Public Review
Initial Study/Mitigated Negative Declaration

Southwest Corner of 5th Street and Central Avenue Warehouse Project

July 2023

Prepared for:

City of Highland
27215 Base Line
Highland, California
92346

CONTACT:
Kim Stater



Prepared by:

DUDEK

605 Third Street
Encinitas, California 92024

CONTACT:
Hayley Ward

DRAFT

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ACM	asbestos-containing materials
ADA	Americans with Disabilities Act
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
bgs	below ground surface
BMP	best management practice
BP	business park
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CH_4	methane
CHRIS	California Historical resources Information System
City	City of Highland
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historic Resources
dB	decibels
dBA	A-weighted decibel
DBH	diameter at breast height
DPM	diesel particulate matter
EPA	U.S. Environmental Protection Agency
EV	electric vehicle
EVWD	East Valley Water District
FICON	Federal Interagency Committee on Noise
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
HARP2	Hotspots Analysis and Reporting Program Version 2
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
I	Interstate

Acronym/Abbreviation	Definition
IS	initial study
LACM	Los Angeles County Museum
L_{dn}	day–night average noise level
LDV	light-duty vehicle
L_{eq}	equivalent noise level over a given period
LOS	level of service
LST	localized significance threshold
MDV	medium-duty vehicle
MM	Mitigation Measure
MND	mitigated negative declaration
MS4	Municipal Separate Storm Sewer System
MT	metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PCE	passenger car equivalent
PM_{10}	particulate matter with an aerodynamic diameter equal to or less than 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter equal to or less than 2.5 microns
PPV	peak particle velocity
PRC	California Public Resources Code
PRIMP	Paleontological Resources Impact Mitigation Program
project	5th Street and Central Avenue Warehouse Project
REL	reference exposure level
ROW	right-of-way
RTP	Regional Transportation Plan
SB	Senate Bill
SBIA	San Bernardino International Airport and Trade Center
SBSD	San Bernardino County Sheriff's Department
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SLF	Sacred Lands File
SO_x	sulfur oxides
SR	State Route

Acronym/Abbreviation	Definition
SVP	Society of Vertebrate Paleontology
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	tribal cultural resource
VMT	vehicle miles traveled
VOC	volatile organic compound
WQMP	Water Quality Management Plan
WRP	Water Reclamation Plant
YSMN	Yuhaaviatam of San Manuel Nation
ZEV	zero emission vehicle

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1 Introduction

1.1 Project Overview

The City of Highland (City) received an application from Patriot Development Partners (project applicant) requesting the following approvals for development of the Southwest Corner of 5th Street and Central Avenue Warehouse Project (project) located at the southwest corner of 5th Street and Central Avenue in Highland, California:

- Conditional Use Permit
- Design Review
- Variance

The project includes design review for the construction of an approximately 53,665-square-foot, one story industrial/warehouse building on an approximately 2.43-acre (gross) property located in the southern part of the City. The project site consists of Assessor's Parcel Numbers (APNs) 1192-561-04, 1192-561-05, 1192-561-06, 1192-561-07, in addition to small portions of parcels 1192-561-01, 1192-561-03, and 1192-561-10, under separate ownership. In addition to the industrial/warehouse building, the project would include a landscaping area, passenger vehicle parking spaces, and tractor-trailer loading docks.

1.2 California Environmental Quality Act Compliance

The City is the lead California Environmental Quality Act (CEQA) agency responsible for the review and approval of the proposed project. Based on the findings of the Initial Study (IS), the City has made the determination that a Mitigated Negative Declaration (MND) is the appropriate environmental document to be prepared in compliance with CEQA (California Public Resources Code, Section 21000 et seq.). As stated in CEQA Section 21064, an MND may be prepared for a project subject to CEQA when an IS has identified no potentially significant effects on the environment.

This draft Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the City as lead agency and is in conformance with Section 15070(a) of the CEQA Guidelines (14 CCR 15000 et seq.). The purpose of the MND and the IS Checklist is to determine any potentially significant impacts associated with the proposed project and to incorporate mitigation measures into the project design, as necessary, to reduce or eliminate the significant or potentially significant effects of the project.

1.3 Public Review Process

In accordance with CEQA, a good faith effort has been made during the preparation of this IS/MND to contact affected agencies, organizations, and persons who may have an interest in this project.

In reviewing the IS/MND, affected public agencies and the interested public should focus on the sufficiency of the document in identifying and analyzing the project's possible impacts on the environment. The Draft IS/MND and related documents are available for review on City's website (https:// https://www.cityofhighland.org/209/Public-Notices).

Comments on the IS/MND may be made in writing before the end of the public review period. Following the close of the public comment period, the City will consider this IS/MND and comments thereto in determining whether to approve the proposed project.

Written comments on the IS/MND should be sent to the following address by August 14, 2023.

City of Highland
Planning Department
27215 Base Line
Highland, California 92346
Contact: Kim Stater
Email: kstater@cityofhighland.org

1.4 Initial Study Checklist

Dudek, under the City's guidance, prepared the project's Environmental Checklist (i.e., IS) per CEQA Guidelines Sections 15063–15065. The CEQA Guidelines include a suggested checklist to indicate whether a project would have an adverse impact on the environment. The checklist is found in Section 3 of this document. Following the Environmental Checklist, Sections 3.1 through 3.21 include an explanation and discussion of each significance determination make in the checklist for the project.

For this IS/MND, the following four possible responses to each individual environmental issue area are included in the checklist:

- Potentially Significant Impact
- Less-than-Significant Impact with Mitigation Incorporated
- Less-than-Significant Impact
- No Impact

The checklist and accompanying explanation of checklist responses provide the information and analysis necessary to assess relative environmental impacts of the project. In doing so, the City will determine the extent of additional environmental review, if any, for the project.

2 Project Description

2.1 Project Location

The project site is located in the southwestern area of the City in western San Bernardino County. The City is bounded by the San Bernardino National Forest to the north and to the east, the City of Redlands to the south, and the City of San Bernardino to the west. The project site is located at the southwest corner of 5th Street and Central Avenue, north of 3rd Street, east of Victoria Avenue, south of 5th Street, and west of Central Avenue (Figure 1, Project Location).

The project site consists of Assessor's Parcel Numbers 1192-561-04, 1192-561-05, 1192-561-06, 1192-561-07, in addition to small portions of parcels 1192-561-01, 1192-561-03 and 1192-561-10, under separate ownership (Figure 2, Aerial Overview). Regional access to the project area is provided by Interstate (I) 10 to the south, I-215 to the west, and State Route (SR) 210 to the east. The site is bounded to the north by scattered low-density residential and commercial land uses, to the west by vacant land, to the east by business park uses, and to the south by the City boundary, with the City of San Bernardino and the San Bernardino Airport located beyond the City limits.

2.2 Environmental Setting

City of Highland

The City of Highland is a mid-sized California city with approximately 55,000 residents and 18 square miles of territory. Within the City, the pattern of land use transitions from predominantly single and multi-family residential and industrial near the San Bernardino International Airport to predominately single-family residential, commercial, service and civic center uses to the north. The eastern areas of the City are mostly made up of planned development areas with various residential types, parks and open space.

Project Site

The approximately 2.43-acre rectangular-shaped project site is located on the southwestern corner of 5th Street and Central Avenue. The project site consists of a partially developed and vacant parcel, a residence, and storage uses. The existing site contains a residential home, paved parking lot, trees, garage type covered structure and a garage type closed structure. The remainder of the site is vacant with landscaping, trees, and loose grass/shrubbery. Vegetation and land covers on the project site consist of developed land with asphalt and disturbed habitat.

The project site is relatively flat with an elevation of approximately 1,165 feet above mean sea level with a regional slope to the west. Soils on site consist of both fill soils and natural soils. Fill soils are present approximately 1 to 2 feet deep and classify as silty sand with occasional gravel to a slightly silty and grained sand with gravel and occasional small cobble. Natural soils on site classify as fine to medium grained silty sand with gravel and occasional cobble. The native soils as encountered were classified to be medium dense and dry to damp.

The City's General Plan Land Use Map designates the project site as Business Park, and the project site is zoned as Business Park within the Airport Influence Zone (Figure 3, General Plan Land Use, and Figure 4, Zoning).

Surrounding Land Uses

The project site is within a developed part of the City and is surrounded by a mix of urbanized land uses. Specific land uses in the immediate project area are depicted in Table 2-1, Surrounding Land Uses.

Table 2-1. Surrounding Land Uses

Direction	Existing Use	General Plan	Zoning Designation
North	5th Street, undeveloped land, and single-family residentials	Low Density, Planned Development, and Business Park	Single Family Residential, Planned Development, and Business Park
East	Industrial uses	Business Park	Business Park
South	3rd Street, undeveloped land, and the San Bernardino International Airport	Business Park	Business Park
West	Vacant parcel & City Creek Bypass Channel	Business Park	Business Park

Note: See Figure 3, General Plan Land Use, and Figure 4, Zoning.

The project site is within the boundary of the proposed Airport Gateway Specific Plan. The Airport Gateway Specific Plan is a public-private partnership project proposed by the Inland Valley Development Agency, a Joint Powers Authority composed of members from the County of San Bernardino, the City of Loma Linda, the City of San Bernardino, and the City of Colton. The Airport Gateway Specific Plan area encompasses 670 acres, inclusive of parcels in the City of Highland and the City of San Bernardino, that would be designated for a mix of industrial uses. The Airport Gateway Specific Plan would be bound by 6th Street to the north, 3rd Street and the San Bernardino International Airport to the south, SR-210 to the east, and Tippecanoe Avenue on the west. The proposed Airport Gateway Specific Plan would border the project site to the south, with industrial uses replacing the existing residential uses in the area (Figure 5, Airport Gateway Specific Plan). This project is currently undergoing environmental review.

2.3 Project Characteristics

The project would include the demolition of one existing structure and construction of an approximately 53,665 square-foot (gross area, inclusive of mezzanine/office spaces), one-story warehouse building on an approximately 2.43-acre site (gross area). The warehouse building would be composed of approximately 49,665 square feet of warehouse space and 4,000 square feet of mezzanine/office space (Figure 6, Site Plan; Figure 7, Conceptual Elevations; and Figure 8, Conceptual Rendering). The warehouse building would have a maximum height of 42.5 feet when measured from grade. Given that the City's Municipal Code allows for a maximum height of 35 feet in the Business Park zone, a minor variance (Variance No. VAR 23-001) is being requested to accommodate the project's height. Internally, the project would have a clear height of 45 feet and would not contain any cold storage space.

Operational Characteristics

The project would support a variety of activities associated with the industrial/warehouse building, including the ingressing and egressing of passenger vehicles and trucks, the loading and unloading of trucks with designated

truck courts/loading areas, and the internal and external movement of materials around the project site via forklifts, pallet jacks, yard hostlers, and similar equipment. In addition, the office space would support general internal office activities related to the industrial/warehouse uses.

On- and Off-Site Improvements

The project would also include improvements along the project's street frontage, including landscaping, fencing, and street and sidewalk improvements. A variety of trees, shrubs, and groundcovers would be planted within the project frontage's landscape setback area, within the landscape areas found around the warehouse building, and throughout the project site (Figure 9, Landscaping Plan).

Site Access and Parking

Access to the project site would be provided by two driveways on the northern portion of the site on 5th Street.

The project would include a total of 66 passenger parking stalls and 5 high dock door parking stalls. A summary of passenger vehicle parking is provided in Table 2-2.

Table 2-2. Summary of Passenger Parking Stalls

Passenger Parking Stall Type	Number of Stalls
Standard	50
Van ADA	1
ADA	2
EV Van ADA	1
EV ADA	2
EV	10
Total Passenger Parking Stalls	66
Trailer Provided (High Dock Doors)	5
Passenger Parking Stalls Required	65.7

Note: ADA = Americans Disability Act, EV = Electric Vehicle.

Utility Improvements

The project site is currently served by domestic water, sanitary sewer, electrical, natural gas, and telecommunication service. The project would connect to the existing facilities located on and in the immediate vicinity of the project site.

Domestic Water

Domestic water would be provided to the project site by the East Valley Water District (EVWD). The EVWD provides domestic water for the City and for portions of both the City and County of San Bernardino. Water service is provided for residential, commercial, industrial, governmental, and landscaping purposes (City of Highland 2006). The project would connect to the existing 30-inch water line and to the proposed domestic water line, both within 5th Street.

Sanitary Sewer

The project site is currently served by the City's sanitary sewer system, EVWD, which has joint powers with the City of San Bernardino to accept all sewage generated within the EVWD's boundaries. The sewage from Highland is treated at the San Bernardino Water Reclamation Plant (WRP), operated by the San Bernardino City Municipal Water District (City of Highland 2006). An existing 24-inch sewer line would connect to the existing sewer line within 5th Street. Future Treatment will take place at the EVWD Sterling Natural Resources Plant, located at the intersection of Del Rosa Drive, between 5th and 6th Streets.

Natural Gas, Electrical Service, and Telecommunications

Southern California Edison would provide electric service. The project would connect to existing electrical lines within 5th Street. Telecommunication services are provided by AT&T. The project would connect to these existing facilities within 5th Street.

Storm Drainage

The project site is currently served by curbs and gutters that direct storm drainage to the two existing storm drain lines within 5th Street (18-inch and 48-inch diameter lines). Under the existing conditions, the western portion of the site is for a residential home and the eastern portion is vacant with scattered grass. The site slopes down by approximately 1.4% from the northeast corner to the southwest corner toward 5th Street. Existing runoff sheet flows onto 5th Street and discharges to the 5th Street storm drain system, and ultimately discharges to the City Creek Bypass Channel, Santa Ana River, and finally to the Prado Basin.

The project would involve the construction of a new engineered storm drain system to collect and treat on-site and off-site stormwater runoff. On-site stormwater will be collected via a series of roof drains, curbs, and gutters, and catch basins before being conveyed to an on-site underground infiltration basin located in the western portion of the site. Prior to entering the infiltration basins, stormwater would be pretreated via a continuous deflection separation system, which separates and traps debris, sediment, oil, and grease from stormwater runoff. The infiltration basins would be designed to allow for stormwater flows to infiltrate into the soils. The infiltration basin would be sized to capture and infiltrate flows for a 100-year design storm, consistent with the San Bernardino County Hydraulics Manual. During an extreme storm event greater than a 100-year storm, flows would be discharged through a proposed 4-inch drain pipe that connects to the existing curb outlet in 5th Street that would lead to the existing 5th Street storm drain system that would serve as an emergency spillway.[1]

2.4 Project Construction and Phasing

The project applicant intends to commence construction on or around January 2024. It is anticipated that construction would take approximately 13 months, concluding in January 2025.[2] Table 2-3 provides a tentative project construction schedule, as used in air quality and greenhouse gas (GHG) emissions impact analysis (refer to

[1] As discussed in further detail in Section 3.10, Hydrology and Water Quality, flows that would be discharged under emergency conditions would be less than what would normally be discharged under the existing conditions.

[2] The analysis assumes a construction start date of January 2024, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions, because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Section 3.3 Air Quality, and Section 3.8, Greenhouse Gas Emissions, of this IS/MND; also see Appendix A-1, Air Quality, Greenhouse Gas Emission, and Energy Modeling Inputs and Outputs).

Table 2-3. Anticipated Project Construction Schedule

Construction Phase	Duration	Phase Start Date	Phase End Date
Demolition	4 weeks	January 2024	January 2024
Site Preparation	1 week	February 2024	February 2024
Grading	2 weeks	February 2024	February 2024
Building Construction	10 months	February 2024	December 2024
Paving	2 weeks	December 2024	January 2025
Architectural Coating	2 weeks	January 2025	January 2025

2.5 Project Approvals

The actions and/or approvals that the City needs to consider for the proposed project include, but are not limited to, the following. This list is preliminary, and may not be comprehensive:

Lead Agency Approvals

- Conditional Use Permit
- Design Review
- Variance

Subsequent non-discretionary approvals (which would require separate processing through the City) would include, but may not be limited to, a demolition permit, grading permit, tentative parcel map, building permits, and occupancy permits.

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3 Initial Study Checklist

1. **Project title:**

   Southwest Corner of 5th Street and Central Avenue Warehouse Project

2. **Lead agency name and address:**

   City of Highland, Planning Department
   27215 Base Line
   Highland, California 92346

3. **Contact person and phone number:**

   Kim Stater, Assistant Community Development Director
   27215 Base Line
   Highland, California 92346
   909.864.6861, ext. 258
   909.862.3180 (fax)
   atafolla@cityofhighland.org

4. **Project location:**

   The project site is a 2.43-acre property at the southwest corner of 5th Street and Central Avenue in the City of Highland, California. The project site consists of Assessor's Parcel Numbers 1192-561-04, 1192-561-05, 1192-561-06, 1192-561-07, in addition to small portions of parcels 1192-561-01, 1192-561-03 and 1192-561-10, under separate ownership. The project site is located at the northwestern corner of 5th Street and Central Avenue, north of 3rd Street, east of Victoria Avenue, south of 5th Street, and west of Central Avenue.

5. **Project sponsor's name and address:**

   Patriot Development Partners
   12126 West Sunset Boulevard
   Los Angeles, California 90049

6. **General plan designation:**

   Business Park

7. **Zoning:**

   Business Park

8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

The project would include the construction of an approximately 53,665-square-foot (gross area, inclusive of mezzanine/office spaces), one-story warehouse building on an approximately 2.43-acre site (gross area). The warehouse building would be composed of approximately 49,665-square-feet of warehouse space and 4,000 square feet of mezzanine/office space.

9. **Surrounding land uses and setting: Briefly describe the project's surroundings:**

The project site is located within a developed part of the City and is surrounded by a mix of urbanized land uses. Specific land uses in the immediate project area include the following:

- **North**: Commercial uses and single-family homes
- **East**: Industrial uses
- **South**: 3rd Street, undeveloped land, the San Bernardino International Airport, and the City of San Bernardino
- **West**: Vacant parcel and City Creek Bypass Flood Control Channel

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

No outside public agency approvals are required.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

Please refer to Section 3.5, Cultural Resources, and 3.18, Tribal Cultural Resources, of this IS/MND.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Kim Stater
Signature

7/6/23
Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS** – Except as provided in Public Resources Code Section 21099, would the project**:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. Scenic vistas and other important visual resources are typically associated with natural landforms such as mountains, foothills, ridgelines, and coastlines. The project site is located within in an area with generally flat terrain near the San Bernardino International Airport. Major scenic vistas that are visible from the project site are the San Bernardino and San Gabriel Mountain ranges. They are located approximately 4 miles northeast and 17 miles northwest of the project site, respectively. The City of Highland's General Plan aims to preserve the views of the San Bernardino Mountains and stretches of open space along City Creek and the Santa Ana River (City of Highland 2006). The project site is 1.5 miles away from the nearest stretches of open space along City Creek and the Santa Ana River. Based on these distances, as well as the presence of existing intervening natural topographical variations and human-made urban features, the project site is not located within the direct viewshed of these scenic vistas. Overall, the project site is located well outside the viewshed of any scenic vistas or other important visual resources. Therefore, no impacts associated with scenic vistas would occur.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Scenic highways and routes are a unique component of the circulation system, as they traverse areas of unusual scenic or aesthetic value. The closest officially designated State Scenic Highway is California SR 38, located approximately 3.2 miles east of the project site (Caltrans 2018). Based on this distance and intervening natural topography and human-made development, the project site is not located within the viewshed of this officially designated state scenic highway. Therefore, no impacts associated with state scenic highways would occur.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-Significant Impact. Visual character describes the aesthetic setting of a project area. The project is located within an urbanized area of the City and is surrounded by similar light industrial/business park land uses. Section 20171 of the California Public Resources Code defines an "urbanized area" as "an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." As of January 1, 2022, the California Department of Finance estimated the population of Highland to be 56,546 persons (DOF 2022a). However, because the City of Highland is bordered by the City of San Bernardino, which has a population that exceeds 100,000 persons, regarding the determination of significance under this threshold, the project would be considered to result in a significant adverse impact if the project design would conflict with applicable zoning and other regulations governing scenic quality. The proposed project would be consistent with the designated business park zoning per the City's Zoning Map.

To ensure that both current and future development within the City is designed and constructed to conform to existing visual character and quality of the surrounding built environment, the City's Municipal Code includes design standards related to building size, height, and setbacks, as well as landscaping, signage, and other visual considerations. The project is consistent with all applicable regulations outlined in the City's Municipal Code related to scenic quality with the exception of Section 16.24.040, which states that building heights are not to exceed 35 feet within the Business Park zone. The proposed warehouse building would have a maximum height of 45 feet. Given that the City's Municipal Code allows for a maximum height of 35 feet in the Business Park Zone, a minor variance (Variance No. VAR 23-001) is being requested to accommodate the project's height. This request for additional height is consistent with other industrial uses in the vicinity. With approval of the minor variance, the project would not conflict with the City's Municipal Code.

The project is required to apply for a Major Design Review by the City's planning commission. This Design Review is intended to ensure that the proposed project would not interfere with existing or future development within the City, and to ensure the project is consistent with the applicable elements of the general plan. Views of utilitarian project components, such as loading areas and mechanical equipment, would be screened from public view to the maximum extent practicable through the project's site plan

design. Parkway and setback landscape areas along the public right-of-way (ROW) would soften views of the project site and enhance the visual quality of the project.

These project components, as well as the City's review of the project's design, would ensure that the project would not degrade the existing visual character and quality of the area. Therefore, impacts would be less than significant.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Short-Term Construction Impacts

No Impact. In accordance with the City's Municipal Code, and the project's proximity to sensitive receptors would limit construction from 7:00 a.m. to 10:00 p.m. (see Section 3.13, Noise, for more details). As such, project construction would be limited to daytime hours and nighttime lighting would not be required until the project is operational. Therefore, no short-term construction impacts associated with light and glare would occur.

Long-Term Operational Impacts

Less-than-Significant Impact. Consistent with Section 16.40.160 of the City's Development Code, all lighting used on the project site is required to be directed and/or shielded to prevent the light from adversely affecting adjacent parcels, and no structures or features that create adverse glare effects are permitted. Thus, all exterior lighting would be shielded/hooded to prevent light trespass onto nearby properties. A Photometrics Plan, prepared by a certified engineer, must be approved by the Planning Commission in conjunction with the Conditional Use Permit. Additionally, the project would use a variety of non-reflective materials, and although some new reflective improvements (i.e., windows and building front treatments) would be introduced onto the project site, the project as a whole would not be considered a source of glare in the project area. Therefore, long-term impacts associated with light and glare would be less than significant.

3.2 Agriculture and Forestry Resources

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES** – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The project site is located in a developed portion of the City. According to the California Department of Conservation's California Important Farmland Finder, the project site and surrounding area are identified as Other Land (DOC 2018). "Other Land" is the designation of vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres (DOC 2018). The project site is not located on or adjacent to any parcels identified as Prime Farmland, Unique Farmland, or

Farmland of State Importance (collectively called Important Farmland). Because no Important Farmland is located on the project site and the surrounding area, development of the project would not convert or otherwise impact any Important Farmland. Therefore, no impacts associated with conversion of Important Farmland would occur.

b) ***Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

No Impact. Refer to Section 3.2(a).

c) ***Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?***

No Impact. Refer to Section 3.2(a). The project site is zoned as Business Park and is within a developed area. There are no areas zoned for forest land within the vicinity of the project site. Therefore, no impacts associated with forest land would occur.

d) ***Would the project result in the loss of forest land or conversion of forest land to non-forest use?***

No Impact. Refer to Section 3.2(c). The proposed project would not involve the conversion of forest land to non-forest use. Therefore, no impact with forest land would occur.

e) ***Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?***

No Impact. Refer to Section 3.2(a). The project site is zoned as Business Park and is located within a developed area. Further, no off-site improvement associated with the project would result in changes to other properties designated as Farmland or forest land. There are no areas zoned for agricultural use or identified as forest land within the vicinity of the project site. Therefore, no impacts associated with forest land would occur.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. The project site is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, San Bernardino Counties, and all of Orange County, and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

SCAQMD administers SCAB's Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The 2022 AQMP (SCAQMD 2022) was adopted by the SCAQMD Governing Board in December 2022. The SCAQMD 2022 AQMP was developed to address the attainment of the 2015 national 8-hour ozone ambient air quality standard (70 parts per billion) for the SCAB and Coachella Valley. The 2022 AQMP provides actions, strategies, and steps needed to reduce air pollutant emissions and meet the ozone standard by 2037 (SCAQMD 2022).

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the 2022 AQMP and if it would interfere with the region's ability to comply with federal and state air quality standards. SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3, of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- Consistency Criterion No. 1: Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- Consistency Criterion No. 2: Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A-1. As presented in Section 3.3(b), the project would not generate construction or

operational criteria air pollutant emissions that exceed the SCAQMD's thresholds, and the project would therefore be consistent with Criterion No. 1.

The second criterion regarding the potential of the project to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not in conflict with or obstructing implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (SCAQMD 1993). SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, and employment by industry) developed by Southern California Association of Governments (SCAG) for its 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2020). SCAQMD uses this document, which is based on general plans for cities and counties in the SCAB, to develop the AQMP emissions inventory (SCAQMD 2022). The SCAG RTP/SCS and associated Regional Growth Forecast are generally consistent with the local plans; therefore, the 2022 AQMP is generally consistent with local government plans.

The City's Zoning Map designates the project site as Business Park (BP). According to Section 16.24.020 (A), the primary purpose of the BP District is to provide appropriate regulations and suitable locations for light industrial, research and development, and office-based firms seeking pleasant and attractive working environments, and for business support services and commercial uses requiring large parcels. The Municipal Code identifies Warehousing and Wholesaling as permitted, subject to a conditional use permit application. Therefore, the project would be consistent with the existing zoning of the project site and does not propose a change in land use designation. As such, since the proposed project is not anticipated to result in residential population growth or generate an increase in employment that would conflict with existing employment-population projections, it would not conflict with or exceed the assumptions in the 2022 AQMP. Accordingly, the project is consistent with the SCAG RTP/SCS forecasts used in development of the SCAQMD AQMP.

In summary, based on the considerations presented for the two criteria, impacts relating to the project's potential to conflict with or obstruct implementation of the applicable AQMP would be less than significant.

b) 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 federal or state ambient air quality standard?

Less-than-Significant Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used to determine whether a project's individual emissions would have a cumulatively considerable contribution to air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003a).

A quantitative analysis was conducted to determine whether the project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS or cumulatively contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ozone (O_3), nitrogen dioxide

(NO_2), carbon monoxide (CO), sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), which are important because they are precursors to O_3, as well as CO, sulfur oxides (SO_x), PM_{10}, and $PM_{2.5}$.

Regarding NAAQS and CAAQS attainment status,[3] the SCAB is designated as a nonattainment area for federal and state O_3 and $PM_{2.5}$ standards (CARB 2022; EPA 2023a). The SCAB is also designated as a nonattainment area for state PM_{10} standards; however, it is designated as an attainment area for federal PM_{10} standards. The SCAB is designated as an attainment area for federal and state CO and NO_2 standards, as well as for state sulfur dioxide standards. Although the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.[4]

The project would result in emissions of criteria air pollutants for which the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. The SCAQMD CEQA Air Quality Significance Thresholds, as revised in March 2023, set forth quantitative emission significance thresholds for criteria air pollutants, which, if exceeded, would indicate the potential for a project to contribute to violations of the NAAQS or CAAQS. Table 3.3-1 lists the revised SCAQMD Air Quality Significance Thresholds (SCAQMD 2023a).

Table 3.3-1. South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	**Construction (Pounds per Day)**	**Operation (Pounds per Day)**
VOCs	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Lead[a]	3	3
TACs and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥10 in 1 million Cancer Burden >0.5 excess cancer cases (in areas ≥1 in 1 million) Chronic and acute hazard index ≥1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2023a.

[3] An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by the EPA and CARB, respectively. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

[4] Re-designation of the lead NAAQS designation to attainment for the Los Angeles County portion of the SCAB is expected based on current monitoring data. The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

Notes: VOC = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; TAC = toxic air contaminant; SCAQMD = South Coast Air Quality Management District.
GHG emissions thresholds for industrial projects, as added in the March 2015 revision to the SCAQMD Air Quality Significance Thresholds, were not include included in this table as they are addressed within the GHG emissions analysis and not the air quality analysis.

[a] The phase out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

[b] TACs include carcinogens and noncarcinogens.

The project would result in a cumulatively considerable net increase for O_3, which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 3.3-1. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an O_3 significance threshold (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (i.e., VOCs and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods.

The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.13 was used to estimate emissions from construction and operation of the project.[5] The following discussion quantitatively evaluates project-generated construction and operational emissions and impacts that would result from implementation of the project.

Construction Emissions

Construction of the project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings and asphalt pavement application) and off-site sources (e.g., vendor trucks, haul trucks, and worker vehicle trips). Specifically, entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$. Construction emissions can vary substantially from day to day depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

Emissions from the construction phase of the project were estimated using CalEEMod default values. For the purpose of conservatively estimating project emissions, construction was modeled beginning in January 2024 and concluding in January 2025[6] and lasting approximately 13 months. The analysis contained herein is based on the following schedule assumptions (duration of phases is approximate):

- Demolition: 4 weeks (January 2024)
- Site preparation: 1 week (February 2024)
- Grading: 2 weeks (February 2024)
- Building construction: 10 months (February 2024–December 2024)

[5] CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with construction and operational activities from a variety of land use projects, including warehouses.

[6] The analysis assumes a construction start date of January 2024, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions, because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

- Paving: 2 weeks (December 2024–January 2025)
- Application of architectural coatings: 2 weeks (January 2025)

Construction modeling assumptions for equipment and vehicles are provided in Table 3.3-2. Equipment mix and horsepower were based on CalEEMod default values, including equipment load factor. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week.

Table 3.3-2. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Daily Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition	14	4	2	Concrete/Industrial Saws	1	8
				Excavators	3	8
				Rubber Tired Dozers	2	8
Site Preparation	6	4	0	Rubber Tired Dozers	3	8
				Tractors/Loaders/Backhoes	4	8
Grading	10	4	12	Graders	1	8
				Rubber Tired Dozers	1	8
				Tractors/Loaders/Backhoes	2	8
Building Construction	24	10	0	Cranes	1	7
				Forklifts	1	6
				Generator Sets	1	8
				Tractors/Loaders/Backhoes	1	6
				Welders	3	8
Paving	14	0	0	Cement and Mortar Mixers	1	8
				Pavers	1	8
				Paving Equipment	1	8
				Rollers	1	7
				Tractors/Loaders/Backhoes	1	8
Architectural Coating	6	0	0	Air Compressors	1	6

Emissions generated during construction (and operation) of the project are subject to the rules and regulations of the SCAQMD. Rule 403, Fugitive Dust, requires the implementation of measures to control the emission of visible fugitive/nuisance dust, such as wetting soils that would be disturbed. It was assumed that the active sites would be watered at least two times daily in compliance with requirements of SCAQMD standard dust control measures in Rule 403. The application of architectural coatings, such as exterior/interior paint and other finishes, and the application of asphalt pavement would also produce VOC

emissions; however, the contractor is required to procure architectural coatings that comply with the requirements of SCAQMD's Rule 1113, Architectural Coatings.[7]

Table 3.3-3 shows the estimated maximum daily construction emissions associated with the construction phase of the project.

Table 3.3-3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds Per Day					
2024	2.16	17.1	18.7	0.03	3.89	2.13
2025	0.05	4.69	7.23	0.01	0.37	0.22
SCAQMD Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix A-1.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.
These estimates reflect control of fugitive dust required by SCAQMD Rule 403.

As shown in Table 3.3-3, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ during project construction, and short-term construction impacts would be less than significant.

Operational Emissions

Emissions from the operational phase of the project were estimated using CalEEMod 2022.1.1.13. Operational year 2025 was assumed following completion of construction.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2021). Consumer product VOC emissions were estimated in CalEEMod based on the floor area of buildings and default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

[7] SCAQMD Rule 1113, Architectural Coatings, requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emissions factor is based on the VOC content of the surface coatings, and SCAQMD's Rule 1113, Architectural Coatings, governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SCAQMD 2022). CalEEMod default values were assumed, including the surface area to be painted, the VOC content of architectural coatings, and the reapplication rate of 10% of area per year.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use were estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

Mobile Sources

Following the completion of construction activities, the project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of employees and visitors of the project. Based on the trip generation for the project (as shown in Section 3.17), there would be 92 total vehicle trips per day, 25 of which are trucks and 67 are passenger cars. The truck breakdown by axle was also taken from the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 2014. CalEEMod was used to estimate emissions from proposed vehicular sources (refer to Appendix A-1). CalEEMod default data, trip characteristics, variable start information, and emissions factors, were used for the model inputs. Project-related traffic was assumed to include a mixture of vehicles in accordance with the associated use (as discussed below), as modeled within CalEEMod, which is based on the California Air Resources Board (CARB) EMFAC2021 model. Emission factors representing the vehicle mix and emissions for 2025 were used to estimate emissions associated with vehicular sources. Two land uses in CalEEMod were used to model emissions from mobile sources. The "unrefrigerated warehouse-no rail" land use was used to model passenger vehicles and the "unrefrigerated warehouse- rail" was used to model larger trucks. The trip rates (as stated above) were apportioned to each land use accordingly. The fleet mix for trucks was determined based off the SCAQMD Warehouse study and included the following vehicle categories: 2-axle trucks (50% LHD1 and 50% LHD2), 3-axle trucks (MHD), and 4-axle trucks (HHD). The fleet mix for passenger vehicles was assumed consistent with the EMFAC fleet mix for the air basin for the following vehicle categories: LDA, LDT1, and LDT2. Vehicle trip lengths were assumed to be 40 miles for truck trips (in accordance with SCAQMD guidance) and the CalEEMod defaults for passenger car trips.

Off-Road Equipment (Forklifts)

The exact operational off-road equipment is unknown at this time; however, in a good faith effort to include anticipated forklifts, forklifts were estimated based on the warehouse square footage and the SCAQMD study, as described below.

The SCAQMD published a summary of operational survey results from 34 operating high-cube warehouses (SCAQMD 2014). The SCAQMD survey reported an average of 0.12 forklifts/pallet jacks per 1,000 square

feet of building area, which was applied to the project. Note that this estimate is for total forklifts and pallet jacks. Pallet jacks are small as they are primarily used to lift small loads in tight quarters (and are electric or manual); therefore, assuming all pieces of equipment are forklifts is conservative. For the project, total of 7 forklifts the forklifts were modeled as diesel All 7 forklifts were assumed to operate 24 hours per day and 7 days per week at the project site. CalEEMod was used to estimate emissions from diesel powered forklifts, see Appendix A-1.

Table 3.3-4 presents the maximum daily emissions associated with operation of the project in 2025 at buildout. The values shown are the maximum summer and winter daily emissions results from CalEEMod. Complete details of the emissions calculations are provided in Appendix A-1.

Table 3.3-4. Estimated Maximum Daily Operation Criteria Air Pollutant Emissions

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Proposed Project						
Mobile	0.51	3.35	4.77	0.03	0.81	0.21
Area	1.29	0.00	0.00	0.00	0.00	0.00
Energy	0.09	0.82	0.69	<0.01	0.06	0.06
Off-road (Forklifts)	1.95	15.5	21.9	0.03	0.82	0.75
Total	**2.54**	**19.7**	**26.30**	**0.07**	**1.69**	**1.02**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District; <0.01 = reported value less than 0.01.
See Appendix A-1 for complete results.

As shown in Table 3.3-4, maximum daily operational emissions of VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ generated by the project would not exceed the SCAQMD's significance thresholds, and long-term operational impacts would be less than significant.

As previously discussed, the SCAB has been designated as a federal nonattainment area for O_3 and $PM_{2.5}$ and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. However, as indicated in Tables 3.3-3 and 3.3-4, project-generated construction and operational emissions would not exceed the SCAQMD emission-based significance thresholds for VOCs, NO_x, PM_{10}, or $PM_{2.5}$.

Cumulative localized impacts would potentially occur if a project were to occur concurrently with another off-site project. Schedules for potential future projects near the project area are currently unknown; therefore, potential impacts associated with two or more simultaneous projects would be considered speculative.[8] However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM_{10} and $PM_{2.5}$ emissions would be reduced because all future projects would be subject to

[8] The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145).

SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all sites in the SCAQMD. Additionally, cumulative VOC emissions would be reduced because all future projects would be subject VOC content of the surface coatings, SCAQMD's Rule 1113, Architectural Coatings, governs the VOC content for interior and exterior coatings.

Therefore, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant during construction and operation.

Health Effects of Criteria Air Pollutants

Construction and operation of the project would generate criteria air pollutant emissions; however, estimated construction and operational emissions would not exceed the SCAQMD mass-emission daily thresholds as shown in Tables 3.3-3 and 3.3-4, respectively. As previously discussed, the SCAB has been designated as a federal nonattainment area for O_3 and $PM_{2.5}$ and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$.

Health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2021). VOCs and NO_x are precursors to O_3, for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 ambient air quality standards tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative because of the lack of quantitative methods to assess this impact. Because construction and operation of the project would not result in O_3 precursor emissions (i.e., VOCs or NO_X) that would exceed the SCAQMD thresholds, as shown in Tables 3.3-3 and 3.3-4, the project is not anticipated to substantially contribute to regional O_3 concentrations and their associated health impacts.

Health effects associated with NO_x include lung irritation and enhanced allergic responses (CARB 2021). Construction and operation of the project would not generate NO_x emissions that would exceed the SCAQMD mass daily thresholds; therefore, construction and operation of the project is not anticipated to contribute to exceedances of the NAAQS and CAAQS for NO_2 or contribute to associated health effects. In addition, the SCAB is designated as in attainment of the NAAQS and CAAQS for NO_2, and the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2021). CO tends to be a localized impact associated with congested intersections. CO hotspots were discussed previously as a less-than-significant impact. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

Health effects associated with PM_{10} and $PM_{2.5}$ include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2021). As with O_3 and NO_X, and as shown in Tables 3.3-3 and 3.3-4, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SCAQMD's thresholds. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause an increase in related health effects for this pollutant.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact with Mitigation Incorporated. The project would not expose sensitive receptors to substantial pollutant concentrations, as evaluated below.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include sites such as residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The nearest sensitive receptors are a childcare center immediately east of the project site and a residence immediately south east of the project site.

Localized Significance Thresholds

The SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of project activities. The impacts were analyzed using methods consistent with those in the SCAQMD's Final Localized Significance Threshold Methodology (SCAQMD 2009). The project is located within Source-Receptor Area 34 (Central San Bernardino Valley). This analysis applies the SCAQMD LST values for a 2-acre site within Source-Receptor Area 34 with a receptor distance of 25 meters (82 feet), which is the shortest available distance provided in the SCAQMD's methodology.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with off-road equipment exhaust and fugitive dust generation. According to the Final Localized Significance Threshold Methodology, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2009). Trucks and worker trips associated with the project are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways since emissions would be relatively brief in nature and would cease once the vehicles pass through the main streets. Off-site emissions from truck trips were limited to 1,000 feet of estimated on-site activity within the LST analysis. The maximum daily on-site emissions generated by construction of the project in each construction year are presented in Table 3.3-5 and compared to the SCAQMD localized significance criteria for Source-Receptor Area 34 to determine whether project-generated on-site emissions would result in potential LST impacts.

Table 3.3-5. Construction Localized Significance Thresholds Analysis

	NO_2	CO	PM_{10}	$PM_{2.5}$
	Pounds per Day (On Site)			
Maximum	*17.1*	*18.7*	*3.89*	*2.13*
SCAQMD LST Criteria[a]	*170*	*972*	*7*	*4*
Threshold Exceeded?	No	No	No	No

Source: SCAQMD 2009; Appendix A-1.
Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.

Maximum on-site emissions occurred during the overlap of the following phases: grading and site preparation.

[a] LST are shown for a 2-acre disturbed area corresponding to a distance to a sensitive receptor of 25 meters in Source-Receptor Area 34 (Central San Bernardino Valley).

As shown in Table 3.3-5, proposed construction activities would not generate emissions more than site-specific LSTs for NO_x, CO PM_{10} and $PM_{2.5}$. Thus, impacts would be less than significant.

Carbon Monoxide Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed "CO hotspots." The transport of CO is extremely limited, as it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (LOS) (LOS E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots. As discussed in Section 3.17, As the proposed project is forecast to generate 13 AM peak hour trips and 16 PM peak hour trips (PCE-adjusted).

At the time that the SCAQMD Handbook (SCAQMD 1993) was published, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO. In 2007, the SCAQMD was designated in attainment for CO under both the CAAQS and NAAQS as a result of the steady decline in CO concentrations in the SCAB due to turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities. The SCAQMD conducted CO modeling for the 2003 AQMP[9] (SCAQMD 2003b) for the four worst-case intersections in the SCAB:

1. Wilshire Boulevard and Veteran Avenue
2. Sunset Boulevard and Highland Avenue
3. La Cienega Boulevard and Century Boulevard
4. Long Beach Boulevard and Imperial Highway

At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. The 2003 AQMP projected 8-hour CO concentrations at these four intersections for 1997 and from 2002 through 2005. From years 2002 through 2005, the maximum 8-hour CO concentration was 3.8 parts per million at the Sunset Boulevard and Highland Avenue intersection in 2002 and the maximum 8-hour CO concentration was 3.4 parts per million at the Wilshire Boulevard and Veteran Avenue in 2002.

Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least over 100,000 vehicles per day. Because the project is not anticipated to increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day, a CO hotspot is not anticipated to occur.

[9] SCAQMD's CO hotspot modeling guidance has not changed since 2003.

Based on these considerations, the project would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. This conclusion is supported by the analysis in Section 3.17, which demonstrates that traffic impacts would be less than significant. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. Based on these considerations, the project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

In addition to impacts from criteria pollutants, certain projects may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or hazardous air pollutants. State law has established the framework for California's TAC identification and control project, which is generally more stringent than the federal project, and is aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and is adopting appropriate control measures for sources of these TACs.

In an abundance of caution, a voluntary Health Risk Assessment (HRA) was performed for construction and operation of the project, as discussed below is presented in Appendix A-2.

The most recent guidance from the Office of Environmental Health Hazard Assessment (OEHHA) is the 2015 Risk Assessment Guidelines Manual (OEHHA 2015), which was adopted in 2015 to replace the 2003 HRA Guidance Manual. The Children's Environmental Health Protection Act of 1999 (Senate Bill 25), which requires explicit consideration of infants and children in assessing risks from air toxics, required revisions of the methods for both non-cancer and cancer risk assessment and of the exposure assumptions in the 2003 HRA Guidance Manual. Cancer risk parameters, such as age-sensitivity factors, daily breathing rates, exposure period, fraction of time at home, and cancer potency factors were based on the values and data recommended by OEHHA as implemented in HARP2. SCAQMD's Modeling Guidance for American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) (SCAQMD 2018) and Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (SCAQMD 2003c) provide guidance to perform dispersion modeling for use in HRAs within the SCAB.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SCAQMD recommends a carcinogenic (cancer) risk threshold of 10 in one million. Some TACs increase noncancer health risk due to long-term (chronic) exposures. The Chronic Hazard Index (HIC) is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The HIC estimates for all receptor types used the OEHHA-derived calculation method, which uses high end exposure parameters for the inhalation and next top two exposure pathways and mean exposure parameters for the remaining pathways for non-cancer risk estimates. The HIC is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system.[10] A hazard index less than 1.0 means that adverse health effects are not expected. Within this analysis, noncarcinogenic exposures of less than 1.0 are considered less than significant. The SCAQMD recommends a HIC significance threshold of 1.0 (project increment) and an acute hazard index of 1.0.

[10] The HIC estimates for all receptor types used the OEHHA-derived calculation method (OEHHA 2015).

The greatest potential for TAC exposure from project construction and operation is from diesel particulate matter (DPM), as the exhaust from diesel engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts. No short-term, acute relative exposure values are established and regulated and therefore these are not addressed in this assessment.

The dispersion modeling was performed using AERMOD, which is the model SCAQMD requires for atmospheric dispersion of emissions. AERMOD (Version 21112) is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources, building downwash, and simple and complex terrain (EPA 2018).

Construction Health Risk

Construction Health Risk Assessment

An HRA was performed to evaluate potential health risk associated with construction of the project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting construction HRA documentation, including detailed assumptions, is presented in Appendix A-2.

For risk assessment purposes, PM_{10} in diesel exhaust is considered DPM, originating mainly from off-road equipment operating at a defined location for a given length of time at a given distance from sensitive receptors. Less-intensive, more-dispersed emissions result from on road vehicle exhaust (e.g., heavy-duty diesel trucks). For the construction HRA, the CalEEMod scenario for the project was adjusted to reduce diesel truck one-way trip distances to 1,000 feet (0.19 miles) to estimate emissions from truck pass-by at proximate receptors.

The air dispersion modeling methodology was based on generally accepted modeling practices of SCAQMD (SCAQMD 2021a). Air dispersion modeling was performed using the EPA's American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 21112 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 11.2 The HRA followed the Office of Environmental Health Hazard Assessment (OEHHA) 2015 guidelines (OEHHA 2015) and SCAQMD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected consistent with the SCAQMD and EPA guidance and identified as representative of the project site and project activities. Principal parameters of this modeling are presented in Table 3.3-6.

Table 3.3-6. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters

Parameter	Details
Meteorological Data	AERMOD-specific meteorological data for the Redlands air monitoring station (RDLD) was used for the dispersion modeling (SCAQMD 2023b). A 5-year meteorological data set from 2012 through 2016 was obtained from the SCAQMD in a preprocessed format suitable for use in AERMOD.
Urban versus Rural Option	Urban dispersion option was selected due to the developed nature of the project area and per SCAQMD guidelines.
Terrain Characteristics	The elevation of the site is 526 feet (481 meters) above sea level.

Table 3.3-6. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters

Parameter	Details
Elevation Data	Digital elevation data were imported into AERMOD and elevations were assigned to receptors and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View in the United States Geological Survey's National Elevation Dataset format with a resolution of 1 arc-second resolution, consistent with the SCAQMD guidance (SCAQMD 2021a).
Source Release Characterizations	Air dispersion modeling of DPM emissions was conducted assuming the off-road equipment would operate in accordance with the modeling scenario estimated in CalEEMod (Appendix A-1). The construction equipment and on-site truck travel DPM emissions were modeled as a line of adjacent volume sources across the project site to represent project construction with a release height of 3.4 meters, plume height of 6.8 meters, and plume width of 8.6 meters (EPA 2018).

Note: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; SCAQMD = South Coast Air Quality Management District; DPM = diesel particular matter; CalEEMod = California Emissions Estimator Model.
See Appendix A-1.

Regarding receptors, the construction scenario used a 1-kilometer by 1-kilometer Cartesian receptor grid with 50-meter spacing to establish the impact area and evaluate locations of maximum health risk impact (SCAQMD 2021a). Discrete receptors were placed over residential and daycare facilities in closest proximity to the site.

The health risk calculations were performed using the Hotspots Analysis and Reporting Program Version 2 (HARP2) Air Dispersion and Risk Tool (ADMRT, dated 22118). AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1 gram per second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual, and the non-cancer chronic health indices. There is no reference exposure level (REL) for acute health impacts from DPM, and, thus, acute risk was not evaluated.

Cancer risk is defined as the increase in probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased chances in one million. Maximum Individual Cancer Risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations. For the purposes of this construction HRA, given the less-than-lifetime exposure period, and the higher breathing rates and sensitivity of children to TACs, the cancer risk calculation assumes that the exposure would affect children early in their lives. The 13-month exposure duration was assumed to start during the third trimester of pregnancy through 13 months of age based on the duration of construction. The exposure pathway for DPM is inhalation only.

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs since some TACs increase non-cancer health risk due to long-term (chronic) exposures and some TACs increase non-cancer health risk due to short-term (acute) exposures. No short-term, acute relative exposure level has been established for DPM; therefore, acute impacts of DPM are not addressed in the HRA. Chronic exposure is evaluated in the construction HRA. Non-carcinogenic risks are quantified by calculating a hazard index, expressed as the ratio between the ambient pollutant concentration and its toxicity or REL, which is

a concentration at or below which health effects are not likely to occur. The chronic hazard index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. A hazard index less of than one (1.0) means that adverse health effects are not expected.

The Maximum Individual Cancer Risk and the Chronic Hazard Index for residential receptors as a result of project construction are presented in Table 3.3-7.

Table 3.3-7. Construction Health Risk Assessment Results – Unmitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk–Residential	Per Million	29.63	10	**Potentially Significant**
Chronic Hazard Index–Residential	Index Value	0.01	1.0	Less than Significant

Source: SCAQMD 2019.
Notes: CEQA = California Environmental Quality Act.
See Appendix A-2.

As shown in Table 3.3-7, project construction activities would result in a Residential Maximum Individual Cancer Risk of 29.63 in 1 million, which exceeds the significance threshold of 10 in 1 million. Project construction would result in a Residential Chronic Hazard Index of 0.01 which is below the 1.0 significance threshold. Implementation of MM-AQ-1 would reduce project construction-generated DPM missions to the extent feasible.

MM-AQ-1: Tier 4 Interim Engines. To reduce the potential for criteria air pollutants, specifically particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), as a result of construction of the project, the applicant shall:

Prior to the start of construction activities, ensure that all 75 horsepower or greater diesel-powered equipment are powered with California Air Resources Board (CARB)-certified Tier 4 interim engines, except where the project applicant establishes to the satisfaction of the City of Highland (City) that Tier 4 interim equipment is not available.

An exemption from these requirements may be granted by the City in the event that the City documents that equipment with the required tier is not reasonably available and corresponding reductions in criteria air pollutant emissions are achieved from other construction equipment. Before an exemption may be considered by the City, the applicant shall be required to demonstrate that two construction fleet owners/operators in San Bernardino County were contacted and that those owners/operators confirmed Tier 4 interim equipment could not be located within San Bernardino County.

The HRA results after incorporation of MM-AQ-1 are presented in Table 3.3-8.

Table 3.3-8. Construction Health Risk Assessment Results – Mitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk–Residential	Per Million	5.38	10	Less than Significant
Chronic Hazard Index–Residential	Index Value	0.005	1.0	Less than Significant

Source: SCAQMD 2019.
Notes: CEQA = California Environmental Quality Act.
See Appendix A-2.

As shown in Table 3.3-8, Implementation of MM-AQ-1 would reduce construction-generated health risks to levels below SCAQMD thresholds. Thus, impacts would be less than significant with mitigation.

Operational Health Risk

An HRA was performed to evaluate potential health risk associated with operation of the project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting operational HRA documentation, including detailed assumptions, is presented in Appendix A-2.

CARB's Air Quality and Land Use Handbook: A Community Health Perspective encourages consideration of the health impacts of distribution centers that accommodate more than 100 trucks per day on sensitive receptors sited within 1,000 feet from the source in the land use decision-making process (CARB 2005). For the operational health risk assessment (included as Appendix A-2), operational year 2025 was assumed, consistent with completion of project construction. Emissions from the operation of the project include truck trips and truck idling emissions. For risk assessment purposes, PM_{10} in diesel exhaust is considered DPM, originating mainly from trucks traveling on site and off site and trucks idling at the loading docks. Truck travel and idling emission rates were obtained from CARB's EMFAC2021. Emission factors representing the vehicle mix and emissions for 2025 were used to estimate emissions associated with operation of the project. Truck idling would be limited to 5 minutes in accordance with CARB's adopted Airborne Toxic Control Measure; however, truck idling was conservatively assumed to idle for 15 minutes.[11] Therefore, the analysis conservatively overestimates DPM emissions from idling. Deliveries would occur every day of the week. A total of seven forklifts were assumed to operate with the project loading dock areas. The forklifts were modeled as diesel powered under the unmitigated HRA analysis.

Conservatively, a 2025 EMFAC2021 run was conducted and a constant 2025 emission factor data set was used for the entire duration of the analysis (i.e., 30 years). Use of the 2025 emission factors would overstate potential impacts since this approach does not include reductions in emissions due to fleet turnover or cleaner technology with lower emissions. The truck travel DPM emissions were calculated by applying the exhaust PM_{10} emission factor from EMFAC2021 and the total truck trip number over the length of the distance traveled. In addition, the on-site truck idling exhaust emissions were calculated by applying the idle exhaust PM_{10} emission factor from EMFAC2021 and total truck trip over the total idling time (i.e., 15 minutes). The truck traffic was modeled as a line of adjacent volume sources with 100% of the truck traffic entering and exiting the project site north via west 5th Street and head west on 5th Street

[11] Although the project is required to comply with CARB's idling limit of 5 minutes, on-site idling emissions was estimated for 15 minutes of truck idling, which would take into account on-site idling while the trucks are waiting to pull up to the loading dock, idling at the loading dock, and idling during check-in and check-out.

to SR-210. The forklifts and truck idling were modeled as a line of adjacent volume sources operating within the truck loading bay area.

As previously described, health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SCAQMD recommends a carcinogenic (cancer) risk threshold of 10 in 1 million. Some TACs increase noncancer health risk due to long-term (chronic) exposures. A hazard index less than one (1.0) means that adverse health effects are not expected. Within this analysis, noncarcinogenic exposures of less than 1.0 are considered less than significant. The exhaust from diesel engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts. No short-term, acute relative exposure values are established and regulated and are therefore not addressed in this assessment.

The air dispersion modeling methodology was based on generally accepted modeling practices of SCAQMD (SCAQMD 2021a). Air dispersion modeling was performed using the EPA's AERMOD (Version 21112) modeling system with the Lakes Environmental Software implementation/user interface, AERMOD View Version 10.2.1. The HRA followed the Office of Environmental Health Hazard Assessment (OEHHA) 2015 guidelines (OEHHA 2015) and SCAQMD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected consistent with the SCAQMD and EPA guidance and identified as representative of the project site and project activities. Principal parameters of this modeling are presented in Table 3.3-9.

Table 3.3-9. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters

Parameter	Details
Meteorological Data	AERMOD-specific meteorological data for the Redlands air monitoring station (RDLD) was used for the dispersion modeling (SCAQMD 2021b). A 5-year meteorological data set from 2012 through 2016 was obtained from the SCAQMD in a preprocessed format suitable for use in AERMOD.
Urban versus Rural Option	Urban dispersion option was selected due to the developed nature of the project area and per SCAQMD guidelines.
Terrain Characteristics	The elevation of the site is 526 feet (481 meters) above sea level.
Elevation Data	Digital elevation data were imported into AERMOD and elevations were assigned to receptors and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View in the United States Geological Survey's National Elevation Dataset format with a resolution of 1 arc-second resolution, consistent with the SCAQMD guidance (SCAQMD 2021a).
Source Release Characterizations	Air dispersion modeling of operational activities was conducted using emissions generated using EMFAC2021 and CalEEMod. Off-site and on-site truck travel were modeled as a line of adjacent volume sources, and based on EPA methodology, the modeled sources would result in a release height of 5 meters, a plume height of 10 meters, and a plume width of 9 meters (SCAQMD 2008a). Forklifts were modeled as a line of adjacent volume sources, and based on EPA methodology, the modeled sources would result in a release height of 3.4 meters, a plume height of 6.8 meters, and a plume width of 8.6 meters (EPA 2018).

Note: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; SCAQMD = South Coast Air Quality Management District; EPA = U.S. Environmental Protection Agency.
See Appendix A-2.

Regarding receptors, the operational HRA scenario built from the construction HRA's 1-kilometer by 1-kilometer Cartesian receptor grid with 50-meter spacing to establish the impact area and evaluate locations of maximum health risk impact (SCAQMD 2021a). The operational scenario added receptors at 50-meter spacing at sensitive receptor areas adjacent to the truck routes discussed above.

The health risk calculations were performed using the HARP2 Air Dispersion and Risk Tool (ADMRT, dated 19121). AERMOD was run with all sources or source groups emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1 gram per second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual, and the non-cancer chronic health indices. There is no reference exposure level (REL) for acute health impacts from DPM, and, thus, acute risk was not evaluated.

Cancer risk is defined as the increase in probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased chances in one million. Maximum Individual Cancer Risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations. The HRA assumes exposure would start in the third trimester of pregnancy through 30 years for all residential sensitive receptor locations. The exposure pathway for DPM is inhalation only.

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs since some TACs increase non-cancer health risk due to long-term (chronic) exposures and some TACs increase non-cancer health risk due to short-term (acute) exposures. No short-term, acute relative exposure level has been established for DPM; therefore, acute impacts of DPM are not addressed in the HRA. Chronic exposure is evaluated in the operational HRA. Non-carcinogenic risks are quantified by calculating a hazard index, expressed as the ratio between the ambient pollutant concentration and its toxicity or REL, which is a concentration at or below which health effects are not likely to occur. The chronic hazard index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. A hazard index less of than one (1.0) means that adverse health effects are not expected.

The results of the health risk assessment during operation are provided in Table 3.3-10.

Table 3.3-10. Operational Health Risk Assessment Results - Unmitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk–Residential	Per Million	65.3	10	**Potentially Significant**
Chronic Hazard Index–Residential	Index Value	0.01	1.0	Less than Significant

Source: SCAQMD 2019.
Notes: CEQA = California Environmental Quality Act.
See Appendix A-2.

As shown in Table 3.3-10, project operation would result in a Residential Maximum Individual Cancer Risk of 65.3 in 1 million, which is above the significance threshold of 10 in 1 million. Project operation would result in a Residential Chronic Hazard Index of 0.01, which is below the 1.0 significance threshold. The project operational TAC health risk impacts would be potentially significant.

MM-AQ-2: Operational Forklifts. The City shall require that all forklifts used during operation of the project be electric powered or fueled with natural gas.

The results of the health risk assessment during operation including mitigation measure **MM-AQ-2** are provided in Table 3.3-11.

Table 3.3-11. Operational Health Risk Assessment Results – Mitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk–Residential	Per Million	1.0	10	Less than Significant
Chronic Hazard Index–Residential	Index Value	0.0003	1.0	Less than Significant

Source: SCAQMD 2019.
Notes: CEQA = California Environmental Quality Act.
See Appendix A-2.

As shown in Table 3.3-11, project operation would result in a Residential Maximum Individual Cancer Risk of 1 in 1 million, which is below the significance threshold of 10 in 1 million. Project operation would result in a Residential Chronic Hazard Index of 0.0003, which is below the 1.0 significance threshold. The project operational TAC health risk impacts would be less than significant with mitigation.

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

Less-than-Significant Impact. The project would result in emissions, including criteria air pollutant and TACs; however, those are addressed under Sections 3.3(b) and 3.3(c). Accordingly, the evaluation of other emissions is focused on the potential for the project to generate odors. The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; the wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The project entails operation of a warehouse and would not create any new sources of odors during operation. Therefore, project operations would result in an odor impact that is less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The project entails operation of a warehouse and would not create any new sources of odors during operation. Therefore, project operations would result in an odor impact that is less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) 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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

The following analysis is based on a biological resources assessment conducted by Dudek biologist Jacob Rogers on April 4, 2023. This section summarizes the existing biological resources identified within the project site and a surrounding 100-foot buffer (study area). Existing conditions are discussed in terms of existing soils, vegetation communities, special-status species, jurisdictional waters and wetlands, and potential wildlife corridors. The construction requirements of the project were overlaid onto mapped vegetation communities to determine potential direct impacts on the 2.45-acre project site, as well as indirect impacts in the surrounding study area.

The study area is located in southwestern San Bernardino County. The existing land use within the study area consists of a single-family residence, surrounded by residential development to the north, vehicle storage and the San Bernardino International Airport to the south, vehicle storage to the east, and undeveloped land to the west. Surface elevation ranges between 1,160 and 1,170 feet above mean sea level and the site lacks significant topographic features, such as hills, valleys, or canyons. One drainage feature, City Creek Bypass Flood Control Channel ("City Creek Bypass"), occurs in the northwestern portion of the study area but outside the project site boundaries. City Creek Bypass is a blue-line feature that drains into the Santa Ana River to the southwest, which is considered a Relatively Permanent Water that drains to the Pacific Ocean, a Traditionally Navigable Water. The portion of City Creek Bypass within the study area is lined with rip-rap and contains an earthen bottom. City Creek Bypass is separated from the project site by a fence and concrete levee (Figure 10). Two soil types are mapped within the study area: Psamments, fluvents/frequently flooded soils and Tujunga gravelly loamy sand, 0% to 9% slopes (USDA 2023). Psamments soils are considered hydric soils in California and are mapped for the majority of the project site. However, these soils were mapped within the historic floodplain of City Creek Bypass and were present prior to the channelization of the Creek. Since the floodplain of City Creek Bypass has been contained to the channelized limits and the project site has been previously graded and soils compacted for the construction of the residence, the observed surface soils within the project site have been significantly altered from their natural state.

The biological reconnaissance survey recorded all plant and wildlife species and photographed representative vegetation communities. We used CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018), as well as the California Natural Community List (CDFW 2022a), and the Manual of California Vegetation (Sawyer et al. 2009), to map the vegetation communities and land uses in the study area. The classification systems focus on a quantified, hierarchical approach that accounts for both floristic factors (plant species) and physiognomic factors (community structure and form) as currently observed, rather than predicting climax or successional stages. During the biological reconnaissance observed vegetation communities and land covers were delineated to the alliance level. Prior to the survey, Dudek biologists conducted a comprehensive desktop review of literature, existing documentation, and geographic information system (GIS) data to assess the potential for special-status plant and wildlife species to occur within the study area. Each special-status species was assigned a rating of "not expected," "low," "moderate," or "high" potential to occur based on relative location to known occurrences, vegetation community, soil, and elevation. Where appropriate, modifications were made to the classification system, including the integration of the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986; Oberbauer et al. 2008), to account for the observed communities that did not conform to those listed in the references.

Dudek compiled a general inventory of plant and wildlife species detected by sight, calls, tracks, scat, or other field indicators, and determined the potential for special-status species to occur within the study area. During the survey 14 species of plants, 4 native (29%) and 10 non-native (71%), were recorded within the study area. No native or naturalized vegetation communities were observed as the entire study area is characterized as disturbed habitat and developed land, except for City Creek Bypass. A full list of plant species observed is provided in Appendix B.

Wildlife species diversity during the survey was low and is likely impacted by the amount of surrounding development, existing disturbances, and lack of native habitats within the study area.

A total of 7 wildlife species, consisting of six native species (86%) and one non-native species (14%), were recorded during the survey (Appendix B). Wildlife detected in the immediate vicinity of the study area included: Anna's Hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Cassin's kingbird (*Tyrannus vociferans*), common raven (*Corvus corax*), lesser goldfinch (*Spinus psaltria*), mourning dove (Zenaida macroura), and several feral cats (*Felis catus*), the only documented mammal.

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less-than-Significant with Mitigation Incorporated. The project site is highly disturbed and contains no natural or native habitat capable of supporting special-status plant or wildlife species known to occur in the region. The majority of the project site contains weedy or non-native vegetation and a single family residence, and surrounded by residential development, and commercial uses. Of the 51 special-status plant species listed in the California Natural Diversity Database (CDFW 2022b) and California Native Plant Society (CNPS 2022) databases as occurring in the vicinity of the study area, none are expected to occur within the study area due to a lack of suitable habitat (i.e., vegetation and soils). Additionally, all 66 special-status wildlife species that are documented in the region were determined to have no or low potential to occur within the study area based on an evaluation of elevation and vegetation communities present. The only protected wildlife species that may occur within the project site include common and migratory bird species protected by the Migratory Bird Treaty Act and California Fish and Game Code Section 3500. Bird species have the potential to nest within the ornamental landscaped trees on the project site, as well as on existing buildings and structures. Additionally, the project site is surrounded by development and the nearest naturalized area with native plant communities is approximately one mile from the project site, further reducing the potential for any special-status species from moving onto the project site. Therefore, the project will result in no impacts to special-status plants and wildlife.

The project site does provide suitable nesting habitat for a number of common and migratory bird species know to occur in the region. Specifically, bird species adapted to nesting in urban settings have the potential to nest within the native and non-native trees on site. Therefore, if project activities commence during the general avian nesting season of February through August, potential direct and indirect impacts may occur during vegetation removal and grading, which would be considered significant. Mitigation Measure (MM) BIO-1 would be implemented during the site preparation phase of the project to identify the presence of any nesting birds and set forth avoidance/minimization measures to reduce impacts to a less than significant level.

MM-BIO-1 Construction activities shall avoid the migratory bird nesting season (typically February 1 through August 31), to reduce any potential significant impact to birds that may be nesting on the study area. If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the project site and contiguous habitat within 500 feet of all impact areas must be conducted for protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified wildlife biologist within 72 hours prior to the start of construction in accordance with the Migratory Bird Treaty Act

(16 USC 703–712) and California Fish and Game Code, Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate no-disturbance buffer, which will be determined by the biologist based on the species' sensitivity to disturbance (typically up to 300 feet for passerines and up to 500 feet for raptors and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. The study area is in a highly disturbed residential lot that contains no natural or artificial drainages that could support riparian habitat. There are no riparian or other hydrophytic vegetation communities on the project site. However, City Creek Bypass occurs to the northwest of the project site, within the study area buffer. This portion of City Creek Bypass within the study area is earthen bottom with rip-rap lined slopes that does not contain any riparian or wetland vegetation. Therefore, there are no sensitive natural communities that occur within the project site that would be directly impacted by project construction. Additionally, due to the lack of riparian habitat within City Creek Bypass there will be no potential indirect impacts to riparian habitat or other sensitive natural communities.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-Significant Impact. The project site is in an entirely developed upland area that contains no natural or artificial drainages that could support state and federally protected water ways, or topographical depressions that could support state and federally protected wetlands. Additionally, no NWI-mapped 'blue line' wetlands are mapped on the project site. Although the historical floodplain of City Creek Bypass included portions of the project site, there is currently no direct on-site connectivity due to the previous channelization of City Creek Bypass. The proposed impact area for the project site is restricted to the existing developed areas and no direct impacts will occur to off-site drainages. Therefore, the project would have no direct impacts to any state or federally protected waters or wetlands.

However, due to proximity of the City Creek Bypass to the project site there is potential for indirect impacts to occur during construction related to erosion, runoff, and dust. However, incorporation of best management practices (BMPs) during construction as required the Stormwater Pollution Prevention Plan (SWPPP) to comply with the General Permit during all construction-related activities would reduce dust, toxins, and pollutants from entering into any adjacent waterways. Therefore, the project would have less than significant impacts to state and federally-protected waters and wetlands.

d) Would the project 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?

No Impact. The project site is surrounded by development and is isolated from larger undeveloped areas of open space. The project site has also been developed as a residential property and does not facilitate the movement of wildlife between two habitat blocks. Additionally, there are undeveloped parcels to the west that could allow for wintering stopover sites for migrating birds. Due to the existing development on site and history of disturbance, the project site does not function as a wildlife corridor or linkage.

However, City Creek Bypass occurs to the northwest of the project site that could function as a corridor for wildlife movement. The creek was dry at the time of the survey. However, the majority of the City Creek Bypass is diverted and concrete lined until it reaches the Santa Ana River which would likely reduce the potential for movement of any native fishes found in the watershed. Additionally, City Creek Bypass is separated from the project site by chain link fences that act as impediments for terrestrial wildlife entering the project site and utilizing the site as a wildlife corridor. Lastly, the project site does not function as a corridor between two larger patches of native habitat. Although there are natural habitat blocks within the greater project region (San Bernardino National Forest and the Santa Ana River), the project site is separated from these features by approximately 3 miles of urban development, preventing the possibility for wildlife occupying these natural areas to access the project site. Therefore, the proposed project would have no impacts to wildlife movement or migratory corridors.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less-than-Significant Impact. Applicable local ordinances protecting biological resources within the project site include the City of Highland Heritage Tree Protection Ordinance.

The City of Highland Heritage Tree Protection Ordinance

The City of Highland Heritage Trees Ordinance, Highland Municipal Code Chapter 8.36, provides means of regulating impacts and conservation of Heritage trees which is defined as “any live tree, shrub, or plant which meets at least on of the following criteria: all woody plants in excess of 15 feet in height and having a single trunk circumference of 24 inches DBH (diameter at breast height) or more; or multitrunked tree(s) having a total circumference of 30 inches DBH or more; or a stand of tree, the nature of which makes each dependent upon the others for survival; or any other tree as may be deemed historically or culturally significant by the community development director or designee because of size, condition, location, or aesthetic qualities.” An Arborist Report was prepared for the project and included an inventory and assessment of on-site trees, as well as replacement recommendations of off-site the loss of protected trees (Appendix C). The proposed site plan would require removal of up to 8 protected trees. Consistent with the City’s requirements, a tree removal permit would be required for the removal of these trees. Per the City’s Heritage tree preservation requirements, 16 drought tolerant trees must be planted to mitigate for the anticipated removal of 8 heritage trees. However, based on a review of the site plans, the site can accommodate up to 33 trees. Species composition and size of the planted trees is at the discretion of the community development director. With implementation of the proper permitting, direct and indirect impacts on protected trees under the City’s Heritage Trees Ordinance would be less than significant due to compliance with regulations.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project is not located within the limits of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; therefore, there would be no impact.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

The following analysis is based, in part, on the Built Environment Inventory and Evaluation Report prepared by Dudek in May 2023, included as Appendix D and the Archaeological Resources Assessment prepared by Dudek in May 2023, included as Appendix E.

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less-than-Significant Impact. As defined by the CEQA Guidelines (14 CCR 15000 et seq.), a "historical resource" is considered to be a resource that is listed in or eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR), has been identified as significant in a historical resource survey, or is listed on a local register of historical resources. Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (Public Resources Code Section 21084.1; 14 CCR 15064.5[b]). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of Public Resources Code Section 5024.1[q]), it is a historical resource and is presumed to be historically or culturally significant for the purposes of CEQA (Public Resources Code Section 21084.1; 14 CCR 15064.5[a]).

A review of historical aerial photographs indicates that the proposed project site was undeveloped until at least 1959. The single-family residence was constructed by 1966. By 2002, project site is shown to be consistent with the present site conditions.

A review of the California Historical Resources Information System (CHRIS) database records search for a 0.5-mile records search area around proposed project site identified 14 resources that are historic built environment resources; none of these resources overlap or are adjacent to the project site. No historic-period archaeological resources have been previously recorded within the project site or 0.5-mile records search area. It is important to note that the entirety of the project site has not been subject to any previous archaeological investigations. An archaeological pedestrian survey of the project site did not identify any archaeological resources within the project footprint that are historic in age.

A Built Environment Inventory and Evaluation Report was prepared for the subject property for potential built environment resources in May 2023 (Appendix D). The report includes the results of an intensive survey of the property by a cultural resources specialist; building development and archival research; development of an appropriate historic context for the project site; and recordation and evaluation of single-family residential property over 45 years old for historical significance and integrity in consideration of NRHP, CRHR, and City of Highland designation criteria and integrity requirements.

The Built Environment Inventory and Evaluation Report concluded the property at 26811 5th Street does not appear eligible for listing in the NRHP, CRHR, or as a City of Highland Cultural Resource due to a lack of important historical associations, lack of architectural merit, and lack of integrity, nor does it appear eligible as a contributor to an historic district. As such, the property is not considered a historical resource for the purposes of CEQA. The recommended California Historical Resource Status Code for this property is 6Z (found ineligible for the NRHP, CRHR, or local designation through survey evaluation).

Therefore, the project would not cause a substantial adverse change in the significance of a known historical resource pursuant to Section 15064.5. However, the potential for intact cultural deposits (archaeological in nature, as opposed to historic in nature) to exist within native soils (below between 1 and 2 feet below ground surface) to the depths of proposed ground disturbance is unknown. In the event that unanticipated cultural resources are encountered during project implementation, an assessment and evaluation of the resource would be conducted potentially resulting in the determination that the resource is historical in accordance with the definition outlined in Section 15064.5. As a result, the project has a potential to impact and thus cause a substantial adverse change in the significance of a yet unknown historical resource.

Thus, mitigation is required to address impacts related to the inadvertent discovery of yet unknown historical resources, as outlined in MM-CUL-1, MM-CUL-2, and MM-CUL-3. MM-CUL-1 requires that all project construction personnel participate in a Workers Environmental Awareness Program training for the proper identification and treatment of inadvertent discoveries. MM-CUL-2 requires the retention of an on-call qualified archaeologist to address inadvertent discoveries. MM-CUL-3 requires construction work occurring within 100 feet of a cultural resource discovery be immediately halted until the qualified archaeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archaeology, can assess and evaluate the discovery pursuant to CEQA. Additionally, MM-CUL-3 requires the inadvertent discovery clause be included on all construction plans. With implementation of MM-CUL-1, MM-CUL-2, and MM-CUL-3, significant impacts to historical resources would be reduced to less than significant with mitigation incorporated.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less-than-Significant Impact with Mitigation Incorporated. A CHRIS database records search, Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, background research, including a review of a geotechnical report, and an archaeological pedestrian survey were conducted as part of an Archaeological Resources Assessment that was prepared for the project (Appendix E).

The SLF record is maintained at a Public Land Survey System Section level meaning the negative or positive result is respective of a general area covering approximately one-square mile (640 acres) rather than the exact proposed project site. Therefore, as part of the process of identifying cultural resources within or near the proposed project, Dudek referenced the results of an SLF search that was previously completed for another project within 0.5 miles northwest of the present project site (completed April 14, 2021). The NAHC's SLF search result was positive, however, as previously stated, the SLF record is maintained at a Public Land Survey System Section level, which indicates a recorded sacred site could be anywhere within this 1-square-mile (640-acre) area and therefore, does not necessarily equate to the existence of resources within the specific area occupied by the proposed project site. A search of the CHRIS database the records search did not identify any previously recorded historic-period or prehistoric archeological resources within or immediately adjacent to the proposed project site. No record of previously recorded historic-period or prehistoric archaeological resources are on file with the SCCIC as being present within proposed project site.

A review of a geotechnical report prepared for the proposed project site determined that fills soils were encountered from surface to between 1 and 2 feet below existing ground surface (bgs) within all ten exploratory backhoe trenching locations. The presence of the fill soil is an indication that any potential cultural material from surface to between 1 to 2 feet bgs, has been previously displaced from the primary depositional location, buried, or destroyed. Additionally, the presence of fill soils demonstrates that the native soils upon and within which cultural deposits would exist in situ was not observed during the survey. No cultural materials were observed within the proposed project site; however, due to the presence of fill soils, observation of intact native soils was not possible.

A review of aerial photographs for all available years indicates that in general, the project site is depicted as vacant and undeveloped (i.e., no buildings or structures observed) as early as 1901 with City Creek Bypass and associated wash/creek bed intersecting the western portion of the proposed project site. In 1966, the western portion of the proposed project site is developed with two structures, consistent with the present-day layout of the residential building/structure.

An intensive-level archaeological survey of the proposed project site was conducted May 18, 2023. The survey was conducted employing parallel transects, spaced no greater than 10 meters apart (approximately 32 feet), where feasible and safe to do so. In areas of limited ground surface visibility due to the presence of road base, gravel, dense vegetation, or extant buildings and structures, formal transects were not utilized. Instead, a mixed approach (opportunistic survey) and reconnaissance survey (visual inspection) were utilized, selectively examining areas of exposed ground surfaces, where possible. Ground disturbances such as rodent burrows and cut banks, were also visually inspected for exposed subsurface materials. A review of a geotechnical report prepared for the proposed project site (Appendix D) stated that fill soils were encountered from surface to between 1 and 2 feet below existing

ground surface at all ten trenching locations placed at accessible locations throughout the proposed project site. Native soils were encountered underlying the fill soils and extend to the maximum depths reached during the geotechnical testing. The presence of fill soils demonstrates that the native soils upon and within which cultural deposits would exist in situ was not observed during the survey. No cultural materials were observed within the proposed project site; however, due to the presence of fill soils, observation of intact native soils was not possible.

In consideration of all these factors, the potential to encounter intact deposits containing archaeological resources within soils from the current grade and between 1 and 2 feet below ground surface is unlikely. However, the potential for intact cultural deposits to exist within native soils (below between 1 and 2 feet below ground surface) to the depths of assumed ground disturbance is unknown. For these reasons, the proposed project site should be treated as potentially sensitive for archaeological resources. In the event that unanticipated archaeological resources are encountered during project implementation, impacts to these resources would be potentially significant.

Thus, mitigation is required to address impacts related to the inadvertent discovery of archaeological resources during construction, as outlined in MM-CUL-1, MM-CUL-2, and MM-CUL-3. MM-CUL-1 requires that all project construction personnel participate in a Workers Environmental Awareness Program training for the proper identification and treatment of inadvertent discoveries. MM-CUL-2 requires the retention of an on-call qualified archaeologist to address inadvertent discoveries. MM-CUL-3 requires construction work occurring within 100 feet of a cultural resource discovery be immediately halted until the qualified archaeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archaeology, can assess and evaluate the discovery pursuant to CEQA. Additionally, MM-CUL-3 requires the inadvertent discovery clause be included on all construction plans. With implementation of MM-CUL-1, MM-CUL-2, and MM-CUL-3, potentially significant impacts to unknown archaeological resources would be reduced to less than significant with mitigation incorporated.

MM-CUL-1 Workers Environmental Awareness Program. Prior to the start of construction activities, all construction personnel and monitors shall be trained regarding identification and treatment protocol for inadvertent discoveries of cultural resources (archaeological and tribal) and human remains. A basic presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries of cultural resources and human remains. The purpose of the Workers Environmental Awareness Program (WEAP) training is to provide specific details on the kinds of materials that may be identified during ground disturbing activities and explain the importance of and legal basis for the protection of human remains and significant cultural resources. Each worker shall also be trained in the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground disturbing activities. These procedures include but are not limited to work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitoring staff.

MM-CUL-2 Retention of an On-Call Qualified Archaeologist. A qualified archaeologist shall be retained and on-call to respond and address any inadvertent discoveries identified project implementation. Additionally, in consideration of the potential to encounter intact cultural deposits beneath fill soils, the qualified archaeologist shall survey the proposed project site once fill soils have been removed to ensure no cultural deposits underly the fill layer.

If is determined, based on the aforementioned survey, that cultural resources are present or may be present and may be impacted during project construction, monitoring may be warranted. Additionally, any identified cultural resources shall be assessed and evaluated pursuant to CEQA. If it is determined that monitoring is warranted, a qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards, shall oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material. The archaeological monitor will be responsible for maintaining daily monitoring logs.

MM-CUL-3 Inadvertent Discovery Clause**.** In the event that potential archaeological resources (sites, features, or artifacts) are exposed during ground disturbance, all construction work occurring within 60 feet of the find shall immediately stop, and the qualified archaeologist that has been retained on call must be notified immediately to assess the significance of the find and determine whether additional study is warranted. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or historic-era finds of or potentially of Native American origin. The Tribe shall be provided relevant information regarding the findings of the archaeological assessment as well recommendations regarding further study and treatment, if necessary. Depending upon the significance of the find under the California Environmental Quality Act (CEQA), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work (e.g., preparation of an archaeological treatment plan, testing, data recovery, or monitoring) may be warranted if the resource cannot be feasibly avoided. If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan (Plan) to include a research design, if data recovery is determined necessary. A draft of the Plan shall be provided to YSMN for review and comment, prior to finalization of the Plan as detailed within TCR-1. If monitoring is warranted, it shall be conducted for the remainder of the project, and implement the Plan accordingly. Additionally, an archaeological monitoring report shall be prepared within 60 days following completion of ground disturbance and submitted to the City of Highland for review. This report shall document compliance with approved mitigation, document the monitoring efforts and any discoveries, and include an appendix with daily monitoring logs. The final report shall be submitted to the City of Highland, Applicant, YSMN, and the South Central Coastal Information Center.

If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the county coroner has determined the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be, Native American, he or she shall follow all required protocols according to California Public Resources Code, Section 5097.98.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less-than-Significant Impact. No prehistoric or historic period burials were identified within the proposed project site as a result of the CHRIS records search or pedestrian survey. Although the NAHC's SLF search result was positive, it is important to note that the results of the SLF provided by the NAHC relate to the general regional area within and surrounding the proposed project site and don't necessarily equate to the existence of resources or human remains within the specific proposed project site. In the event that human remains are inadvertently encountered during ground disturbing activities, they shall be treated consistent with state and local regulations including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the California Code of Regulations Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC that shall notify those persons believed to be the most likely descendant. The most likely descendant shall determine, in consultation with the property owner, the disposition of the human remains. Compliance with these regulations would ensure that impacts to human remains resulting from the proposed project would be less than significant.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-Significant Impact. The electricity and natural gas used for construction of the proposed project would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption. Although the project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in vehicle miles traveled (VMT) over time.

Construction

Electricity

Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers) would be provided by Southern California Edison. The electricity used for such activities would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption.

Natural Gas

Natural gas is not anticipated to be required during construction of the project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the Petroleum subsection. Any minor amounts of natural gas that may be consumed as a result of project construction would be substantially less than that required for project operation and would have a negligible contribution to the project's overall energy consumption.

Petroleum

Heavy-duty construction equipment associated with construction activities would rely on diesel fuel. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered passenger vehicles.

Heavy-duty construction equipment of various types would be used during each phase of project construction. Appendix A-1 lists the assumed equipment usage for each phase of construction.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO_2) emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Construction is estimated to occur in 2024 and 2025 based on the construction phasing schedule. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2021). The estimated diesel fuel usage from construction is shown in Table 3.6-1.

Table 3.6-1. Total Proposed Project Construction Petroleum Demand

Scenario	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	Gallons			
Project Construction	21,712	483	5,897	7,634
Total Petroleum Consumed for Project Construction				35,726

Source: Appendix A-1

In summary, construction of the project is anticipated to consume 7,634 gallons of gasoline and 28,092 gallons of diesel over the course of 13 months. The project will be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment

greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements. The project is also located in an urban area and worker, vendor, and haul truck trip lengths would be shorter compared to a suburban project location, resulting in less energy use. Therefore, impacts to energy resources during construction would be less than significant.

Operation

Electricity

The operation of the project would require electricity for multiple purposes, including cooling, lighting, appliances, and powering various equipment, such as electric forklifts. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage. Electricity consumption associated with project operation is based on the CalEEMod outputs for water, wastewater, and electric forklifts presented in Appendix A-1.

CalEEMod default values for energy consumption for each land use were applied for the project analysis. The energy use from non-residential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the heating, ventilation, and air conditioning [HVAC] system; water heating system; and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous “plug-in” uses).

Title 24 of the California Code of Regulations serves to enhance and regulate California’s building standards. The most recent amendments to Title 24, Part 6, referred to as the 2022 standards, became effective on January 1, 2023. According to these estimations, the project would consume approximately 270,533 kilowatt-hours per year during operation (Appendix A-1).

Natural Gas

The operation would require natural gas for various purposes, including water heating and natural gas appliances and natural gas forklifts. Natural gas consumption associated with operation is based on the CalEEMod outputs in Appendix A-1.

CalEEMod default values for energy consumption for each land use were applied for the project analysis. The energy use from non-residential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous “plug-in” uses).

Title 24 of the California Code of Regulations serves to enhance and regulate California's building standards. The most recent amendments to Title 24, Part 6, referred to as the 2023 standards, became effective on January 1, 2023. According to these estimations, the project would consume approximately 1,020,228 thousand British thermal units per year.

Petroleum

During operations, the majority of fuel consumption resulting from the project would involve the use of forklifts and motor vehicles traveling to and from the project site.

Petroleum fuel consumption associated with motor vehicles traveling to and from the project site is a function of the VMT as a result of project operation. As shown in Appendix A-1 and as discussed in Section 3.3 and Section 3.8, the annual VMT attributable to the project is expected to be 409,141miles for passenger vehicles and 368,448 miles for trucks. Similar to the construction worker and vendor trips, fuel consumption from worker and truck trips are estimated by converting the total CO_2 emissions from operation of the project to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Mobile source emissions were estimated using EMFAC2021. Calculations for annual mobile source fuel consumption are provided in Table 3.6-2.

Table 3.6-2. Operational Annual Mobile Source Petroleum Demand

Fuel	Source	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Gasoline	Vehicles	127	8.78	57,973
Diesel	Vehicles	509	10.21	49,853
			Total	**107,826**

Sources: Trips and vehicle CO_2 (Appendix A-1); kg/CO_2/Gallon (The Climate Registry 2020).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram

As shown in Table 3.6-2, total petroleum consumption for the project annually is estimated to be 107,826 gallons.[12]

Summary

In summary, although natural gas and electricity usage would increase due to the implementation of the project, the project would be subject to the State Building Energy Efficiency Standards. Although the project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. Therefore, impacts to energy resources during operation would be less than significant.

Over the lifetime of the project, the fuel efficiency of the vehicles being used by the visitors and employees of the project is expected to increase. As such, the amount of gasoline consumed as a result of vehicular trips to and from the project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted a new approach to passenger vehicles by combining the control of smog-causing pollutants and GHG

[12] For context, California as a whole is expected to consume approximately 18.0 billion gallons of petroleum per year by 2023 (CARB 2021). Countywide total petroleum use by vehicles is expected to be 1,114 million gallons per year by 2024 (CARB 2021).

emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emission vehicles in California (CARB 2017a). Additionally, in response to Senate Bill (SB) 375, CARB has adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by the year 2020 and 13% by the year 2035 for light-duty passenger vehicles in the SCAG planning area. This reduction would occur by reducing VMT through the integration of land use planning and transportation. As such, operation of the project is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

The project would create additional electricity and natural gas demand by adding warehouse facilities. New facilities associated with the proposed project would be subject to the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of non-residential buildings and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The project will meet applicable Title 24 requirements, other renewable energy systems including wind turbine generation, geothermal generation, energy storage and other renewable energy generation features are not considered technically or economically feasible and or demonstrated for a similar project. Additionally, site constraints include limited land availability and incompatibility with land use for large scale power generation facilities as well as unknown interconnection feasibility and compatibility with utility provider systems. For these reasons other onsite renewable energy systems are not considered feasible for the proposed project.

In summary, implementation of the project would increase the demand for electricity and natural gas at the project site and petroleum consumption in the region during construction and operation. However, as the project would be consistent with current regulations and policies, the project would not be wasteful, inefficient, and would not result in unnecessary energy resource consumption. The project's energy consumption demands during construction and operation would conform to the State's Title 24 standards such that the project would not be expected to wastefully use gas and electricity. Since the proposed project would comply with Title 24 conservation standards, the proposed project would not directly require the construction of new energy generation or supply facilities or result in wasteful, inefficient, or unnecessary consumption of energy. Moreover, vehicle usage associated with the project would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. Therefore, impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-than-Significant Impact**.** The project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR, Part 6). Part 6 of Title 24 establishes energy efficiency standards for non-residential buildings constructed in California to reduce energy demand and consumption. As such, the project would comply with the California code requirements for energy efficiency.

Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the project under the California Green Building Standards, also known as CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and non-residential additions and alterations. On this basis, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, impacts would be less than significant.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Alquist-Priolo Zones Special Studies Act defines active faults as those that have experienced surface displacement or movement during the last 11,000 years. As shown in Figure 6-2 of the General Plan, the City of Highland is traversed by the San Andreas Fault System (City of Highland 2006). The Alquist-Priolo Earthquake Fault Zone, as identified in the General Plan, is located approximately 3.7 miles east of the project site (City of Highland 2006). The proposed development lies outside of any Alquist Priolo Special Studies Zone and the potential for damage due to direct fault rupture is considered unlikely (Appendix F, Geotechnical Investigation). Additionally, based on a review of the California Department of Conservation regulatory maps, the project site is not located in a designated Fault Hazard Zone (DOC 2021). Therefore, no impacts associated with fault rupture would occur.

ii) Strong seismic ground shaking?

Less-than-Significant Impact. Similar to other areas located in the seismically active Southern California region, the City is susceptible to strong ground shaking during an earthquake. However, as previously addressed in Section 3.7(a)(i), the project site is located approximately 3.7 miles east of the San Andreas Fault Zone, which is capable of producing an 8.3 Magnitude earthquake (City of Highland 2006). Pursuant to Title 15, Buildings and Construction, of the Highland Municipal Code, the project would incorporate the design recommendations included in its geotechnical report, which will be subject to review and approval by City staff prior to issuance of a grading permit. The project's geotechnical report provides specific design recommendations to ensure the structural integrity of the project in the event that seismic ground shaking is experienced at the project site. These recommendations include performing remedial grading, over-excavating existing soils, and recompacting these soils with compacted fill, among other technical design recommendations (Appendix F). Additionally, the project's structures would be designed consistent with the most recent version of the California Building Code, which includes universal standards relating to seismic load requirements. With implementation of the recommendations of the project's geotechnical report, impacts associated with strong seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. Liquefaction occurs when partially saturated soil loses its effective stress and enters a liquid state, which can result in the soil's inability to support structures above. Liquefaction can be induced by ground-shaking events and is dependent on soil saturation conditions. As shown in Figure 6-3 of the General Plan, the project site is not within a High Liquefaction Susceptibility Area (City of Highland 2006), and according to the project's Geotechnical Report, liquefaction is not a concern for the project site (Appendix F). Therefore, impacts associated with seismic-related ground failure, including liquefaction, would be less than significant.

iv) Landslides?

No Impact. The project site is relatively flat and is not within an area susceptible to landslides as shown in General Plan Figure 6-3 (City of Highland 2006). Therefore, no impact associated with landslides would occur on the proposed project site.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Short-Term Construction Impacts

Less-than-Significant Impact. Ground surfaces that would be temporarily exposed during construction could result in erosion or loss of soil during storm events. Construction projects that involve the disturbance of 1 or more acres of soil, including clearing, grading, and disturbances to the ground such as stockpiling or excavation, are required to obtain coverage under the State Water Resources Control Board General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit). The Construction General Permit requires the development and implementation of a SWPPP (SWRCB 2023a). Implementation of a Construction General Permit, including preparation of a SWPPP and installation of BMPs, would reduce the potential for both stormwater runoff and soil erosion impacts. Therefore, short-term construction impacts associated with soil erosion would be less than significant.

Long-Term Operational Impacts

Less-than-Significant Impact. Following construction of the project, ground surfaces would be covered by the proposed warehouse building or otherwise stabilized with landscaping and paving. The stormwater generated on site, along with any sediments contained within the stormwater, will be directed into an on-site corrugated metal pipe infiltration system to be treated on site. Therefore, the potential for substantial soil erosion or the loss of topsoil would be less than significant.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less-than-Significant Impact. As previously discussed, the potential for the project to result in or be affected by landslides and liquefaction is low, and these issues are not anticipated at the project site. The project would be designed consistent with the specific design recommendations of the project's geotechnical report, which provides recommendations to perform remedial grading, over-excavate existing soils, and recompact these soils with compacted fill, among other technical design recommendations (Appendix F). Implementation of these recommendations would address these potentially hazardous conditions and ensure structural integrity in the event that seismic-related issues are experienced at the project site. With implementation of the recommendations of the project's geotechnical report, impacts would be less than significant.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less-than-Significant Impact. Expansive soils are characterized by their potential shrink/swell behavior. Shrink/swell is the change in volume (expansion and contraction) that occurs in certain fine-grained clay

sediments from the cycle of wetting and drying. Much of the damage to building foundations, roads, and other structures can be caused by the swelling and shrinking of soils as a result of wetting and drying. The on-site soils at the project site are very low (Expansion Index = 0-20) in expansion potential (Appendix F). Further, compliance with California Building Code requirements would reduce the potential risk to people and structures due to unstable and expansive soils. Therefore, impacts associated with expansive soils would be less than significant.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The proposed project would connect directly to the East Valley Water District sewer system and would not require septic tanks or any other alternative wastewater disposal system. Therefore, no impacts associated with the ability of soils to support septic tanks would occur.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-than-Significant with Mitigation Incorporated. The project site lies within the northernmost Peninsular Ranges Geomorphic Province, which extends from the tip of the Baja California Peninsula to the Transverse Ranges (the San Gabriel and San Bernardino Mountains) and includes the Los Angeles Basin, offshore islands (Santa Catalina, Santa Barbara, San Nicholas, and San Clemente), and continental shelf. The eastern boundary is the Colorado Desert Geomorphic Province (California Geological Survey 2002; Morton and Miller 2006). The ancestral Peninsular Ranges were formed by uplift of plutonic igneous rock resulting from the subduction of the Farallon Plate underneath the North American Plate during the latter portion of the Mesozoic era approximately 90 to 125 million years ago (Abbott 1999).

According to surficial geological mapping by Dibblee and Minch (2004) at a 1:24,000 scale, the project site is underlain by Holocene (<11,700 years ago; Cohen et al. [2023]) alluvial deposits (map unit Qa). In general, these deposits consist of unconsolidated sand and clay deposited in valley areas. Based on the geotechnical report (Appendix F) the top 1 to 2 feet of sediments at the project area are composed of artificial fill, with sediments deeper than 2 feet to the greatest sampled depth of 18.5 feet comprised of natural, undisturbed alluvial sediments.

Dudek requested a paleontological records search from the Natural History Museum of Los Angeles County (NHMLA) on April 26, 2023, and the results were received on May 7, 2023. The NHMLA reported no fossil localities from within the project area, but there are several localities recorded from nearby in similar sedimentary units that can be found either at surface or at depth.

The Holocene young alluvial fan deposits have not been shown to produce any fossil resources due to their young age and therefore have low paleontological sensitivity but transition to high paleontological sensitivity at depth. The NHMLA (2023) did not report any localities from within the project site but did report four localities (LACM VP [Los Angeles County Museum Vertebrate Paleontology] 4619, 7811, 1207, and 4540) that produced the Pleistocene fauna outside the project site. The localities and fauna are as follows: LACM VP 4619 produced a mammoth (*Mammuthus*) from approximately 100 feet below the ground surface (bgs) in Eastvale; LACM VP 7811 produced a whip snake (*Masticophis*) from 9 to 11 feet bgs in Chino Valley; LACM VP 1207 produced a member of the bovid family (Bovidae) from an unknown depth bgs in Corona; and LACM VP 4540 yielded a member of the horse family (Equidae) also from an unknown depth bgs in the

San Jacinto Valley (NHMLA 2023). These same Pleistocene sediments may underlie the surficial sediments within the project area and have a high paleontological sensitivity.

With regards to paleontological resources, Holocene alluvial deposits have low sensitivity on the surface that increases to high with depth. As such, there is a possibility of encountering previously undiscovered paleontological resources at subsurface levels during ground-disturbing activities associated with the project. Implementation of mitigation measure **MM-GEO-1** would ensure that potential impacts to paleontological resources during construction activities are reduced to below a level of significance. Impacts would therefore be less than significant with mitigation incorporated.

MM-GEO-1 Prior to commencement of any grading activity on-site, the applicant shall retain a qualified paleontologist as defined by the Society of Vertebrate Paleontology (SVP) (2010) guidelines, subject to the review and approval of the City's Building Official, or designee. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project. The PRIMP shall be consistent with the SVP (2010) guidelines and should outline requirements for preconstruction meeting attendance and worker environmental awareness training; where monitoring is required within the project site below a depth of 10 feet below the ground surface based on construction plans and/or geotechnical reports; procedures for adequate paleontological monitoring and discoveries treatment; and paleontological methods (including sediment sampling for microvertebrate fossils), reporting, and collections management. The PRIMP shall also include a statement that any fossil lab or curation costs (if necessary due to fossil recovery) are the responsibility of the project proponent. The qualified paleontologist shall attend the preconstruction meeting and be on-site during all rough grading and/or trenching for utilities to determine the amount of paleontological monitoring necessary based on subsurface conditions. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. Upon completion of the paleontological monitoring program, the qualified paleontologist shall prepare a final monitoring report documenting the results of the mitigation program. This report should include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. Climate change refers to any significant change in measures of climate (e.g., temperature, precipitation, or wind patterns) lasting for an extended period of time (i.e., decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and buildup of heat in the atmosphere near the Earth's surface (the troposphere). The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (see also CEQA Guidelines Section 15364.5).[13] The three GHGs evaluated herein are CO_2, CH_4, and N_2O because these gases would be emitted during project construction and operation.

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO_2 equivalent (CO_2e). Consistent with CalEEMod Version 2020.4.0, this GHG emissions analysis assumed the GWP for CH_4 is 25 (i.e., emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3, the project is located within SCAQMD jurisdictional boundaries. In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented

[13] Climate-forcing substances include greenhouse gases (GHGs) and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505; impacts associated with other climate-forcing substances are not evaluated herein.

in its Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008b). This document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO_2e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (SCAQMD 2008b). The 10,000 MT CO_2e per-year threshold, which was derived from GHG reduction targets established in Executive Order S-3-05, was based on the conclusion that the threshold was consistent with achieving an emissions capture rate of 90% of all new or modified stationary source projects.

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land-use development projects. The most recent proposal issued by SCAQMD, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1. Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2. Consider whether or not the project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3. Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e per year), commercial projects (1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Construction Greenhouse Gas Emissions

Construction of the project would result in GHG emissions, which are primarily associated with the use of off-road construction equipment, on-road haul and vendor trucks, and worker vehicles. The SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008b) recommends that "construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies." Thus, the total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions for comparison with the GHG significance threshold of 3,000 MT CO_2e per year. The determination of significance, therefore, is addressed in the operational emissions discussion following the estimated construction emissions.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.3. Construction of the project is anticipated to commence in January 2024, lasting a total of

13 months and reaching completion in January 2025. On-site sources of GHG emissions include off-road equipment and off-site sources include haul trucks, vendor trucks, and worker vehicles. Table 3.8-1 presents construction GHG emissions for the project from on-site and off-site emission sources.

Table 3.8-1. Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2024	347	0.02	0.01	352
2025	1.72	<0.01	<0.01	1.73
			Total	**354**
			Amortized Emissions (over 30 years)	**29.50**

Source: Appendix A-1.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

As shown in Table 3.8-1, the estimated total GHG emissions during construction of the project would be approximately 354 MT CO_2e. Estimated project-generated construction emissions amortized over 30 years would be approximately 30 MT CO_2e per year. As with project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis in the following text.

Operational Greenhouse Gas Emissions

CalEEMod Version 2022.1 was used to estimate potential project-generated and exiting land use operational GHG emissions from area sources (landscape maintenance), natural gas combustion, electrical generation, water supply and wastewater treatment, solid waste, and off-road equipment (forklifts). As with the air quality analysis, mobile source GHG emissions were estimated using CalEEMod based on EMFAC2021 emission factors. Emissions from each category—area sources, energy sources, mobile sources, solid waste, water supply and wastewater treatment, and off-road equipment—are discussed in the following text with respect to the project. For additional details, see Section 3.3 for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (natural gas), and mobile sources. Operational year 2025 was assumed to be the first full year of operation following completion of construction.

Area Sources

CalEEMod was used to estimate GHG emissions from the project's area sources, including operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. It was assumed that 100% of the landscaping equipment would be gasoline powered. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only, and low to no GHG emissions.

Energy Sources

The estimation of operational energy emissions was based on CalEEMod land use defaults and square footage of the project's land uses. For non-residential buildings, CalEEMod energy intensity value (electricity or natural gas usage per square foot per year) assumptions were based on the California Commercial End-Use Survey database. Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO_2 and other GHGs.

The current Title 24, Part 6 standards, referred to as the 2022 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2023. The current version of CalEEMod assumes compliance with the 2019 Title 24 Building Energy Efficiency Standards (CAPCOA 2021).

The CalEEMod default energy intensity factor (CO_2, CH_4, and N_2O mass emissions per kilowatt-hour) were utilized for Southern California Edison. SB X1 2 established a target of 33% from renewable energy sources for all electricity providers in California by December 31, 2020, and SB 100 calls for further development of renewable energy, with a target of 44% by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030. As such, GHG emissions associated with project electricity demand would continue to decrease over time.

Mobile Sources

All details for criteria air pollutants discussed in Section 3.3 are also applicable for the estimation of operational mobile source GHG emissions. It was assumed that the warehouse would operate 7 days per week; therefore, 365 days of vehicle emissions were assumed. Regulatory measures related to mobile sources include Assembly Bill (AB) 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the National Highway Traffic Safety Administration and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the project's motor vehicles. The effectiveness of fuel economy improvements was evaluated to the extent it was captured in the EMFAC2021 emission factors for motor vehicles in 2025.

Solid Waste

The project would generate solid waste and therefore, would result in CO_2e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste.

Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater

treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod default values.

Off-Road Equipment

The SCAQMD published a summary of operational survey results from 34 operating high-cube warehouses (SCAQMD 2014). The SCAQMD survey reported an average of 0.12 forklifts/pallet jacks per 1,000 square feet of building area, which was applied to the project. Note that this estimate is for total forklifts and pallet jacks. Pallet jacks are small as they are primarily used to lift small loads in tight quarters (and are electric or manual); therefore, assuming all pieces of equipment are forklifts is conservative. For the project, a total of seven forklifts were assumed. All seven forklifts are assumed to operate 8 hours per day and 7 days per week at the project site, see Appendix A-1 for details.

The estimated operational (year 2025) net GHG emissions (project-generated GHG emissions minus existing land use GHG emissions) from area sources, energy usage, motor vehicles, solid waste generation, water usage and wastewater generation, and off-road equipment are shown in Table 3.8-2.

Table 3.8-2. Estimated Annual Operational Greenhouse Gas Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	metric tons per year			
Proposed Project				
Mobile	611	0.04	0.08	636
Area	1.09	<0.01	<0.01	1.09
Energy	300	0.02	<0.01	301
Water	26.9	0.41	0.01	39.9
Water supply and wastewater	4.50	0.45	0.00	15.7
			Project Total	**994**
			Amortized Construction Emissions	*29.5*
			Total Emissions (Proposed Project + Amortized Construction Total)	**1,023.50**

Source: Appendix A-1.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
[1] Includes **MM-AQ-2**, which requires the use of electric powered forklifts during opreation of the project. To provide a conservative estiamte of emissions, Electric forklifts energy demand is calculated in the energy source categorey.

As shown in Table 3.8-2, estimated annual generated GHG emissions would be approximately 994 MT CO_2e per year as a result of project operation. Estimated annual operational emissions in 2025 with amortized project construction emissions of approximately 30 MT CO_2e per year would be approximately 1,024 MT CO_2e per year. Annual operational GHG emissions with amortized construction emissions would not exceed the SCAQMD recommended threshold of 3,000 MT CO_2e per year.

b) Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potential to Conflict with State Reduction Targets and CARB's Scoping Plan

Less-than-Significant Impact. The California State Legislature passed the Global Warming Solutions Act of 2006 (AB 32) to provide initial direction to limit California's GHG emissions to 1990 levels by 2020 and initiate the state's long-range climate objectives. Since the passage of AB 32, the State has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. For the project, the relevant GHG emissions reduction targets include those established by SB 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 requires the state achieve net zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter.

As defined by AB 32, CARB is required to develop The Scoping Plan, which provides the framework for actions to achieve the State's GHG emission targets. The Scoping Plan is required to be updated every five years and requires CARB and other state agencies to adopt regulations and initiatives that will reduce GHG emissions statewide. As discussed in Section 4.2, the first Scoping Plan was adopted in 2008, and was updated in 2014, 2017, and most recently in 2022. Although the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used as the sole basis for project-level evaluations, it is the official framework for the measures and regulations that will be implemented to reduce California's GHG emissions in alignment with the adopted targets. Therefore, a project would be found to not conflict with the statutes if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

CARB's 2017 Climate Change Scoping Plan update was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017b), and the most recent CARB 2022 Scoping Plan for Achieving Carbon Neutrality update outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses progress is making toward the 2030 SB 32 target (CARB 2022). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 and 2022 Scoping Plan updates that outline the strategy to achieve those targets, are the most applicable to the project.

The 2017 Scoping Plan included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), increase stringency of the LCFS, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increase stringency of SB 375 targets. The 2022 Scoping Plan builds upon and accelerates programs currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022). Many of the measures and programs included in the Scoping Plan would result in the reduction of project-related GHG emissions with no action required at the project-level, including GHG emission reductions through increased energy efficiency and renewable energy production (SB 350), reduction in carbon intensity of transportation fuels (LCFS), and the accelerated efficiency and electrification of the statewide vehicle fleet (Mobile Source Strategy).

Regarding VMT reduction efforts, a Supplemental Vehicle Miles Traveled Analysis (Attachment D of the Scoping Plan) was prepared based on the Total VMT per Service Population (employees) for the Antelope Valley Region to evaluate potential VMT impacts at the regional level. As detailed in Attachment D of the Scoping Plan, there would be no net increase in VMT per Service Population with the project and there would be a slight decrease in the total regional VMT (including truck trips) with the project, since the project would fulfill a need for industrial warehouse uses and employment opportunities where one does not currently exist, thus eliminating the need to travel farther distances for such services and employment opportunities. As such, the project would support the 2017 and 2022 Scoping Plan Update's goals by resulting in a VMT reduction in the region.

Table 3.8-3 highlights measures that have been developed under the 2017 Scoping Plan and presents the project's consistency with the applicable 2017 Scoping Plan measures.

Table 3.8-3. Project Potential to Conflict with the 2017 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
Transportation Sector	
Advanced Clean Cars	***No conflict.*** The project's employees and customers would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low Carbon Fuel Standard	***No conflict.*** Motor vehicles driven by the project's employees and customers would use compliant fuels.
Last-Mile Delivery	***No conflict.*** The location of the project would support this measure with locating distribution closer to the end user. There would be a slight decrease in the total regional VMT with the project, since the project would fulfill a need for industrial warehouse uses and employment opportunities where one does not currently exist, thus eliminating the need to travel farther distances for such services and employment opportunities.
Reduction in VMT	***No Conflict.*** The project would not prevent CARB from implementing this measure. As discussed above, there would be a slight decrease in the total regional VMT with the project.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	***No conflict.*** The project would require zero emission cargo handling equipment (MM-AQ-2) and would not include cold storage.

Table 3.8-3. Project Potential to Conflict with the 2017 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
Heavy-Duty Vehicle GHG Emission Reduction ▪ Tractor-Trailer GHG Regulation ▪ Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	***No conflict.*** Heavy duty trucks accessing the project site would be subject to this measure.
Medium and Heavy-Duty GHG Phase 2	***No conflict.*** Heavy duty trucks accessing the project site would be subject to this measure.
Electricity and Natural Gas Sector	
Energy Efficiency Measures (Electricity)	***No conflict.*** The project would be constructed in accordance with CALGreen and Title 24 building standards.
Energy Efficiency (Natural Gas)	***No conflict.*** The project would be constructed in accordance with CALGreen and Title 24 building standards.
Renewables Portfolio Standard (33% by 2020)	***No conflict.*** The project would procure electricity from Southern California Edison (SCE), which is in compliance with this measure.
Renewables Portfolio Standard (50% by 2050)	***No conflict.*** The project would procure electricity from SCE, which is on trajectory to be compliance with this measure.
Water Sector	
Water Use Efficiency	***No conflict.*** The project would be constructed in accordance with CALGreen and Title 24 building standards.
Recycling and Waste Management Sector	
Mandatory Commercial Recycling	***No conflict.*** The project would include recycling and solid waste diversion.

Source: CARB 2014, 2017a.
Notes: GHG = greenhouse gas; CARB = California Air Resources Board; VMT = vehicle miles traveled; SB = Senate Bill; N/A = not applicable.

Table 3.8-4 highlights the measures from the 2022 Scoping Plan that are relevant to the project.

Table 3.8-4. Project Potential to Conflict with 2022 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
GHG Emissions Reductions Relative to the SB 32 Target	
40% below 1990 levels by 2030	***No conflict.*** Although the SB 32 GHG emissions reduction target is not an Action that is analyzed independently, it is included in Table 2-1 of the 2022 Scoping Plan for reference. The project would not obstruct or interfere with agency efforts to meet the SB 32 reduction goal.

Table 3.8-4. Project Potential to Conflict with 2022 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
Smart Growth / VMT Sector	
VMT per capita reduced 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045	***No conflict.*** The project would not obstruct or interfere with agency efforts to meet this regional VMT reduction goal, including through implementation of SB 375. As detailed below, the project would be consistent with the SCAG 2020–2045 RTP/SCS, which is the regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light trucks in the Southern California Region pursuant to SB 375.
Light-duty Vehicle (LDV) Zero Emission Vehicles (ZEVs) Sector	
100% of LDV sales are ZEV by 2035	***No conflict.*** As this action pertains to LDV sales within California, the project would not obstruct or interfere with its implementation.
Truck ZEVs Sector	
100% of medium-duty vehicle (MDV)/ heavy-duty vehicle (HDV) sales are ZEV by 2040	***No conflict.*** As this action pertains to MDV and HDV sales within California, the project would not obstruct or interfere with its implementation.
Electricity Generation Sector	
Sector GHG target of 38 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2030 and 30 $MMTCO_2e$ in 2035 Retail sales load coverage[1] 20 gigawatts (GW) of offshore wind by 2045 Meet increased demand for electrification without new fossil gas-fired resources	***No conflict.*** As this Action pertains to the statewide procurement of renewably generated electricity, the project would not obstruct or interfere with its implementation.
New Residential and Commercial Buildings Sector	
All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030	***No conflict.*** The project would not obstruct or interfere with agency efforts to meet the all-electric appliance and heat pump goals.
Construction Equipment Sector	
25% of energy demand electrified by 2030 and 75% electrified by 2045	***No conflict.*** As this Action pertains to the electrification of off-road equipment across California, the project would not obstruct or interfere with its implementation. However, the project would support the Action through the requirement that all cargo handling be zero-emission (MM-AQ-2).

Table 3.8-4. Project Potential to Conflict with 2022 Scoping Plan GHG Reduction Measures

Action	Potential to Conflict
Low Carbon Fuels for Transportation Sector	
Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen	*No conflict.* The project would not obstruct or interfere with agency efforts to increase the provision of low carbon fuels for transportation.
Low Carbon Fuels for Buildings and Industry Sector	
In 2030s biomethane blended in pipeline Renewable hydrogen blended in fossil gas pipeline at 7% energy (~20% by volume), ramping up between 2030 and 2040 In 2030s, dedicated hydrogen pipelines constructed to serve certain industrial clusters	*No conflict.* The project would not obstruct or interfere with agency efforts to increase the provision of low carbon fuels for use in buildings and industry.
High GWP Potential Emissions Sector	
Low GWP refrigerants introduced as building electrification increases, mitigating HFC emissions	*No conflict.* The project would not obstruct or interfere with agency efforts to introduce low GWP refrigerants.

Source: CARB 2022.
Note:
[1] As noted in Table 2-1 of the 2022 Scoping Plan, SB 100 speaks only to retail sales and state agency procurement of electricity (i.e., wholesale or non-retail sales and losses from storage and transmission and distribution lines are not subject to the law).

Based on the analysis in Table 3.8-3 and Table 3.8-4, the project would not conflict with the applicable strategies and measures in the 2017 Scoping Plan and 2022 Scoping Plan, respectively.

The 2045 carbon neutrality goal required CARB to expand proposed actions in the 2022 Scoping Plan to include those that capture and store carbon in addition to those that reduce only anthropogenic sources of GHG emissions. However, the 2022 Scoping Plan emphasizes that reliance on carbon sequestration in the state's natural and working lands will not be sufficient to address residual GHG emissions, and achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality will require development of technologies and programs that are not currently known or available, the project's role in supporting the statewide goal would be speculative and cannot be wholly identified at this time.

Overall, the project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As mentioned above, several Scoping Plan measures would result in reductions of project-related GHG emissions with no action required at the project-level, including those related to energy efficiency, reduced fossil fuel use, and renewable energy production by the utility. In addition, as identified previously, the project would result in a slight reduction in regional employee VMT,

as requiring electric cargo handling equipment, and EV charging stations. As demonstrated above, the project would not conflict with CARB's 2017 or 2022 Scoping Plan updates and with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals.

Potential to Conflict with the Southern California Association of Governments 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy

Less-than-Significant Impact. The following strategies are intended to be supportive of implementing Connect SoCal 2020 and reducing GHGs: focus growth near destinations and mobility options; promote diverse housing choices; leverage technology innovations; support implementation of sustainability policies; and promote a green region (SCAG 2020). The strategies that pertain to residential development and SCAG's support of local jurisdiction sustainability efforts would not apply to the project. The project's potential to conflict with the remaining applicable strategies is presented below.

- Focus Growth Near Destinations and Mobility Options. One of the strategies within Connect SoCal 2020 is to, among other aspects, expand job opportunities near transit and along center-focused main streets, as well as the promote the redevelopment of underperforming retail development and other outmoded non-residential uses. The project would not conflict with this strategy of the Connect SoCal 2020 as the project would fulfill a need for industrial warehouse uses and employment opportunities where one does not currently exist, thus eliminating the need to travel farther distances for such services and employment opportunities.
- Leverage Technology Innovations. One of the technology innovations identified in Connect SoCal 2020 that would apply to the project is the promotion and support of low emission technologies for transportation, such as alternative fueled vehicles to reduce per capita GHG emissions. The project would not conflict with SCAG's ability to implement this strategy and would utilize all-electric cargo handling equipment during operation and would include EV charging stations for vehicles.
- Promote a Green Region. The third applicable strategy within Connect SoCal 2020, for individual developments, such as the project, involves promoting a green region through efforts such as supporting local policies for renewable energy production and promoting more resource efficient development (e.g., reducing energy consumption) to reduce GHG emissions. As noted in Section 2, Project Description and mitigation measure AQ-2, the project would incorporate multiple design features that would reduce GHGs, electric cargo handling equipment, and EV charging stations.

Based on the analysis above, the project would be consistent with Connect SoCal 2020.

Summary

As shown above, the project would not conflict with CARB's 2017 or 2022 Scoping Plan updates and with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals, and SCAG's Connect SoCal 2020. Therefore, impacts related to the consistency with an appliable GHG reduction plan would be less than significant.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Short-Term Construction Impacts

Less-than-Significant Impact. In October 2022, a Phase I Environmental Site Assessment was prepared by Hazard Management Consulting Inc. to characterize the potential hazards associated with the historical and current uses of the project site and surrounding areas, which has been included as Appendix G to this document. Historical uses of the project site included residential land and vacant land from as early as 1966. Additional vehicle parking was developed in 1989 at the project site, later the open-air structures present today, developed in 1994. The site appeared to be occupied by various individuals and some of them may have operated businesses from their homes. The project site was first seen with vehicle storage in 1985. The site remains in residential and open-air structure uses until the residential portions of the site were first seen as vacant land again in 2012. Currently, the site has vacant land, residential use, and open-air structures.

Based on the results of the research, available data, and a site survey, the Phase I Environmental Site Assessment (Appendix G) identified grease and oil superficial staining and crushed asphalt/paving fabric that may contain asbestos. Demolition of the crushed asphalt/paving fabric can cause encapsulated asbestos-containing materials (ACM) (if present) to become friable and, once airborne, would be considered a carcinogen. A carcinogen is a substance that causes cancer or helps cancer grow. Such releases could pose significant risks to persons living and working in and around the project area, as well as to project construction workers. Due to this likelihood of ACMs being present on the site, a pre-demolition ACM survey should be conducted prior to any disturbance of suspected ACMs.

Abatement of all ACM encountered during any future building demolition activities would be required to be conducted in accordance with all applicable laws and regulations, including those of the EPA (which regulates disposal), Occupational Safety and Health Administration (OSHA), U.S. Department of Housing and Urban Development, Cal/OSHA (which regulates employee exposure), and SCAQMD.

For example, the EPA requires that all asbestos work performed within regulated areas be supervised by a person who is trained as an asbestos supervisor (EPA Asbestos Hazard Emergency Response Act, 40 CFR 763). SCAQMD's Rule 1403 requires that buildings undergoing demolition or renovation be surveyed for ACM prior to any demolition or renovation activities. Should ACM be identified, Rule 1403 requires that ACM be safely removed and disposed of at a regulated disposal site, if possible. If it is not possible to safely remove ACM, Rule 1403 requires that safe procedures be used to demolish the building with asbestos in place without resulting in a significant release of asbestos to the environment. Additionally, during demolition, grading, and excavation, all construction workers would be required to comply with the requirements of Title 8 of the California Code of Regulations, Section 1529 (Asbestos), which provides the exposure limits, exposure monitoring, respiratory protection, and good working practices by workers exposed to asbestos.

Mandatory compliance with these regulatory requirements would ensure that construction workers and the public are not exposed to significant ACM health hazards during demolition and/or transport of demolition waste to an appropriate disposal facility, and would ensure that impacts related to ACM less than significant.

Upon completion of soil remediation efforts in compliance with the guidelines outlined in Appendix G potentially hazardous materials would likely be handled on the project site as part of project construction. These materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products required to operate and maintain construction equipment. Handling of these potentially hazardous materials would be temporary and would coincide with the short-term construction phase of the project.

Although these materials would likely be stored on the project site, storage would be required to comply with the guidelines set forth by each product's manufacturer and with all applicable federal, state, and local regulations pertaining to the storage of hazardous materials. Consistent with federal, state, and local requirements, the transport of hazardous materials to and from the project site would be conducted by a licensed contractor. Any handling, transport, use, or disposal of hazardous materials would comply with all relevant federal, state, and local agencies and regulations, including EPA, the California Department of Toxic Substances Control, OSHA, the California Department of Transportation (Caltrans), the Resource Conservation and Recovery Act, and the SCAQMD. Therefore, with compliance with applicable regulations, short-term construction impacts related to the transport, use or disposal of hazardous materials would be less than significant.

Long-Term Operational Impacts

Less-than-Significant Impact. Potentially hazardous materials associated with project operations would include materials used during typical cleaning and maintenance activities. Although these potentially hazardous materials would vary, they would generally include household cleaning products, paints, fertilizers, and herbicides and pesticides. Many of these materials are considered household hazardous wastes, common wastes, and/or universal wastes by the EPA, which considers these types of wastes to be common to businesses and households and to pose a lower risk to people and the environment than other hazardous wastes when properly handled, transported, used, and disposed of (EPA 2023b). Federal, state, and local regulations typically allow these types of wastes to be handled and disposed of with less stringent standards than other hazardous wastes, and many of these wastes do not have to be managed as hazardous waste. Additionally, any potentially hazardous material handled on the project site would be limited in both quantity and concentrations, consistent with other similar industrial uses located in the City, and any handling, transport, use, and disposal would comply with applicable federal, state, and local agencies and regulations. Further, as mandated by OSHA (OSHA n.d.), all hazardous materials stored on the project site would be accompanied by a Material Safety Data Sheet, which would inform employees and first responders as to the necessary remediation procedures in the case of accidental release. Therefore, long-term operational impacts associated with hazardous materials would be less than significant.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact. Refer to response provided in Section 3.9(a).

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-than-Significant Impact. The nearest school to the project site is Highland Head Start located adjacent to the project site.

Short-Term Construction Impacts

As described in Section 3.9(a), demolition and construction of the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or create a significant hazard to the public or the environment involving the release of hazardous materials into the environment. Additionally, as described in detail in Section 3.3, Air Quality, a construction health risk assessment (HRA) was prepared to evaluate the health impacts of diesel particulate matter (DPM), a carcinogenic air toxic, that would be emitted from construction equipment associated with the project. The HRA evaluated the Project's potential cancer and noncancer health impacts using exposure periods appropriate to evaluate long-term emission increases (third trimester to 30 years), and took into account the exposure duration for a student who would both live in proximity of the project and attend school at the Highland Head Start. As shown in Table 3.3-7 in Section 3.3, the project construction activities would result in a Residential Maximum Individual Cancer Risk of 29.63 in 1 million, which is greater than the significance threshold of 10 in 1 million. Project construction would result in a Residential Chronic Hazard Index of 0.01, which is below the 1.0 significance threshold. The Project construction TAC health risk impacts would be potentially significant, and MM-AQ-1 is required to reduce impacts to levels less than significant. No additional mitigation beyond MM-AQ-2 is required for construction-related impacts within 0.25-mile of a school. With these mitigation measures incorporated, impacts from construction would be less than significant.

Long-Term Operational Impacts

As described in Section 3.9(a), the long-term operations of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or create a significant hazard to the public or the environment involving the release of hazardous materials into the environment. Use of extremely hazardous materials and accumulation of acutely hazardous wastes are not anticipated.

Additionally, as discussed in Section 3.3, Air Quality, an operational HRA was prepared to evaluate the health impacts of diesel particulate matter (DPM), a carcinogenic air toxic, that would be emitted from operational truck traffic associated with the project. As shown in Table 3.3-10 in Section 3.3, the DPM emissions from operation of the project would result in a Residential Maximum Individual Cancer Risk of 65.3 in 1 million and a Residential Chronic Hazard Index of 0.01. These impact levels would be greater than the SCAQMD significance threshold resulting in a potentially significant impact and MM-AQ-2 is required to reduce impacts to levels less than significant. No additional mitigation beyond MM-AQ-2 is required for operational-related impacts within 0.25-mile of a school. With these mitigation measures incorporated, impacts from long-term operations would be less than significant.

d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The project site is not included on any hazardous waste site lists, including the California Department of Toxic Substances Control's EnviroStor database, the State Water Resources Control Board's GeoTracker site, the Cortese list, or other lists compiled pursuant to Section 65962.5 of the Government Code (EPA 2023c; DTSC 2023; SWRCB 2023b). Therefore, no impacts associated with hazardous materials sites would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less-than-Significant Impact. The San Bernardino International Airport and Trade Center (SBIA) is located approximately 0.70 miles south of the project site. The SBIA includes two distinct components: (1) the airport portions (and related facilities) of the former Norton Air Force Base, and (2) the Trade Center, which encompasses the non-airport related portions of the former base. The project site is located within the Airport Influence Area (General Plan Figure 6-7) outlined in the City's General Plan (City of Highland 2006). As required by state law for real estate transactions within the Airport Influence Area, notification/disclosure statements are required to alert potential buyers and tenants of the presence of and potential impacts from the San Bernardino International Airport. The San Bernardino Airport Land Use Plan is currently being drafted and was not available at the time of this report. Nonetheless, the Federal Aviation Administration Regulations Title 14 Part 77 determines restrictions to obstructions and height limitations for structures taller than 200 feet or within 20,000 feet of an airport. The proposed project would be consistent with the general land use of the area. Additionally, the project would be consistent with Section 19.20.015 Noise Standards. Therefore, impacts would be less than significant.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. The City of Highland has an Emergency Operations Plan to ensure the most effective and economical allocation of resources for the maximum benefit and protection of the City in times of emergency. No revisions to this plan would occur as a result of the project. The project does not propose any changes to the geometry of evacuation route roadways to the extent that these roadways' ability to serve as emergency evacuation routes would be compromised. As a result, the project would not significantly affect emergency response or evacuation activities. Therefore, impacts would be less than significant.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The City's General Plan does not designate the project site as an area that would be at risk from wildland fires. Although there are currently some isolated vacant lots in the vicinity of the project site, the area surrounding the project site is largely developed and would not likely aid the spread of wildfire. Therefore, no direct or indirect impacts due to wildfire would occur.

3.10 Hydrology and Water Quality

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X.	**HYDROLOGY AND WATER QUALITY** – Would the project:				
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
	ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
	iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
	iv) impede or redirect flood flows?	☐	☐	☐	☒
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Short-Term Construction Impacts

Less-than-Significant Impact. Construction of the project would include earthwork activities that could potentially result in erosion and sedimentation, which could subsequently degrade downstream receiving waters and violate water quality standards. Stormwater runoff during the construction phase may contain silt and debris, resulting in a short-term increase in the sediment load of the municipal storm drain system.

Substances such as oils, fuels, paints, and solvents may be inadvertently spilled on the project site and subsequently conveyed via stormwater to nearby drainages, watersheds, and groundwater.

For stormwater discharges associated with construction activity in the State of California, the State Water Resources Control Board (SWRCB) has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) to avoid and minimize water quality impacts attributable to such activities. The Construction General Permit applies to all projects in which construction activity disturbs more than one acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a SWPPP, which would include and specify water quality BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off site into receiving waters (in this case, the City Creek Bypass Channel, the Twin Creek Channel, the Prado Flood Control Basin, the Santa Ana River, and its discharge into the Pacific Ocean). Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB (SWRCB 2023a).

The City of Highland is a co-permittee under San Bernardino County's National Pollution Discharge Elimination System (NPDES) Permit (No. CAS618036), and as such is required to adhere to the County-wide NPDES permit requirements. Because land disturbance for project construction activities would exceed one acre, the project Applicant would be required to obtain coverage under the Construction General Permit issues by the SWRCB prior to the start of construction within the project site. Specifically, the Construction General Permit requires that the following be kept on site at all times: (i) a copy of the Notice of Intent to Comply with Terms of the General Permit to Discharge Water Associated with Construction Activity; (ii) a waste discharge identification number issues by the SWRCB; (iii) a SWPPP and Monitoring Program Plan for the construction activity requiring the construction permit; and (iv) records of all inspections, compliance and non-compliance reports, evidence of self-inspection, and good housekeeping practices.

The SWPPP requires the construction contractor to implement water quality BMPs to ensure that water quality standards are met, and that stormwater runoff from the construction work areas do not cause degradation of water quality in receiving water bodies. The SWPPP must describe the type, location, and function of stormwater BMPs to be implemented, and must demonstrate that the combination of BMPs selected are adequate to meet the discharge prohibitions, effluent standards, and receiving water limitations are contained in the Construction General Permit. Therefore, short-term construction impacts associated with water quality, stormwater drainage, and stormwater runoff would be less than significant.

Long-Term Operational Impacts

Less-than-Significant Impact. The project would be subject to the municipal stormwater permit, the Municipal Separate Storm Sewer System (MS4) Permit, issued to San Bernardino County and incorporated cities within the County by the Santa Ana Regional Water Quality Control Board. The MS4 Permit requires implementation of Low Impact Development BMPs to prevent pollutants from being discharged off site by mimicking pre-development site hydrology and feasible source control. The Low Impact Development Ordinance is designed to reduce runoff from impervious surfaces, including new development, through landscape design that promotes water retention, permeable surface design,

natural drainage systems, and on-site retention where feasible (RWQCB 2010). These project-specific designs would reduce impacts to water quality associated with redevelopment.

As required by the San Bernardino County Municipal Separate Stormwater Sewer System NPDES Permit, a preliminary Water Quality Management Plan (WQMP) was prepared for the project in February 2023 (Appendix H-1). The WQMP is a post-construction management program that outlines implementation measures to ensure water quality standards are met, including implementation of source control and operational BMPs such as designing landscape to minimize irrigation and runoff; utilizing covered and leak proof trash dumpsters; and sweeping and litter control of loading areas in order to prevent pollutants from entering runoff. The WQMP would be implemented prior to the issuance of grading/building permits as required by the San Bernardino County Municipal Separate Stormwater Sewer System NPDES Permit. The project would not violate any water quality standards or waste discharge requirements during long-term operation through compliance with the WQMP. Therefore, long-term operational impacts associated with water quality, stormwater drainage, and stormwater runoff would be less than significant.

In summary, project grading and construction would be completed in accordance with an NPDES-mandated SWPPP, which would include standard BMPs to reduce potential off-site water quality impacts related to erosion and incidental spills of petroleum products and hazardous substances from equipment. Surface water runoff during project operations would be managed through the use of a proposed underground infiltration/detention system on the southwest corner of the project site. Therefore, the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality and water quality impacts would be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Groundwater Supplies

Less-than-Significant Impact. The project site is located within the service area of the EVWD. EVWD's main water supply is from the Bunker Hill Basin which has the capacity to provide 70,000 acre-foot per year from groundwater and surface water resources. The proposed project would connect to an existing 30-inch water service line located along 5th Street.

Additionally, according to the geotechnical investigation (Appendix F), groundwater was not encountered during test excavations, which extended to a maximum depth of 6 feet. As such, the project's subsurface construction activities, which would only extend a few feet below grade, are highly unlikely to encounter groundwater, and dewatering activities are not anticipated to be necessary. Therefore, impacts associated with groundwater supplies would be less than significant.

Groundwater Recharge

Less-than-Significant Impact. Although not fully developed, the project site is highly disturbed and does not contain a groundwater recharge basin or other facilities that promote groundwater recharge. Thus, under the existing condition, the project site is not considered an important location for groundwater recharge. Following construction, the project site would contain landscape areas and other pervious

surfaces that would allow for water to percolate into the subsurface soils compared to the existing conditions. Therefore, impacts associated with groundwater recharge would be less than significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site?

Less-than-Significant Impact. Under the existing conditions, the project site consists of residential home, storage garages, and vacant land. The project would result in the demolition and removal of the existing structures on the project site and the construction of new paved surfaces, a warehouse building, and landscape areas. Existing on-site runoff sheet flows northeast to 5th Street. Off-site runoff is collected by an existing storm drain system in 5th Street. The existing drainage system would serve as an emergency overflow for the proposed 72-inch corrugated metal pipe infiltration system. The project would also include a new engineered storm drainage system that would feature structural BMPs, including an infiltration/detention system to treat and manage on-site stormwater flows. The proposed infiltration/detention system would be designed to capture 100% of a 100-year storm event and would minimize the potential for siltation or erosion on or off site. The project's proposed storm drain system would be designed to conform with all applicable federal, state and local requirements related to drainage, hydrology, and water quality, including the current MS4 Permit adopted by the Santa Ana Regional Water Quality Control Board. Additionally, the project's structural BMPs would be designed such any potential sediments collected on site are captured in retention facilities so that they would not be conveyed to downstream waters and result in siltation.

As such, altering the on-site drainage pattern would be conducted in a manner consistent with all applicable standards related to the collection and treatment of stormwater, such that they would not result in substantial erosion or siltation on or off site. Therefore, impacts associated with altering the existing drainage pattern of the project site would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less-than-Significant Impact. As discussed in Section 3.10(c)(i), the project would increase the amount of impervious surfaces on the project site and inevitably alter the existing on-site drainage pattern. Runoff generated by the project site would be routed to the proposed underground infiltration/detention system on the western side of the project site through a combination of roof drains, storm drains, curbs, and gutters. The development of the existing site into the proposed project would not create any adverse impacts downstream for storm events up to the 100-year storm. There would not be an increase in the existing discharge from the site in both the 10-year and 100-year events due to the proposed infiltration basin that would be sized to capture and infiltrate the 100-year rainfall event. Discharge from the site would greatly decrease from the existing condition.

Under existing conditions, stormwater runoff sheet flows southwest to 5th Street. There are currently no existing storm drain facilities on the western side of the project site to capture surface runoff, and stormwater is collected in a storm drain system in 5th Street. As such, the proposed project would not increase the amount of surface runoff and impacts would be less than significant.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less-than-Significant Impact. As discussed in Section 3.10(c)(i), the project would increase the amount of impervious surfaces on the project site and inevitably alter the existing on-site drainage pattern. Runoff generated by the project site would be routed to the proposed underground infiltration/detention system on the southwest side of the project site through a combination of roof drains, storm drains, curbs, and gutters.

The proposed on-site underground infiltration/detention system was designed to infiltrate 100% of the 100-year storm event. However, if the proposed underground infiltration/retention chamber system reaches capacity, flows would then be discharged through a proposed 4-inch curb opening outlet in the southwest corner that would outlet to the westerly portion of the site. that would lead to the existing 5th Street storm drain system that would serve as an emergency spillway (Preliminary Drainage Report, Appendix H-2). According to the Preliminary Drainage Report (Appendix H-2) prepared for the project, the underground infiltration/detention system has the capacity to retain 14,803 cubic feet of stormwater before any stormwater is allowed to discharge from the project site, which is large enough to accommodate a 100-year storm event. The analysis concluded that the drainage and storm drain facilities are adequately sized to handle a 100-year design storm event, consistent with the methodology outlined in the San Bernardino County Flood Control District Hydrology Manual. Therefore, impacts associated with the project creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff would be less than significant.

iv) Impede or redirect flood flows?

No Impact. According to the Federal Emergency Management Agency Flood Insurance Rate Maps No. 06071C8701J and 06071C8702H (FEMA 2016), the project site is located in Zone X which is located outside of the 0.2% Annual Chance Flood Hazard Zone (500-year floodplain) and is within an area with reduced flood risk due to levee. Implementation of the project would not substantially impede or redirect flood flows. Therefore, no impacts associated with flooding would occur.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less-than-Significant Impact. The project site is located approximately 70 miles east of the Pacific Ocean. Because of the project site's inland location, the project would not be subject to tsunami. Additionally, due to the lack of a larger adjacent perennial waterbody such as a reservoir or lake, the project site would not be susceptible to seiche. Further, the project site's relatively flat topography and lack of nearby hillside would eliminate any impact-related mudflow. However, the project site, along with most of the City of Highland, is within the limit of flooded area with dam failure of the Seven Oaks Dam and 500-Year floodplain

(City of Highland 2006). The Seven Oaks Dam has been designed to resist an earthquake measuring 8.0 on the Richter scale and is designed to provide flood protection during 350-year storm events. Based on these design characteristics and ongoing maintenance of the dam's structural integrity, it is highly unlikely that the project site would be subject to inundation due to failure of the Seven Oaks Dam. Therefore, due to the low likelihood that the Seven Oaks Dam would be subject to failure and because the project would not involve the uncontained storage of pollutants outside of the proposed building, the project would not risk release of pollutants due to inundation associated with these natural phenomena, and impacts would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact. Refer to responses provided in Section 3.10(a) and 3.10(b). The project would comply with regional and local regulations requiring preparation of a SWPPP and would not obstruct existing water quality control plans or groundwater sustainable management plans. In addition, the project applicant would comply with the project specific WQMP during operation activities. The proposed project would provide an on-site infiltration/detention basin, which would help the City sustainably manage groundwater levels. Therefore, impacts associated with conflict with a water quality control plan or sustainable groundwater management plan would be less than significant.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

a) Would the project physically divide an established community?

No Impact. The physical division of an established community is typically associated with the construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, which would impair mobility within an existing community or between a community and an outlying area. Currently, the project site is located within an area of the City that is primarily zoned for business park and industrial uses, and thus, is not used as a connection between two established communities.

Instead, connectivity in the surrounding project area is facilitated via local roadways and pedestrian facilities. Despite the nearby scattered residential uses, the project would not impede movement between these

residences within the project area, within an established community, or from one established community to another. Therefore, no impacts associated with division of an existing community would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-Significant Impact. The City's Zoning Map designates the project site as BP. According to Section 16.24.020 (A), the primary purpose of the BP District is to provide appropriate regulations and suitable locations for light industrial, research and development, and office-based firms seeking pleasant and attractive working environments, and for business support services and commercial uses requiring large parcels. The Municipal Code identifies Warehousing and Wholesaling as permitted, subject to a conditional use permit application. As part of the City's site-plan review process, the City would thoroughly review all plans for the proposed project to ensure compliance with all applicable development standards set forth in the Municipal Code and other relevant land use plans, policies, and regulations. As part of the City's site-plan review process, the City has determined that the project would be consistent with all development standards required for the BP Zone, with the exception of Section 16.24.040 Employment district development standards, of the City's Municipal Code, which states that building heights are not to exceed 35 feet within the BP District. The project proposes a building height of 45. However, with the processing of a variance consistent with the procedures outlined in Section 16.08.870, which states that the City may permit such modification of the height regulations as are necessary to secure an appropriate improvement on a lot. As such, upon approval of Variance No. 23-001, the project's height could be allowed within in the BP District.

The City's General Plan Land Use Map designates the project site as BP within the 5th Street Corridor (City of Highland 2006). The BP land use permits a variety of light industrial, research and development, and office uses. The maximum floor area ratio permitted within the BP designation is 0.6 (City of Highland 2006). The proposed project would include construction of an industrial warehouse with a maximum floor area ratio of 0.43. As such, the proposed project is consistent with the permitted land use and maximum density permitted by the City.

The 5th Street Corridor is located along 5th Street from Tippecanoe Avenue to I-210. The purpose of the 5th Street Corridor is to take advantage of the increasing demand for industrial uses west of I-15 by providing opportunity to capture some of this potential employment growth by creating an area within the City dominated by Business Park and Industrial land uses (City of Highland 2006). Development of a light industrial warehouse would introduce additional processing and distribution opportunities in close proximity to the San Bernardino International Airport.

As such, the project would be consistent with local plans, policies, and regulations governing land use decisions. Therefore, impacts associated with applicable land use plans, policies, and regulations would be less than significant.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less-than-Significant Impact. According to the City's General Plan, the project site is within an MRZ-2, meaning significant mineral deposits or likelihood of significant mineral deposits exist; however, the significance of the deposit is undetermined (City of Highland 2006).

The project site is located in an urbanized portion of the City and is bound by existing residential, commercial, and industrial development in all directions. Mineral resource mining is not a compatible use with these land uses. The project site is not large enough to effectively extract mineral resources. Considering the existing surrounding land uses and the incompatibility of mineral resource extraction activities in the project area, potential significant mineral resources within the project area are considered unavailable for extraction. Therefore, impacts associated with mineral resources would be less than significant.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Less-than-Significant Impact. Refer to the response provided in Section 3.12(a).

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Noise and Vibration Characteristics

Noise is defined as unwanted sound. Sound may be described in terms of level or amplitude (measured in decibels [dB]), frequency or pitch (measured in hertz or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the amplitude of sound is the decibel. Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear. Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise, on a community. These descriptors include the equivalent noise level over a given period (L_{eq}), the statistical sound level, the day–night average noise level (L_{dn}), and the Community Noise Equivalent Level (CNEL). Each of these descriptors uses units of dBA. Table 3.13-1 provides examples of A-weighted noise levels from common sounds. In general, human sound perception is such that a change in sound level of 3 dBA is barely noticeable, a change of 5 dBA is clearly noticeable, and a change of 10 dBA is perceived as doubling or halving the sound level.

Table 3.13-1. Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
—	110	Rock band
Jet flyover at 300 meters (1,000 feet)	100	—
Gas lawn mower at 1 meter (3 feet)	90	—

Table 3.13-1. Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Diesel truck at 15 meters (50 feet), at 80 kilometers per hour (50 mph)	80	Food blender at 1 meter (3 feet) Garbage disposal at 1 meter (3 feet)
Noisy urban area, daytime gas lawn mower at 30 meters (100 feet)	70	Vacuum cleaner at 3 meters (10 feet)
Commercial area Heavy traffic at 90 meters (300 feet)	60	Normal speech at 1 meter (3 feet)
Quiet urban daytime	50	Large business office Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural night time	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 2013.
Note: dBA = A-weighted decibel.

L_{eq} is a sound energy level averaged over a specified period (typically no less than 15 minutes for environmental studies). L_{eq} is a single numerical value that represents the amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour L_{eq} measurement would represent the average amount of energy contained in all the noise that occurred in that hour. L_{eq} is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors.

Unlike the L_{eq} metrics, L_{dn} and CNEL metrics always represent 24-hour periods, usually on an annualized basis. L_{dn} and CNEL also differ from L_{eq} because they apply a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). "Time weighted" refers to the fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime (10:00 p.m.–7:00 a.m.) noise is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., thus eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5 dB to 1 dB and, as such, are often treated as equivalent to one another.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earthmoving equipment.

Several different methods are used to quantify vibration. Peak particle velocity is defined as the maximum instantaneous peak of the vibration signal. Peak particle velocity is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square amplitude is most frequently used to describe the effect of vibration on the human body and is defined as the average of the squared amplitude of the signal. Decibel notation is commonly used to measure root mean square. The decibel notation acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of vibration can damage fragile buildings or interfere with equipment that is highly sensitive to vibration (e.g., electron microscopes). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would be considered noise and vibration sensitive and may warrant unique measures for protection from intruding noise. Sensitive receptors in the vicinity of the project site consist of a Head Start school located to the east, residential uses located to the north, east and west of the project site, and zoned residential uses to the north. These sensitive receptors represent the nearest sensitive land uses with the potential to be impacted by construction and/or operation of the project.

Existing Noise Conditions

Noise measurements were conducted in the vicinity of the project site on January 11, 2022, to characterize the existing noise levels. Table 3.13-2 provides the locations, dates, and times the noise measurements were taken. The noise measurements were taken using a Soft dB Piccolo sound level meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute standard for a Type 2 (General Use) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Table 3.13-2. Measured Noise Levels

Receptor	Location	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
ST1	East of project site, adjacent to a Head Start School at 26887 5th Street	1/11/22	11:41 a.m.–11:56 a.m.	63.8	84.5
ST2	North of project site, adjacent to residence at 26837 Mossway Street	1/11/22	12:04 p.m.–12:19 p.m.	63.6	79.4
ST3	Northeast of project site, adjacent to residence at 27014 5th Street	1/11/22	12:32 p.m.–12:47 p.m.	65.1	76.6

Table 3.13-2. Measured Noise Levels

Receptor	Location	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
ST4	Southwest of project site, adjacent to residence at 26562 3rd Street	1/11/22	1:01 p.m.–1:16 p.m.	64.1	80.7

Source: Appendix I-1.
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibels; L_{max} = maximum sound level during the measurement interval.

Four short-term noise measurement locations (ST1–ST4) were conducted in the vicinity of the project site, as shown in Figure 11, Noise Measurement Locations. The measured L_{eq} and maximum noise levels are provided in Table 3.13-2. The field noise measurement data sheets are provided in Appendix I-1, Field Data Noise Sheets. The primary noise sources at the sites identified in Table 3.13-2 consisted of traffic on local roadways; other, secondary noise sources included occasional construction activities, and birds. As shown in Table 3.13-2, the measured sound levels ranged from approximately 64 dBA L_{eq} at ST1, ST2 and ST3 to approximately 65 dBA L_{eq} at ST4.

Regulatory Setting

Federal

There are no federal noise standards that would directly regulate environmental noise during construction and operation of the project. The following is provided because guidance summarized herein is used or pertains to the analysis.

Federal Transit Administration

In its Transit Noise and Vibration Impact Assessment guidance manual, the Federal Transit Administration (FTA) recommends a daytime construction noise level threshold of 80 dBA L_{eq} over an 8-hour period (FTA 2018) when detailed construction noise assessments are performed to evaluate potential impacts to community residences surrounding a project. Although this FTA guidance is not a binding regulation, it is provided here for comparison purposes in the absence of such limits at the state and local jurisdictional levels.

Federal Interagency Committee on Noise

Some guidance regarding the determination of a substantial permanent increase in ambient noise levels in the project vicinity above existing levels is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON) (FICON 1992), which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. The FICON recommendations are based upon studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a qualitative measure of the adverse reaction of people to noise that generates speech interference, sleep disturbance, or interference with the desire for a tranquil environment.

The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of L_{dn}. The changes in noise exposure that are shown in Table 3.13-3 are expected to result in equal changes in annoyance at sensitive land uses. Although the FICON recommendations were specifically developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to all transportation noise sources and permanent non-transportation noise sources.

Table 3.13-3. Measures of Substantial Increase for Community Noise Sources

Ambient Noise Level Without Project (Ldn)	Significant Impact Assumed to Occur if the Project Increases Ambient Noise Levels by:
<60 dBA	+ 5 dBA or more
60–65 dBA	+ 3 dBA or more
>65 dBA	+ 2 dBA or more

Source: FICON 1992.
Notes: L_{dn} = day–night average noise level; dBA = decibels.

State

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 dBA CNEL and "conditionally acceptable" up to 70 dBA CNEL.[14] Multiple-family residential uses are "normally acceptable" up to dBA 65 CNEL and "conditionally acceptable" up to dBA 70 CNEL. Schools, libraries, and places of worship are "normally acceptable" up to 70 dBA CNEL, as are office buildings and business, commercial, and professional uses.

Local

City of Highland Municipal Code

Operational Noise Standards

Pursuant to Chapter 8.50 (Noise Control) of the Highland Municipal Code, allowable daytime (between the hours of 7:00 AM and 10:00 PM) and nighttime (between the hours of 10:00 PM and 7:00 AM) noise levels are as follows:

- Residential – 60 dBA daytime, 55 dBA nighttime.
- Commercial – 70 dBA daytime, 65 dBA nighttime.
- Industrial Zone – 75 dBA at any time.

Construction Noise Standards s

Pursuant to Section 8.50.060 (Exemptions), noise associated with "construction, repair, or excavation work performed pursuant to a valid written agreement with the city or any of its political subdivisions, which agreement provides for noise mitigation measures," is exempt. Because the proposed project does not include a Development Agreement or other agreement with the City or any of its political subdivisions, it is not exempt from performing a

[14] A "conditionally acceptable" designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements.

construction noise analysis and providing adequate mitigation measures. The following includes an analysis of the project's construction noise impacts.

City of Highland General Plan

The City's General Plan Noise Element (City of Highland 2006) references the Municipal Code's noise standards as guidelines to evaluate the acceptability of noise impacts. These standards are used to assess long-term noise impacts on land uses. The Noise Element identifies noise problems in the community, quantifies existing and projected noise levels, addresses excessive noise exposure, and provides regulations to control noise. The General Plan Noise Element contains the following goals and policies that address noise and are applicable to the project:

Goal 7.1. Protect sensitive land uses and the citizens of Highland from annoying and excessive noise through diligent planning and regulation.

Policies:

- Enforce the City's Noise Control Ordinance consistent with health and quality of life goals and employ effective techniques of noise abatement through such means as a noise ordinance, building codes and subdivision and zoning regulations.
- Encourage the use of site planning and architectural techniques such as alternative building orientation and walls combined with landscaping to mitigate noise to levels consistent with interior and exterior noise standards.
- Require mitigation where sensitive uses are to be placed along transportation routes to ensure compliance with interior and exterior noise standards.
- Consider the compatibility of proposed land uses with the noise environment when preparing, revising or reviewing development proposals.

1. Require that site-specific noise studies be conducted by a qualified acoustic consultant utilizing acceptable methodologies while reviewing the development of sensitive land uses or development that has the potential to impact sensitive land uses. Also require a site-specific noise study if the proposed development could potentially violate the noise provisions of the General Plan or City ordinance.

Actions:

3) When site and architectural design features cannot sufficiently reduce adverse noise levels, or cannot be economically provided, require the provision of noise barriers/berms, provided that noise barriers:
    1. are sufficiently massive to prevent significant noise transmission and high enough to shield receiver from noise source;
    2. noise barriers exhibit a minimum acceptable density of four pounds per square foot (equivalent to ¾-inch plywood);
    3. contain no cracks or openings; and
    4. minimize the effect of flanking by bending the barrier back from the noise source at the end of the barrier.
4) Require landscaping treatment to be provided in conjunction with noise barriers to provide visual relief and to reduce aesthetic impacts.

6) Maintain a noise complaint file to document areas of excessive noise in the City.

Goal 7.3. Protect residents from the effects of "spill over" or nuisance noise.

Policies:

1. Enforce the City's Noise Control Ordinance so that new projects located in commercial or entertainment areas do not exceed stationary-source noise standards at the property line of proximate residential or commercial uses, as appropriate.
2. Prohibit new industrial uses from exceeding commercial or residential stationary-source noise standards at the most proximate land uses, as appropriate. (Industrial noise may spill over to proximate industrial uses so long as the combined noise does not exceed the appropriate industrial standards.)
3. Require that construction activities employ feasible and practical techniques to minimize noise impacts on adjacent uses. Particular emphasis shall be placed on the restriction of hours in which work other than emergency work may occur.
4. Require that the hours of truck deliveries to commercial properties abutting residential uses be limited unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at another hour.
5. Ensure that buildings are constructed to prevent adverse noise transmission between differing uses located in the same structure and individual residences in multi-family buildings.

Actions:

1) As a condition of approval, limit non-emergency construction activities adjacent to existing noise-sensitive uses to daylight hours between 7:00 a.m. and 7:00 p.m. Discourage construction on weekends or holidays except in the case of construction proximate to schools where these operations could disturb the classroom environment.
2) Ensure that the design and placement of air conditioning units and pool equipment within residential areas is accomplished in a manner that does not intrude upon the peace and quiet of adjacent noise-sensitive uses.
3) Encourage the use of portable noise barriers for heavy equipment operations performed within 100 feet of existing residences or make applicant provide evidence as to why the use of such barriers is infeasible.

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short-Term Construction Noise

Less-than-Significant Impact. Construction noise is considered a short-term impact and would be considered significant if construction activities were to exceed the allowable hours of operation, as permitted by the City. Noise-sensitive land uses in the vicinity of the project include legal non-conforming

residences to the southeast[15] (within approximately 85 feet), to the east-northeast (within approximately 1,000 feet of the construction boundary) and to the southwest (within approximately 1,400 feet of the construction boundary); a Head Start school to the east (within approximately 85 feet of the construction boundary); zoned residential uses to the north (north of 5th Street, within approximately 120 feet of the construction boundary). The construction noise assessment focused on noise levels that would occur at the nearest noise-sensitive land uses; construction noise levels at greater distances from the site would be lower. Modeling assumptions and output calculations are provided in Appendix I-2, Construction Noise Modeling Inputs and Outputs.

Project-generated construction noise will vary depending on the construction process, the type of equipment involved, the location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week), and the duration of the construction work. A likely worst-case construction noise scenario using information provided by the project applicant and equipment identified by CalEEMod (see Section 3.3, Air Quality) for this type and size of project was calculated using a spreadsheet model based the Federal Highway Administration's Roadway Construction Noise Model (FHWA 2008). Table 3.3-2 in Section 3.3 presents the equipment list used for the construction noise analysis. The results are summarized in Table 3.13-4 (see Appendix I-2 for model results). Table 3.13-4 provides construction noise estimates for both a "typical worst-case" 1-hour average scenario in which construction equipment may be operating in proximity to any one receiver for extended periods, as well as a typical 8-hour workday in which it is assumed that the equipment would be in motion and working both near and far from any one receiver, operating (on average) at the approximate acoustic center of the project site. The average noise levels (based upon the acoustic center[16]) are considered a better representation of the overall noise exposure experience for adjacent receivers over the duration of each construction phase.

As shown, the highest noise levels from construction are predicted to range from approximately 68 dBA $L_{eq\ 1\text{-}hour}$ (during the architectural coating phase) to 77 dBA $L_{eq\ 1\text{-}hour}$ (during site preparation and grading) at the nearest receivers. These maximum noise levels are considered to be a peak exposure, applicable to not more than 10%–15% of the total construction period, only while the construction activity is taking place along the property boundary closest to these nearest off-site receivers. In terms of a typical 8-hour workday, the highest noise levels from construction are predicted to range from approximately 56 dBA $L_{eq\ 8\text{-}hour}$ (during the architectural coating phase) to 68 dBA $L_{eq\ 8\text{-}hour}$ (during demolition) at the nearest receivers. Noise levels, while relatively high when equipment is operating near the project boundaries, would not exceed the FTA's 80 dBA $L_{eq\ 8\text{-}hour}$ threshold.

15 Based upon the City of Highland Zoning Map (http://maps.digitalmapcentral.com/production/VECommunityView/cities/highland/index.aspx?), the proposed project site as well as the entire two blocks (from 3rd Street to 5th Street in the north/south direction and Victoria Ave. to Alabama Street in the east-west direction) is zoned BP: Business Park. Similarly, the block at the northeast corner of Central Ave. and 5th Street is zoned I: Industrial.

16 The acoustic center is the combination of all construction work occurring on-site, near and far, and is considered to be equivalent to the geometric center, for the purposes of this analysis.

Table 3.13-4. Construction Noise Summary of Results (dBA $L_{eq\ 1\text{-}hour}$/ dBA $L_{eq\ 8\text{-}hour}$)

Receiver Location (Distance)/ Description	Zoning Designation	Construction Noise Level by Construction Phase[1]					
		Demo.	Site Prep.	Grading	Building Const.	Paving	Arch. Coating
Head start school to the east (as near as 85 feet)	Business Park	77/68	76/65	77/67	70/61	71/63	68/56
Non-conforming residence to the southeast (85 feet)	Business Park	77/66	76/62	77/64	70/59	71/61	68/54
Residence to the north (120 feet)	Residential	73/69	72/66	72/68	66/62	67/64	64/57

Source: Appendix I-2.
Notes: dBA = A-weighted decibels; $L_{eq\ 1\text{-}hour}$ = equivalent continuous sound level (time-averaged sound level) during a 1-hour period near the project boundary; $L_{eq\ 8\text{-}hour}$ = equivalent continuous sound level (time-averaged sound level) during an 8-hour construction work day; Demo. = Demolition; Site Prep. = Site Preparation; Building Const. = Building Construction; Arch. Coating = Architectural Coating.
[1] See Section 3.3, Air Quality.

Based on the construction noise analysis, noise levels during construction are estimated to create noise levels at sensitive receivers that would not exceed the FTA construction noise threshold of 80 dBA $L_{eq\ 8\text{-}hour}$. The project would be required to adhere to City of Highland General Plan limitations on construction noise through restrictions on allowable construction hours (Goal 7.3, Action 1): "As a condition of approval, limit non-emergency construction activities adjacent to existing noise-sensitive uses to daylight hours between 7:00 a.m. and 7:00 p.m. Discourage construction on weekends or holidays except in the case of construction proximate to schools where these operations could disturb the classroom environment."

Thus, with incorporation of the City's standard conditions, impacts associated with short-term construction noise would be less than significant and no mitigation measures would be required.

Long-Term Operational Noise

Less-than-Significant Impact. Operation of the project would result in the generation of noise both on and off site. Consistent with similar warehouse and light industrial uses, business operations supported by the project would primarily be conducted within the enclosed buildings, except for traffic movement, parking, and loading and unloading of trucks at designated loading bays. As such, on-site operational noise sources are expected to include roof-top air conditioning units, parking lot activity, and truck loading dock activity. Off-site noise could be generated by vehicles, including heavy trucks, accessing the project site and contributing to vehicular roadway noise. As detailed below, these operational project activities would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.

On-Site Operational Noise

Implementation of the project would result in changes to existing noise levels on and around the project site by developing new stationary sources of noise, including introduction of outdoor HVAC equipment. These sources may affect noise-sensitive vicinity land uses off the project site.

The proposed warehouse space overall would not be served by heating or air conditioning equipment. However, the floor plan includes an office with an associated mezzanine space at the northwest building corner. For the analysis of noise from HVAC equipment operation, a York Model ZF-048 package HVAC unit was used as a reference. Based upon the square footage of the office and mezzanine spaces (4,000 square feet total), it was assumed that two such units would be required for the office/mezzanine areas. The York Model ZF-048 package HVAC unit has a sound power rating of 80 dBA (Johnson Controls 2015). Based on the warehouse roof design provided, there will be a 2.8-foot-high parapet extending along the perimeter of the roof, which would minimize sound from the HVAC unit at nearby noise-sensitive land uses.

Assuming all the HVAC equipment is operating simultaneously for a minimum period of 1 hour, the worst-case calculated noise level at each property line and at the nearest noise-sensitive land uses is presented in Table 3.13-5. The maximum hourly noise level for all the HVAC equipment operating at each examined point along the property and the nearest noise-sensitive uses would range from 15 to 33 dBA $L_{eq,}$ which is well below the City's noise standard for both commercial zoning (70 dBA L_{eq} daytime, 65 dBA L_{eq} nighttime) and residences (60 dBA L_{eq} daytime, 55 dBA L_{eq} nighttime). The noise level calculation spreadsheets for the HVAC package units are included in Appendix I-3, Equipment Specifications and Noise Calculations.

Table 3.13-5. Mechanical Equipment Operation Noise Summary of Results

Equipment	Noise Level at Property Boundary	
	Receiver Location	Average Noise Level (dBA Leq)
HVAC	N1	32
HVAC	W1	29
HVAC	E1	15
HVAC	S1	19
HVAC	Residence to N	31
HVAC	Head Start to E	16
HVAC	Residence to SE	19

Source: Appendix I-3.
Note: dBA = A-weighted decibels; L_{eq} = equivalent continuous sound level (time-averaged sound level); CNEL = Community Noise Equivalent Level; HVAC = heating, ventilation, and air conditioning.

The results of the mechanical equipment operations noise analysis indicate that the project would comply with City and State of California noise standards.

Parking Lot Activity

A comprehensive study of noise levels associated with surface parking lots was published in the Journal of Environmental Engineering and Landscape Management (Baltrënas et al. 2004). The study found that average noise levels during the peak period of use of the parking lot (generally in the morning with arrival

of commuters and in the evening with the departure of commuters) were 47 dBA at 1 meter (3.3 feet) from the outside boundary of the parking lot. The parking area would function as an area source for noise, which means that noise would attenuate at a rate of 3 dBA with each doubling of distance. The employee parking lots are proposed to be situated on the east and west sides of the warehouse, no closer than 25 feet from the property line of the project site (from center of drive-aisle to fence) on the northern side, 40 feet on the western side, and approximately 35 feet on the eastern and southern sides. At a distance of 25 feet, parking lot noise levels would be approximately 38 dBA L_{eq} at the northern property boundary. At a distance of 40 feet, parking lot noise levels would be approximately 36 dBA L_{eq} at the western property boundary. At a distance of 35 feet, parking lot noise levels would be approximately 37 dBA L_{eq} at the eastern and southern property boundaries. Parking lot activity noise levels are summarized in Table 3.13-6.

Truck Loading Dock Activity

The parking lot study (Baltrënas et al. 2004) also examined noise levels associated with cargo truck delivery activity, including noise produced by backup alarms and forklift/yard hostler operations. The study concluded that average noise levels from truck loading/unloading areas was 96 dBA at 1 meter (3.3 feet) from the boundary of the truck activity area. The truck loading dock area (i.e., the truck court) would be located on the eastern side of the proposed warehouse building. The loading docks would be located approximately 110 feet from the northern property line, approximately 290 feet from the western property line, approximately 145 feet from the eastern property line and approximately 110 feet from the southern property line. At the northern, western and southern property lines the noise and view of the loading docks would be entirely obstructed by the warehouse building, and at the eastern property line the noise and view of the loading docks would be obstructed by the proposed 8-foot-high perimeter screen wall. Screen walls are also proposed to be constructed around the entire truck yard perimeter (i.e., along the northern and southern sides of the truck yard). Using the outdoor attenuation rate of 6 dBA with each doubling of distance, truck loading activity along the project property lines would produce noise levels ranging from approximately 57 to 66 dBA L_{eq}, not accounting for the shielding effects from the warehouse building and the proposed screen walls. Accounting for this acoustical shielding, the truck loading dock noise would range from approximately 30 to 60 dBA L_{eq}. Truck loading dock activity noise levels are summarized in Table 3.13-6 and combined with the other on-site noise sources.

Table 3.13-6. Combined On-Site Noise Summary of Results – Noise Levels (dBA L_{eq}) at Property Boundaries

Receiver Location	Zoning	Applicable Noise Standard - Daytime (7 a.m. to 10 p.m.) / Nighttime (10 p.m. to 7 a.m.)	HVAC	Parking Lot Activity	Truck Loading Dock Activity	Combined HVAC, Parking Lot and Truck Loading Dock Activities Noise	Applicable Noise Standard Exceeded?
N1	Business Park	70/65	32	38	40	42	No
W1	Business Park	70/65	29	36	30	38	No
E1	Business Park	70/65	15	37	56	56	No
S1	Business Park	70/65	19	37	60	60	No
Residence to N	Residential	70/65	31	31	34	37	No

Table 3.13-6. Combined On-Site Noise Summary of Results – Noise Levels (dBA L_{eq}) at Property Boundaries

Receiver Location	Zoning	Applicable Noise Standard - Daytime (7 a.m. to 10 p.m.) / Nighttime (10 p.m. to 7 a.m.)	HVAC	Parking Lot Activity	Truck Loading Dock Activity	Combined HVAC, Parking Lot and Truck Loading Dock Activities Noise	Applicable Noise Standard Exceeded?
Head Start to E	Business Park	60/55	16	31	54	54	No
Residence to SE	Business Park	70/65	19	31	34	36	No

Source: Appendix I-3.

As shown in Table 3.13-6, on-site noise sources associated with the proposed project would not exceed applicable noise standards. Thus, on-site operational noise would be less than significant.

Project-Generated Off-Site Traffic Noise

The project is expected to generate 92 daily trips to the roadway system; in terms of passenger car equivalent (PCE), which accounts for truck percentages, the project would generate 131 daily PCE trips. On an hourly basis, the project would result in a total of 9 AM and 10 PM peak-hour trips, consisting of 7 passenger vehicles and 2 trucks (ranging in size from 2-axle trucks to 4+ axle trucks) during the AM peak-hour and 7 passenger vehicles and 3 trucks during the PM peak-hour. In terms of PCE, the project would result in a total of 13 AM and 16 PM PCE peak-hour trips.[17] Vehicles entering and exiting the project site would use 5th Street, which has average daily traffic volumes of approximately 9,939.[18] This amounts to a small fraction of the total daily volume on 5th Street. The project would not result in a doubling of trips on any particular road segment. Typically, a doubling of the energy of a noise source, such as a doubling of traffic volume, would increase noise levels by 3 dB.[19] Given that it would result in only a modest increase in traffic on local and regional roadways, the project is not expected to result in an increase of 3 dBA or greater on roadways in the study area. The change in noise level due to the project would not be audible. Therefore, impacts associated with off-site project-generated traffic noise would be less than significant.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. The main concern associated with groundborne vibration is annoyance; however, in extreme cases, vibration can cause damage to buildings, particularly those that are old or otherwise fragile. Some common sources of groundborne vibration are trains and construction activities such as blasting, pile-driving, and heavy earth-moving equipment. The primary source of groundborne vibration occurring as part of the proposed project is construction activity.

17 Data from the proposed project's trip generation estimates (Section 3.17, Transportation).
18 Airport Gateway Specific Plan, Traffic Impact Analysis 2019.
19 Under normal circumstances (i.e., outside of a controlled setting such as a listening laboratory), a 3 dB increase in noise levels is considered to be the smallest increase that is audible to the human ear; whereas a less than 3 dB increase in noise levels is considered to be a barely or non-audible increase.

Groundborne vibration information related to construction/heavy equipment activities has been collected by Caltrans. Information from Caltrans indicates that transient vibrations (such as from construction activity) with approximately 0.035 inches per second peak particle velocity (PPV) may be characterized as barely perceptible, and vibration levels of 0.24 inches per second PPV may be characterized as distinctly perceptible (Caltrans 2020). The heavier pieces of construction equipment, such as large bulldozers or hoe rams, would register up to approximately 0.089 inches per second PPV at a distance of 25 feet, and a clam shovel drop would measure up to approximately 0.202 inches per second PPV at a distance of 25 feet (FTA 2018).

Groundborne vibration is typically attenuated over relatively short distances. At the nearest existing noise/vibration-sensitive use distance to the nearest construction area (approximately 85 feet – the Head Start building to the northeast) and with the anticipated construction equipment, the vibration level would be approximately 0.014 inches per second PPV. This vibration level would be lower than the threshold of "barely perceptible" of 0.035 inches per second PPV and would also be lower than the threshold of "distinctly perceptible" of 0.24 inches per second PPV.

The major concern with construction vibration is related to building damage. Construction vibration as a result of the proposed project would not result in structural building damage, which typically occurs at vibration levels of 0.5 inches per second PPV or greater for buildings of reinforced-concrete, steel, or timber construction. Therefore, impacts related to groundborne vibration would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less-than-Significant Impact. No private airstrips are located in the project vicinity. The SBIA is approximately 0.3 miles south of the project site. The project site is located within the Airport Influence Area (General Plan Figure 6-7) outlined in the City's General Plan (City of Highland 2006). As required by state law for real estate transactions within the Airport Influence Area, notification/disclosure statements are required to alert potential buyers and tenants of the presence of and potential impacts from the San Bernardino International Airport. According to Exhibit 4H (Existing and Ultimate Noise Contours) of the Airport Layout Plan Narrative Report for San Bernardino International Airport (San Bernardino International Airport Authority 2010), the SBIA's 65 dBA CNEL ultimate noise contour would be located approximately 0.2 miles south of the project site.

Policy 1 of Goal 11.1 ("Reduce exposure of people to aircraft noise and overflights, and ensure adequate public notification through buyer awareness measures") within the City's General Plan (City of Highland 2006) states: "Limit the development of sensitive land uses located within the 65 decibel (dB) Community Noise Equivalent Level (CNEL)." The City considers residential dwellings and institutional uses such as hospitals, convalescent homes and churches to be sensitive noise receptors, while retail and office uses are considered to be relatively insensitive land uses. Other land use types, including industrial and manufacturing, are considered to be least impacted by noise. Because the proposed project is not noise-sensitive, and because the project site is located outside the 65 dBA CNEL noise contour, the proposed project would not expose people residing or working in the project area to excessive noise levels. Thus, aircraft and airport-related noise would be less than significant.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less-than-Significant Impact. The project would require a temporary construction workforce and a permanent operational workforce, both of which could potentially induce population growth in the project area. The temporary workforce would be needed to construct the proposed warehouse building and associated improvements. The number of construction workers needed during any given period would largely depend on the specific stage of construction but will likely average a few dozen workers at any given time throughout the workday. These short-term positions are anticipated to be filled primarily by workers who reside in the project area vicinity. Therefore, construction of the project would not generate a permanent increase in population within the project area.

In terms of operational employees, because the future tenant is not yet known, the number of jobs that the project would generate cannot be precisely determined, but it can be estimated. For purposes of analysis, employment estimates are calculated using average employment density factors reported by SCAG. SCAG reports that for every 1,195 square feet of warehouse space in San Bernardino County, the average numbers of jobs supported is one employee (SCAG 2001). The proposed warehouse would be 53,665 square feet, and as such, the estimated number of employees required for operation would be approximately 41 people.

According to the SCAG Demographics and Growth Forecast, employment in the City is anticipated to grow from 7,200 employees in 2020 to 10,200 employees in 2045 (SCAG 2023). The project-related increase in employment would be minimal in comparison to the anticipated increase in the SCAG Demographics and Growth Forecast.

Additionally, as of March 2023, the California Employment Development Department found that the unemployment rate for Riverside-San Bernardino-Ontario Metropolitan Statistical Area, including the City of Highland, is at 4.4%, which is similar to the state average (4.8%) and higher than the national average (3.9%) for the same period (EDD 2023). Therefore, the project's temporary and permanent employment requirements could likely be met by the City's existing labor force without the need for people to relocate to the project region. The project would not stimulate population growth or a population concentration above what is assumed in local and regional land use plans. Therefore, impacts associated with population growth would be less than significant.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less-than-Significant Impact. The western portion of the project site is currently developed with one single-family residence. The remainder of the project site is vacant. Development of the proposed project would result in displacement of one existing household. Although it is speculative where the previous on-site residents would ultimately be relocated, assuming that they would be relocated in the project area, vacant housing opportunities are available within the City. The City has approximately 17,127 housing units with a vacancy rate of 2.6% (DOF 2022b). As such, there are approximately 445 vacant housing units in the City. Therefore, impacts associated with displacement of housing would be less than significant.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less-than-Significant Impact. The California Department of Forestry and Fire Protection (CAL FIRE) provides fire protection and emergency medical services to the City of Highland, including the project site, through a cooperative agreement that provides for CAL FIRE employees to staff City-owned facilities and apparatus (City of Highland 2006). The City of Highland also has available fire protection services from other area agencies such as the cities of Redlands and Yucaipa, and the U.S. Forest Service (City of Highland 2006). The City also participates in the Statewide Master Mutual Aid Agreement, which provides additional assistance from San Bernardino City and County Fire Departments and the San Manuel Fire Department (City of Highland 2006).

The closest fire station to the project is Highland Fire Department Station No. 541 (26974 Base Line Street), located approximately 1 mile north of the project site. Considering the proximity of the project site to Station No. 541, and given the fact that the project site is already located within CAL FIRE's service area, the project could be adequately served by the various fire departments without adversely effecting personnel-to-resident ratios, response times, or other performance objectives.

In addition, the project would not directly or indirectly induce population growth in the City. Although the project could potentially result in a slight, incremental increase in calls for service to the project site in comparison to the existing conditions, this increase is expected to be nominal and would not result in the need for new CAL FIRE facilities. Nonetheless, similar to other development projects in the City, the project applicant would still be required to pay their fair share of development impact fees to help offset incremental impacts to fire protection services. Therefore, impacts associated with CAL FIRE facilities and response times would be less than significant.

Police protection?

Less-than-Significant Impact. The City of Highland contracts with the San Bernardino County Sheriff's Department (SBSD) to provide police protection to the City, including the project site (City of Highland 2006). The SBSD has one patrol station in the City of Highland, located at 26985 East Base Line Street, approximately 1 mile north of the site.

The project would not directly or indirectly induce population growth in the City. Although the project would potentially result in a slight, incremental increase in calls to the SBSD for service to the project site in comparison to the existing conditions, this increase is expected to be nominal and would not result in the need for new SBSD facilities. In addition, the project site is already located within SBSD's service area and would not require an expansion of service area, which could otherwise result in longer response time. Overall, it is anticipated that the project would be adequately served by existing SBSD facilities, equipment, and personnel. Nonetheless, similar to other development projects in the City, the project applicant would still be required to pay their fair share of development impact fees to help offset incremental impacts to police protection. Therefore, impacts associated with SBSD facilities and response times would be less

than significant. In addition, the applicant will be required to follow the City of Highland's Development Impact Fee Ordinance (Fee Ordinance). The Fee Ordinance requires the applicant submit a fee payable to the City which will apply to the funding of public facilities, including law enforcement facilities. Therefore, impacts to police protection resources resulting from the proposed project would be less than significant.

Schools?

No Impact. The project site is located within the San Bernardino City Unified School District. It is not anticipated that people would relocate to the City as a result of the project, and an increase in school-age children requiring public education is not expected to occur as a result of the project. Nonetheless, all residential and non-residential development projects are subject to SB 50, which requires payment of mandatory impact fees to offset any impact to school services or facilities. The provisions of SB 50 are deemed to provide full and complete mitigation of school facilities impacts, notwithstanding any contrary provisions in CEQA or other state or local laws (Government Code Section 65996). In accordance with SB 50, the project applicant would pay its fair share of impacts fees based on the number/type of dwelling units. These impact fees are required of most residential, commercial, and industrial development projects in the City. Therefore, no impacts associated with school facilities would occur.

Parks?

No Impact. Given the lack of population growth as a result of the project, neither construction nor operation of the project would generate new residents to the extent that new or expanded park facilities would be required. Therefore, no impacts associated with park facilities would occur.

Other public facilities?

No Impact. The project would not directly or indirectly induce substantial population growth in the City. As such, it is unlikely that the project would increase the use of other public facilities such as libraries. Therefore, no impacts associated with libraries and other public facilities would occur.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a) ***Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

No Impact. The project would construct a new warehouse building and associated improvements. The project does not propose any residential uses and would not directly or indirectly result in a substantial and unplanned increase in population growth within the project area. As such, the project would not increase the use of existing neighborhood parks or regional parks in the City and surrounding area. Therefore, no impacts associated with the use of existing residential facilities would occur.

b) ***Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?***

No Impact. The project would construct a new warehouse building and associated improvements. The project does not propose any recreational facilities. As an industrial use, the project would not require the construction or expansion of recreational facilities. Therefore, no impacts associated with the construction of new or expansion of existing recreational facilities would occur.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☐	☒	☐

The following analysis is based, in part, on the Transportation Technical Memorandum prepared by Dudek in May 2023, included as Appendix J.

The following analysis was prepared consistent with the City of Highland Public Works Policies, Procedures and Standards (City of Highland 2022), and the San Bernardino Council of Governments Congestion Management Program (SANBAG 2016) to determine the level of analysis required based on the number of two-way peak hour trips generated by the project. Additionally, based on guidance from City of Highland staff, the City of San Bernardino's Traffic Impact Analysis Guidelines, were utilized to evaluate the project. Many of the VMT criteria listed in the City of San Bernardino's Guidelines are based on the Governor's Office of Planning and Research (OPR) Guidelines (OPR 2018).

Trip Generation Analysis

Trip generation estimates for the project are based on daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers Trip Generation, 11th Edition (ITE 2021), using the Warehousing land use (ITE Code 150).

Additionally, per the City's direction on a similar project, the warehouse (non-cold storage buildings) truck fleet mix from the South Coast Air Quality Management District's (SCAQMD) Warehouse Truck Trip Study Data Results and Usage (SCAQMD 2014) was used to estimate project-related truck traffic. Based on the SCAQMD data, passenger cars would account for 72.5% trips of the total trips generated by a warehouse facility, and truck trips would account for approximately 27.5% of the total trips. The total percentage of truck trips were further divided by 2-axle, 3-axle, and 4+ axle trucks per the SCAQMD study. These truck trips generated by the project were then converted to passenger car equivalent (PCE) trips by using the recommended PCE factors. PCE factors consistent with the County's Congestion Management Plan (CMP) guidelines. Table 3.17-1 presents the project's daily, and AM and PM peak hour trip generation estimates.

Table 3.17-1. Project Trip Generation Summary

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Rates and Trip Generation								
Warehousing[1]	per TSF	1.71	0.13	0.04	0.17	0.05	0.13	0.18
Land Use								
Proposed Project	53.665 TSF	92	7	2	9	3	7	10
Non-PCE Trips	Passenger Cars (72.5%)	67	5	2	7	2	5	7
	2-axle Trucks (4.6%)	25	2	0	2	1	2	3
	3-axle Trucks (5.7%)	5	0	0	0	0	0	0

Table 3.17-1. Project Trip Generation Summary

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
	4+axle Trucks (17.2%)	16	2	0	2	1	2	3
	Total Non-PCE Trips	**92**	**7**	**2**	**9**	**3**	**7**	**10**
Project Trip Generation PCE								
PCE Trips[3]	Passenger Cars (1.0 PCE)	67	5	2	7	2	5	7
	2-axle Trucks (1.5 PCE)	6	0	0	0	0	0	0
	3-axle Trucks (2.0 PCE)	10	0	0	0	0	0	0
	4+axle Trucks (3.0 PCE)	48	6	0	6	3	6	9
	Total PCE Trips	**131**	**11**	**2**	**13**	**5**	**11**	**16**

Source: Appendix J
Notes: TSF = thousand square feet, PCE = passenger car equivalent
Some of the totals may not match exactly due to rounding.
1 Trip rates from the Institute of Transportation Engineers, Trip Generation, 11th Edition, 2021. Land Use Code 150 – Warehousing.
2 Vehicle Mix and Percent from SCAQMD 2014.
3 Passenger Car Equivalent (PCE) factors per the San Bernardino County CMP (SANBAG 2016).

As shown in Table 3.17-1, the proposed project would generate approximately 92 daily trips, with 9 trips (7 inbound and 2 outbound) in the AM peak hour, and 10 trips (3 inbound and 7 outbound) in the PM peak hour. Adjusting for PCE, the trip generation is approximately 131 daily PCE trips, 13 AM PCE peak hour trips (11 inbound and 2 outbound) and 16 PM PCE peak hour trips (5 inbound and 11 outbound).

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less-than-Significant Impact. As detailed in the following text, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Roadway Facilities

The project is located within the jurisdiction of the City of Highland; therefore, the following consistency requirements would apply.

San Bernardino Associated Governments Congestion Management Plan

The City of Highland is located in San Bernardino County and therefore, the San Bernardino County Transportation Authority CMP applies to the City. To address the increasing public concern that traffic congestion is impacting the quality of life and economic vitality of the State of California, Proposition 111 created the CMP in 1990. The intent of the CMP is to provide the analytical basis for transportation decisions through the State Transportation Improvement Program process. In 1990, the San Bernardino Associated Governments was designated the Congestion Management Agency for San Bernardino County. Although implementation of the CMP was made voluntary by the passage of AB 2419 (Bowler 1996), the CMP requirement has been retained in San Bernardino County.

The LOS at each CMP location is monitored by local jurisdictions in order to implement the statutory requirements of the CMP. If LOS standards deteriorate, then local jurisdictions must prepare a deficiency plan to meet conformance standards outlined by the countywide plan. The local CMP requires that a transportation impact analysis report be prepared when a project's trip generation exceeds 250 two-way peak hour trips and expects to add at least 50 two-way peak hour trips to a State highway facility. For the CMP roadway system, the LOS standard shall be E for all segments and intersections except those designated LOS F, as listed in Table 2-1 of the CMP (SANBAG 2016).

Based on the project's trip generation estimates as described above, development of the proposed project would not be likely to result in degradation of the nearby CMP facilities due to the low volume of vehicular traffic (less than 250 peak hour trips, and less than 50 peak hour trips to a State highway facility, per the CMP). Therefore, impacts associated with project-related traffic on both the local and regional circulation system would be less than significant.

City of Highland

Traffic Study Guidelines

The City of Highland Traffic Study Guidelines are included in Chapter 9 of the City's Public Works Policies, Procedures and Standards Manual. Although changes in CEQA regarding SB 743 implementation shifts the primary metric for traffic analyses from LOS to VMT, the City has not yet adopted updated guidelines or thresholds related to VMT. As such, the City continues to require a Traffic Report to analyze the surrounding transportation network to evaluate the project's effect on the City's transportation infrastructure, and identify improvements required to maintain consistency with the City's LOS standards. Per the Traffic Study Guidelines, a Traffic Report would be required if a project exceeds the CMP thresholds (250 two-way peak hour trips) or generates more than 1,000 new two-way daily trips, or 100 two-way peak hour trips. Additionally, the City may require a Traffic Report if there are concerns regarding access, roadway structural impacts or level of service on intersection or roadway segments adjacent to the project. Trip generation estimates for the project are summarized above.

Based on the project's trip generation estimates as described above, development of the proposed project would likely not result in degradation of the nearest intersections of 5th Street/Central Avenue, Central Avenue/3rd Street, or other nearby intersections due to the low volume of vehicular traffic (less than 100 peak hour trips). However, the scoping of a focused Traffic Report is in progress with the City and is subject to review and approval by the City prior to project approval. By proceeding with scoping of a Traffic Report, the project complies with and would not conflict with the City's Traffic Study Guidelines. Therefore, impacts would be less than significant.

General Plan Circulation Element

The City of Highland adopted its most recent version of its Circulation Element of the General Plan in March 2006. The General Plan Circulation Element takes into consideration transit, bicycle, pedestrian, and other multimodal uses. The Circulation Element primarily utilizes volume-to-capacity LOS as a measurement in the rating of the performance of streets. The Circulation Element establishes the following LOS criteria:

- LOS D or better for major intersections in the City.

- LOS D is considered acceptable for peak operating periods.
- Any City of Highland intersection operating at LOS "E" or "F" is considered deficient.

As the proposed project is forecast to generate 13 AM peak hour trips and 16 PM peak hour trips (PCE-adjusted), the proposed project would not exceed the 250 two-way peak hour trip threshold for the preparation of a transportation impact analysis report per the CMP or the 100 two-way peak hour trip threshold for preparation of a Traffic Report per the City's Traffic Study Guidelines. Therefore, a transportation impact analysis report and further LOS analysis would not be required, unless requested by the City for a focused analysis of specific facilities as noted above.

Additionally, the project site is bordered by 5th Street to the north, Central Avenue is located to the east of the project site, and 3rd Street is located to the south of the project site. In the vicinity of the project, Central Avenue is not designated in the City's General Plan Circulation Element; however, north of 5th Street, Central Avenue is designated as a Major Highway. The project does not border Central Avenue, therefore, no improvements to Central Avenue is proposed.

5th Street is designated as a Major Highway per the City's General Plan Circulation Element. Per the Circulation Element, a Major Highway is generally designed as a four-lane roadway intended to provide nonlocal through trips and limited local access, with an 88-foot curb-to-curb width (with a 12-foot median), within a 104-foot ROW. The project would improve the pedestrian and ROW as required along 5th Street along the project's frontage. 5th Street is also designated as a truck route, with a posted speed limit of 45 miles per hour.

Therefore, impacts related to project consistency with the General Plan Circulation Element would be less than significant.

Pedestrian and Bicycle Facilities

Although the General Plan Circulation Element includes several bicycle classifications, the City of Highland Active Transportation Plan, adopted February 2021, provides a more comprehensive and updated overview of the City's current and future recommendations to enhance multi-modal facilities:

Class I Shared-Use Paths are paths completely separated from motor vehicle traffic used by people for walking and biking. These paths are typically located immediately adjacent and parallel to a roadway or in its own independent ROW, such as within a park or along a body of water.

Class II Bicycle Lanes are dedicated lanes for bicycle travel adjacent to traffic. A painted white line separates the bicycle lane from motor vehicle traffic.

Class IIB Buffered Bicycle Lane are dedicated lanes for bicycle travel separated from vehicle traffic by a painted buffer. The buffer provides additional comfort for users by providing space from motor vehicles or parked cars.

Class III Bicycle Routes are signed bike routes that people biking share with motor vehicles, which can include pavement markings.

Class IIIB Bicycle Boulevards are calm, local streets where bicycles have priority but share roadway space with motor vehicles. These boulevards include shared roadway bicycle markings on the pavement as well as traffic calming features such as speed humps and traffic diverters to keep these streets more comfortable for bicycles.

The only bicycle facilities in the vicinity of the project site are Class II Bike Lanes along 5th Street. The project is not expected to generate a significant amount of bicyclists and therefore would not affect the existing bicycle facilities. As such, the project would not conflict with existing or proposed bicycle facilities, and impacts would be less than significant.

Pedestrian facilities are provided along the frontage of the project site on both sides of 5th Street, with a continuous sidewalk on the southern side of 5th Street past Cunningham Street, before reaching Victoria Avenue, the sidewalk ends. If needed, the project would improve the curb and gutter, and pedestrian facilities where the project frontage exists, and follow all of the City's standard plans and guidelines for pedestrian facilities, curb and gutter, and drainage. Additionally, along both sides of Central Avenue, there are no pedestrian facilities, except for a portion of the west side of the road near the Central Avenue/5th Street intersection. The project is not expected to generate a significant amount of pedestrians and therefore, would not affect existing pedestrian facilities. As such, development of the project would not conflict with the existing pedestrian facilities, and impacts would be less than significant.

Transit Facilities

Omnitrans provides public transportation throughout the San Bernardino Valley and would serve as the nearest transit service to the project site. Omnitrans Route 15 is the nearest bus route that services the project site. Route 15 connects the Fontana Metrolink Transit Center, the San Bernardino Transit Center, and the Redlands Transit Center, and also provides stops within the City of Highland. The nearest bus stop to the project site is located at the intersection of 5th Street/Central Avenue, approximately 375-feet east of the project. Route 15 provides daily service with average headways of approximately one hour, with service beginning as early as 5:05 a.m. and ending as late at 9:45 p.m. on weekdays (Omnitrans 2023). Development of the proposed project would not conflict with the existing bus routes or bus stops. Therefore, impacts to transit would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less-than-Significant Impact. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. As shown in the analysis below, the project's impact due to conflict or inconsistency with Section 15064.3(b) would be less than significant.

On September 27, 2013, SB 743 was signed into law, which creates a process to change the way that transportation impacts are analyzed under CEQA. SB 743 required OPR to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Under the new transportation guidelines, LOS, or vehicle delay, will no longer be considered an environmental impact under CEQA. OPR recommended VMT as the most appropriate measure of project transportation impacts for land use projects and land use plans. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. The OPR Technical Advisory (OPR 2018) provides guidance and tools to properly carry out the principles within SB 743 and how to evaluate transportation impacts in CEQA.

Under these guidelines, VMT has been adopted as the most appropriate measure of transportation impacts under CEQA. The OPR's regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by July 1, 2020. The Updated CEQA Guidelines state that "generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts" and define VMT as "the amount and distance of automobile travel attributable to a project." It should be noted that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). Other relevant considerations may include the effects of the project on transit and non-motorized travel.

Although the project is located within the boundary of the City of Highland, the City has adopted the City of San Bernardino's CEQA Assessment – VMT Analysis Guidelines (SBCTA 2020), which were developed in coordination with the San Bernardino County Transportation Authority with support of agencies throughout the county. Therefore, the City of San Bernardino's CEQA Assessment – VMT Analysis Guidelines were utilized as the primary source of analysis of VMT and transportation-related impacts herein. The guidance developed is generally based upon the OPR Guidelines and thresholds.

The details of applicable screening and VMT analysis methodology are provided below. If the project does not meet the applicable screening criteria, then further analysis is required.

VMT Screening

As stated previously, the City of San Bernardino's VMT Guidelines were utilized within this memorandum as the primary source of analysis of VMT and transportation-related impacts. The VMT Guidelines suggest that land use projects may screen out of VMT impacts using a variety of factors. The following steps have been used in screening the project's VMT assessment, consistent with the applicable VMT guidelines for SB 743 compliance:

- **Transit Priority Area Screening:**
  - Projects located within one-half mile of a Transit Priority Area is defined as one-half mile area around an existing major transit stop[20] or an existing stop along a high quality transit corridor.[21]

The project is not within one-half mile of a Transit Priority Area, and therefore cannot be presumed to be less than significant under this threshold.

- **Low-VMT Area Screening:**
  - Low-VMT generating areas (as shown in the San Bernardino County Transportation Authority screening tool). A low VMT area is defined as an individual traffic analysis zone where total daily Origin/Destination VMT per service population is lower than the City average total daily Origin/Destination VMT per service population.

[20] Public Resources Code Section 21064.3 - 'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

[21] Public Resources Code, Section 21155 - For purposes of this section, a 'high-quality transit corridor' means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

The project is not located in a low-VMT generating area.

- **Local Serving Uses and Small Projects Presumed to have Less Than Significant Impact:**
  - Local parks
  - Day care centers
  - Local serving retail uses less than 50,000 square feet, including:
    - Gas Stations
    - Banks
    - Restaurants
    - Shopping Center
  - Student housing projects on or adjacent to college campuses
  - Local serving assembly uses (places of worship, community organizations)
  - Community institutions (public libraries, fire stations, local government)
  - Hotels (non-destination or resort; no banquet or special event space)
  - Affordable or supportive housing
  - Assisted living facilities
  - Senior housing
  - Local serving community colleges that are consistent with the assumptions noted in the Regional Transportation Plan/Sustainable Communities Strategy
  - Projects generating less than 110 daily vehicle trips
    - This generally corresponds to the following "typical" development potentials:
      - 11 single family housing units
      - 16 multi-family, condominiums, or townhouse units
      - 10,000 square feet of office
      - 15,000 square feet of light industrial
      - 63,000 square feet of warehousing
      - 79,000 square feet of high cube transload and short-term storage warehouse

    Based on the trip generation estimates provided in Table 3.17-1, the project would generate 92 daily trips (non-PCE). Since the project would generate fewer than 110 daily vehicle trips, the project impacts would be less than significant. Therefore, a detailed VMT analysis is not required, and the project would not conflict or be inconsistent with CEQA Guidelines Section 150645.3(b).

As shown in the screening analysis above, the project would be screened out based on its daily traffic generation being less than 110 daily trips. Therefore, further VMT analysis is not required and the project's impact to VMT can be presumed to be less than significant.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-than-Significant Impact. Access to the project site would be provided two driveways along 5th Street. The eastern driveway along 5th Street would serve as truck access driveways, with the western driveway along 5th Street dedicated to passenger vehicle access only. Passenger vehicles would also be permitted to utilize the eastern driveway. Both driveways would have full access (right-in/right-out and left-in/left-out) (Figure 12, Project Trip Assignment).

The project would construct frontage improvements of existing segments of 5th Street, and new driveways for project access.

During site plan review, the internal roadway and driveway widths, curb radii to facilitate passenger car and truck turning and movement would be reviewed, designed, and constructed per City standards and applicable street design requirements.

For on-site construction and any improvements required within the public ROW, the proposed project would be required to comply with standards set forth by the City to ensure that the project does not introduce an incompatible design feature that would impede traffic flow on roadway facilities. There would be no incompatible or hazardous uses associated with the proposed project and impacts would be less than significant.

d) Would the project result in inadequate emergency access?

Less-than-Significant Impact. Site access would be provided via two driveways along 5th Street. As stated above under threshold (c), the project would not increase roadway hazards. Emergency vehicle access will be available at all driveways and facilitated within the entirety of the project site. The project site would be accessible to emergency responders during construction and operation of the project. Therefore, impacts associated with an emergency response plan or emergency evacuation plan would be less than significant.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

The evaluation of potential impacts to Tribal Cultural Resources is based on the findings resulting from tribal consultation conducted by the City of Highland (City), as the lead agency, as well as the findings of the Archaeological Resources Assessment conducted by Dudek in 2023 (Appendix E). Background research conducted to inform this analyses include the results of a NAHC SLF search, ethnographic research, archival research and CHRIS database records search, and the results of formal tribal consultation completed by the lead agency, the City, pursuant to California Assembly Bill (AB) 52, a brief summary of which is provided in this section.

Existing Setting – Ethnohistoric

The history of the Native American communities prior to the mid-1700s has largely been reconstructed through later mission-period and early ethnographic accounts. The first records of the Native American inhabitants of the region come predominantly from European merchants, missionaries, military personnel, and explorers. These brief, and generally peripheral, accounts were prepared with the intent of furthering respective colonial and economic aims and were combined with observations of the landscape. They were not intended to be unbiased accounts regarding the cultural structures and community practices of the newly encountered cultural groups. The establishment of the missions in the region brought more extensive documentation of Native American communities, though these groups did not become the focus of formal and in-depth ethnographic study until the early twentieth century (Bean and Shipek 1978; Boscana 1846; Harrington 1934; Laylander 2000; Sparkman 1908; White 1963). The principal intent of these researchers was to record the precontact and culturally specific practices, ideologies, and languages that had survived the destabilizing effects of missionization and colonialism. This research, often understood as “salvage ethnography,” was driven by the understanding that traditional knowledge was being lost due to the impacts of modernization and cultural assimilation. Alfred Kroeber applied his “memory culture” approach (Lightfoot 2005, p. 32) by recording languages and oral histories within the region. Ethnographic research by Dubois, Kroeber, Harrington, Spier, and others during the early twentieth century seemed to indicate that traditional cultural practices and beliefs survived among local Native American communities.

It is important to note that even though there were many informants for these early ethnographies who were able to provide information from personal experiences about native life before the Europeans, a significantly large proportion of these informants were born after 1850 (Heizer and Nissen 1973); therefore, the documentation of precontact, aboriginal culture was being increasingly supplied by individuals born in California after considerable contact with Europeans. As Heizer (1978) stated, this is an important issue to note when examining these

ethnographies, since considerable culture change had undoubtedly occurred by 1850 among the Native American survivors of California.

Based on ethnographic information, it is believed that at least 88 different languages were spoken from Baja California Sur to the southern Oregon state border at the time of Spanish contact (Johnson and Lorenz 2006, p. 34). The distribution of recorded Native American languages has been dispersed as a geographic mosaic across California through six primary language families (Golla 2007).

Golla contended that one can interpret the amount of variability within specific language groups as being associated with the relative "time depth" of the speaking populations (Golla 2007: 80). A large amount of variation within the language of a group represents a greater time depth than a group's language with less internal diversity. One method that he has employed is by drawing comparisons with historically documented changes in Germanic and Romantic language groups. Golla observed that the "absolute chronology of the internal diversification within a language family" can be correlated with archaeological dates (2007: 71). This type of interpretation is modeled on concepts of genetic drift and gene flows that are associated with migration and population isolation in the biological sciences.

The tribes of this area have traditionally spoken Takic languages that may be assigned to the larger Uto–Aztecan family (Golla 2007: 74). These groups include the Gabrielino, Cahuilla, and Serrano. Golla interpreted the amount of internal diversity within these language-speaking communities to reflect a time depth of approximately 2,000 years. Other researchers have contended that Takic may have diverged from Uto–Aztecan ca. 2600 BC–AD 1, which was later followed by the diversification within the Takic speaking tribes, occurring approximately 1500 BC–AD 1000 (Laylander 2000).

Serrano

Traditionally, the Serrano lived in an area east of the Gabrielino and north of the Cahuilla, near present-day western San Bernardino County and northeastern Los Angeles County (Laylander 2000). The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet above mean sea level. Their territory extended west along the northern slope of the San Gabriel Mountains, east as far as Twentynine Palms, north along the Mojave River, and south to the San Jacinto area. Kroeber (1925) divided the Serrano into four distinct groups within the western Mojave Desert: the Kitanemuk, Tataviam, Serrano, and Vanyume. Each group held a distinct territory within the region (Kroeber 1925). According to Bean and Smith (1978a: 570), "the Serrano resided in an area that extended east of the Cajon Pass, located in the San Bernardino Mountains, to Twenty-nine Palms, the north foothills of the San Bernardino Mountains and south to include portions of the Yucaipa Valley."

Serrano social organization was based on patrilineal and patrilocal lineages. Exogamy rules required that a man could not marry a woman related to them within five generations. Women moved to their husband's village, but kept their identity as a member of their natal lineage (Cultural Systems Research 2005:15).

The Serrano were mainly hunters and gatherers who occasionally fished. Game hunted included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetable staples consisted of acorns, piñon nuts, bulbs and tubers, shoots and roots, berries, mesquite, barrel cacti, and Joshua tree (Bean and Smith 1978a; Cultural Systems Research 2005: 15). A variety of materials was used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. Shells, wood, bone, stone, plant materials, and animal skins and feathers were used for making baskets, pottery, blankets, mats, nets, bags and pouches, cordage, awls, bows, arrows, drills, stone pipes, musical instruments, and clothing (Bean and Smith 1978a).

The majority of the Serrano lived in small villages, close to sources of fresh water (Benedict 1924). Houses and ramadas were round, dome-shaped, and constructed of poles covered with bark and tule mats (Benedict 1924; Kroeber 1925). The Serrano also had sweat houses and ceremonial houses for religious activities. Further, according to Benedict (1924), a typical Serrano settlement was a village with multiple small satellite camps surrounding it. Most Serrano villages also had a ceremonial house used as a religious center. Other structures within the village might include granaries and sweathouses (Bean and Smith 1978a). According to DeBarros (2004), one of the more prominent Serrano villages was called Guapiabit, and it was located in Summit Valley.

Gabrieleño/Tongva

The archaeological record indicates that the Gabrieleño arrived in the Los Angeles Basin around 500 B.C. Surrounding native groups included the Chumash and Tataviam to the northwest, the Serrano and Cahuilla to the northeast, and the Juaneño and Luiseño to the southeast.

The names by which Native Americans identified themselves have, for the most part, been lost and replaced by those derived by the Spanish people administering the local Missions. These names were not necessarily representative of a specific ethnic or tribal group, and traditional tribal names are unknown in the post-Contact period. The name “Gabrieliño” or “Gabrieleño” was first established by the Spanish from the San Gabriel Mission and included people from the established Gabrielino area as well as other social groups (Bean and Smith 1978b; Kroeber 1925). Some contemporary Gabrieliño identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and refer to themselves as the Tongva (King 1994: 12). This term is used in the remainder of this section in addition to the name “Gabrieleño” to refer to the precontact inhabitants of the Los Angeles Basin and their descendants.

The Gabrieleño/Tongva established large, permanent villages along rivers and streams, and lived in sheltered areas along the coast. Gabrieleño/Tongva lands included the greater Los Angeles Basin and three Channel Islands—San Clemente, San Nicolas, and Santa Catalina—and stretched from the foothills of the San Gabriel Mountains to the Pacific Ocean. Archaeological sites composed of villages with various sized structures have been identified through the Los Angeles Basin. A total tribal population has been estimated of at least 5,000 (Bean and Smith 1978b: 540), but recent ethnohistoric work suggests a number approaching 10,000 seems more likely (O’Neil 2002). At least one Gabrieleño/Tongva village was located near Glendora: Ashuukshanga (also Azucsagna), located near the mouth of the San Gabriel River in present-day Azusa (McCawley 1996: 44). Within the permanent village sites, the Gabrieleño/Tongva constructed large, circular, domed houses made of willow poles thatched with tule, each of which could hold upward of 50 people (Bean and Smith 1978b). Other structures constructed throughout the villages probably served as sweathouses, menstrual huts, ceremonial enclosures, and communal granaries. Cleared fields for races and games, such as lacrosse and pole throwing, were created adjacent to Tongva villages (McCawley 1996).

The Gabrieleño/Tongva subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, and deserts as well as riparian, estuarine, and open and rocky coastal eco-niches. Like most native Californians, acorns were the staple food (an established industry by the time of the early Intermediate Horizon). Acorns were supplemented by the roots, leaves, seeds, and fruits of a variety of flora (e.g., islay, cactus, yucca, sages, and agave). Freshwater and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith 1978b, p. 546; Kroeber 1925, pp. 631–632; McCawley 1996, pp. 119–123, 128–131).

The Gabrieleño/Tongva participated in an extensive exchange network, trading coastal goods for inland resources. They exported Santa Catalina Island steatite products, roots, seal and otter skins, fish and shellfish, red ochre, and lead ore to neighboring tribes, as well as to people as far away as the Colorado River. In exchange, they received ceramic goods, deerskin shirts, obsidian, acorns, and other items. This burgeoning trade was facilitated by the use of craft specialists, a standard medium of exchange (Olivella bead currency), and the regular destruction of valuables in ceremonies, which maintained a high demand for these goods (McCawley 1996: 112–115).

Assembly Bill 52

AB 52 of 2014 amended Public Resources Code Section 5097.94 and added Public Resources Code Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that tribal cultural resources must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. Public Resources Code Section 21074 describes a tribal cultural resource as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A tribal cultural resource (TCR) is either:

- On the CRHR or a local historic register;
- Eligible for the CRHR or a local historic register; or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report by contacting those tribal groups who have previously provided formal written request for notification of projects under the agency's jurisdiction.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on TCRs should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the Public Resources Code, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to TCRs, the consultation shall include those topics (PRC Section 21080.3.2[a]). Finally, the environmental document, for which the tribal consultation is focused, and the mitigation monitoring and reporting program (where applicable), developed in consideration of information provided by tribes during the formal consultation process, shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

Assembly Bill 52 Consultation

The project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to TCRs as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the proposed project. All NAHC-listed California Native American Tribal representatives that have requested project notification pursuant to AB 52 were sent letters by the City on March 30, 2023, via United States Postal Service (USPS) mailing. The notification letters contained a project description, outline of AB 52 timing, an invitation to consult, a project

site plan, and contact information for the appropriate lead agency representative. Table 3.18-1 summarizes the results of the AB 52 process for the project.

Table 3.18-1. Assembly Bill 52 Native American Heritage Commission–Listed Native American Contacts

Native American Tribal Representatives	Response Received
Andrew Salas, Chairman Gabrieleño Band of Mission Indians – Kizh Nation	No response has been received to date.
Joseph Ontiveros, Cultural Resource Director Soboba Band of Luiseño Indians	No response has been received to date.
Ryan Nordness Cultural Resources Management Department Yuhaaviatam of San Manuel Nation (YSMN)	**May 4, 2023**: An email response was received by City Planner, Angela Tafolla, from Ryan Nordness, Cultural Resource Analyst for the YSMN. Mr. Nordness stated that the proposed project area is within Serrano ancestral territory, however, due to the nature and location of the project and the CRM Department's present knowledge, the YSMN does not have any concerns with the project as planned at this time. Mr. Nordness then provided mitigation language and requested that it be included for the project permit and planning. Mr. Nordness also requested to be provided a final copy of the project permit and plan to review the included language. To date, no additional responses have been received by the City from the YSMN and the City has formally concluded consultation with the YSMN.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

Less-than-Significant Impact with Mitigation Incorporated. As discussed in Section 3.5, a CHRIS records search and NAHC SLF search were conducted for the project site. The SLF was completed with positive results; however, it should be noted that the results relate to the general regional area do not necessarily equate to the existence of resources within the specific area occupied by the proposed project site. The results of the CHRIS records search identified 20 historic built environment resources within the records search area. No prehistoric resources were identified as a result of the records search. South Central Coastal Information Center records also indicate that that 12 previous cultural resources investigations have been conducted within one-half mile of the proposed project site between 1984 and 2014. One previous study (report SB-07309) completed in 2011 (Tang and Hogan 2011) addressed the entirety (100 percent) of the present proposed project site. The 2011 study consisted of a background research and a literature search, tribal consultation, outreach to local historical societies, and a field survey. No cultural resources were identified within the proposed project site as a result of the 2011 study.

Additionally, as discussed in Section 3.5, based on the intensive-level archaeological pedestrian survey and research conducted as part of the Archaeological Resource Assessment (Appendix D), it was determined that the potential to encounter intact deposits containing archaeological resources within soils from current grade to between 1 and 2 feet below ground surface is unlikely. However, the potential for intact cultural deposits to exist within native soils (below between 1 and 2 feet bgs) to the proposed depths of disturbance is unknown. Given that City Creek and associated wash/creek bed historically overlapped the western portion of the proposed Project site, there is a potential for yet unidentified archaeological resource deposits within the proposed Project site to be buried by alluvial and flood deposits. Additionally, the City notified California Native American Tribal representatives who are traditionally or culturally affiliated with the geographic area of the proposed project area pursuant to AB 52. One response was received from the YSMN. No tribal cultural resources were identified on the project site as a result of AB 52 consultation between the City and the YSMN. Therefore, the proposed project would not adversely affect known TCRs that are listed or eligible for listing in the state or local register. No mitigation is required.

b) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Less-than-Significant Impact with Mitigation Incorporated. The project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to tribal cultural resources as part of the CEQA process and requires lead agencies to provide notification of proposed projects to California Native American Tribal representatives that have requested such notifications.

As discussed above, the YSMN consulted with the City under AB 52, and stated that due to the nature and location of the project and the CRM Department's present knowledge, the YSMN does not have any concerns with the project as planned at this time. Nonetheless, the YSMN requested that mitigation measures be included for the project permit and planning.

As discussed in Section 3.5 Cultural Resources, no prehistoric resources or resources of Native American origin have been identified within the project site or records search radius through the CHRIS records search at the SCCIC. Although the NAHC SLF search results were positive, it is important to note that Sacred Land Files maintained by the NAHC represent a curation of "ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California" (nahc.gov 2021) provided by Tribal entities and Native American representatives. For various reasons, Tribal entities and Native American representatives do no not always report sacred lands or TCRs to the NAHC; as such, the NAHC's SLF is not necessarily a comprehensive list of known TCRs and searches of the SLF must be considered in concert with other research and not used as a sole source of information regarding the presence of TCRs. Additionally, results of the SLF provided relate to the general regional area within and surrounding the project site and don't necessarily equate to the existence of resources within the specific area occupied by the project site. As such, there are no resources in the project site, as presented during AB 52 consultation, that have been determined by the City to be significant pursuant to the criteria set forth in Public Resources Code Section 5020.1(k).

TCRs have not been identified through tribal consultation under AB 52, the City, acting as lead agency, has not identified any TCRs within the project site that would warrant discretionary designation of a resource

as a TCR. However, the City, in an abundance of caution, has considered the information provided for review through consultation and determined to implement mitigation measures to ensure if unknown subsurface tribal cultural resources were inadvertently encountered, they would be addressed properly. Therefore, in addition to the cultural resources mitigation measures (MM-CUL-1, MM-CUL-2, and MM-CUL-3), tribal cultural resources mitigation measure MM-TCR-1 has been included to ensure retention, by the applicant, of a YSMN Native American monitor to observe ground disturbing activities at the election of the YSMN cultural resources manager. As stipulated within mitigation prepared for Cultural Resources - appropriate handling of human remains will be completed in compliance with Public Resources Code 5097.98 and Health and Safety Code 7050.5. This includes establishing a process of respectful treatment through discussions with the identified MLD. Implementation of MM-TCR-1 would ensure that potential construction impacts related to an unknown tribal cultural resource would be reduced to a level less than significant.

MM-TCR-1 Tribal Cultural Resources The Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed in MM-CUL-3, in the case of a discovery of pre-contact and/or historic-era cultural resources of or potentially of Native American origin. The Tribe shall be provided relevant information regarding the findings of the archaeological assessment as well recommendations regarding further study and treatment, if necessary. The Tribal shall be provided the opportunity to consult with the qualified archaeologist regarding the findings and recommendations. Should the resource be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan (Plan) to include a research design, if data recovery is determined necessary, shall be created by the retained archaeologist for the project. A draft of the Plan shall be provided to YSMN for review and comment, prior to finalization of the Plan. This Plan shall allow for a YSMN Native American monitor to observe ground disturbing activities at the election of the YSMN cultural resources manager. Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and the City of Highland for dissemination to YSMN. The City and/or applicant shall, in good faith, consult with YSMN throughout the life of the project.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, waste water treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a) Would the project require or result in the relocation or construction of new or expanded water, waste water treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-Significant Impact. The proposed project would involve construction of a warehouse building, as well as paved parking areas and landscape areas. The project site currently consists of an existing residential home, garage structures, and vacant land. As such, the proposed project would increase demand for water supply compared to existing land uses.

As part of the project, utility service lines, including those for water, stormwater drainage, electric power, natural gas, and telecommunications services, would be extended from their current locations in the public ROW surrounding the project site for operation of the proposed warehouse building. The proposed project would connect to existing 30-inch-diameter water line within 5th Street, as well as various underground pipes to convey stormwater to a 72-inch corrugated metal pipe infiltration system.

Given that the activity of connecting utilities from their current locations within the public right-of-way would require ground disturbance and the use of heavy machinery associated with trenching, the connection of these utility services to the proposed warehouse building could potentially result in environmental effects. However, the extension of these utility lines is part of the proposed project analyzed herein. As such, any potential environmental impacts related to these components of the project are already accounted for in this IS/MND as part of the impact assessment conducted for the entirety of the project. No adverse physical effects beyond those already disclosed in this IS/MND would occur as a result of implementation of the project's utility system connections. Additionally, the project

would constitute a nominal increase in utility usage, which has already been accounted for in growth projections for the City and by each utility provider. No modifications to utility infrastructure would be necessary outside of the immediate project area. As such, impacts associated with the construction or expansion of utility line connections would be less than significant.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-Significant Impact. Domestic water would be provided to the project site by the EVWD. The EVWD provides domestic water for the City and for portions of both the City and County of San Bernardino. The primary water source for EVWD is groundwater from the Bunker Hill Basin. The Bunker Hill Basin has the capacity to provide 70,000 acre-foot per year of water from groundwater and surface water sources (City of San Bernardino 2005). The San Bernardino Valley Regional Urban Water Management Plan contains existing and projected water supplies for the region, including the EVWD. Table 3.19-1 shows projected water supplies during single- and multiple-dry year conditions, which represents "worst-case" conditions during extended periods of drought when supplies would be reduced.

Table 3.19-1. Projected Multiple Dry Year Supply and Demand Comparison (Acre-Feet)

Multiple Dry Year Scenario	2025	2030	2035	2040	2045
First Year					
Supply Totals	26,676	26,676	26,676	52,972	52,972
Demand Totals	26,676	26,676	26,676	52,972	52,972
Difference (supply minus demand)	0	0	0	0	0
Second Year					
Supply Totals	26,676	26,676	26,676	52,972	52,972
Demand Totals	26,676	26,676	26,676	52,972	52,972
Difference (supply minus demand)	0	0	0	0	0
Third Year					
Supply Totals	26,676	26,676	26,676	52,972	52,972
Demand Totals	26,676	26,676	26,676	52,972	52,972
Difference (supply minus demand)	0	0	0	0	0
Fourth Year					
Supply Totals	26,676	26,676	26,676	52,972	52,972
Demand Totals	26,676	26,676	26,676	52,972	52,972
Difference (supply minus demand)	0	0	0	0	0
Fifth Year					
Supply Totals	26,676	26,676	26,676	52,972	52,972
Demand Totals	26,676	26,676	26,676	52,972	52,972
Difference (supply minus demand)	0	0	0	0	0

Source: SBVMWD 2021.

Table 3.19-1 demonstrates that EVWD anticipates adequate supplies for years 2025 to 2045 under multiple dry year conditions based on current land use projections. However, in the unlikely event of a

drought, natural disaster such as earthquake, a regional power outage, the San Bernardino Valley Municipal Water District has prepared a water shortage contingency plan for the region (SBVMWD 2021). This plan provides specific actions that should be taken to ensure critical water needs of the region are met during a period in which water supplies are cut by 50%. Based on the future and existing capacity, and water management measures, it is anticipated there are sufficient water supplies to serve the proposed project. Therefore, impacts associated with water supplies would be less than significant.

c) Would the project result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less-than-Significant Impact. Highland's sewer system is maintained by the EVWD, which has joint powers with the City of San Bernardino to accept all sewage generated within the EVWD's boundaries. The project would coordinate with the EVWD to meet sewer requirements established by the DHS to ensure the continued sewer services in Highland, which has the potential to be impacted with continued growth within the City. However, water recycling programs, such as the project's corrugated metal pipe infiltration system, assist in reducing the amount of wastewater conveyed to the sewage system. The sewage from Highland is treated at the San Bernardino WRP, operated by the San Bernardino City Municipal Water District (City of Highland 2006). The WRP treats residential and industrial wastewater generated in the City of San Bernardino, the City of Loma Linda, and EVWD (City of San Bernardino 2005). The WRP processes an average sewage flow of approximately 26 to 27 million gallons per day and has a total sewage capacity of 33 million gallons per day (City of Highland 2006).

SBMWD forecasts adequate capacity to treat wastewater in the upcoming years. As noted above in Section 3.19(b), the proposed project is consistent with the existing zoning designation established by the City. As such, anticipated wastewater generation for an industrial use has already been accounted for in growth projections for the City. Existing infrastructure is adequate to convey wastewater without requiring the expansion of the facilities. In addition, the project applicant would pay applicable connection fees and monthly charges which offset the need for incremental wastewater conveyance and treatment. Therefore, impacts associated with wastewater capacities would be less than significant.

In addition, EVWD has constructed a new wastewater treatment plan, Sterling Natural Resources Plan, at the intersection of Del Rosa Avenue and 5th Street. This new facility will provide improved and expanded service to all sewer clients in Highland.

d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. Solid waste generated in the City is collected and transported by the City's contract waste hauler, Burrtec Waste Industries (Burrtec) (City of Highland 2018). Solid waste from demolition and construction would be collected and sent to the East Valley Transfer and Recycling Materials Recovery Facility, located at 1150 and 1250 S. Tippecanoe Avenue, San Bernardino, California 92408, where it is separated from recyclable materials. Solid waste is then shipped to the Mid-Valley Sanitary Landfill at 2390 N. Adler Avenue in the City of Rialto. The California Department of Resources Recycling and Recovery (CalRecycle) publishes solid waste generation rates based on land use types. According to CalRecycle, manufacturing/warehouse uses generate 1.42 pounds per 100 square feet per day (CalRecycle n.d.). Based

on these generation rates, construction of the proposed 54,330-square-foot warehouse building could generate solid waste at a rate of approximately 0.38 tons of solid waste per day.[22]

The Mid-Valley Sanitary Landfill currently has a daily permitted throughput of 7,500 tons a day and a remaining capacity of 61,219,377 cubic yards (CalRecycle 2019). As a result, solid waste generated by the proposed project would represent a nominal percentage of the collective maximum daily throughput permitted for this landfill. Therefore, impacts associated with permitted landfill capacity would be less than significant.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-Significant Impact. All collection, transportation, and disposal of solid waste generated by the project would comply with all applicable federal, state, and local statutes and regulations. The City of Highland contracts Burrtec for the residential and commercial refuse collection program, which is designed to efficiently collect trash, recyclables, and green waste, and to assist the City in meeting mandated diversion goals established by the State of California. Solid waste is disposed of at the Colton, Mid-Valley, and San Timoteo landfills (City of Highland 2006).

Waste from construction activities, including demolition and construction, would comply with the City's requirement to submit and obtain an approved construction waste diversion plan to help divert construction and demolition waste from landfills, as outlined in Section 8.12.285 of the City's Municipal Code, and also to comply with mandates of CalRecycle. The City diversion requirement, as outlined in Section 16.40.400 of the City's Municipal Code, is 50%, which means that projects that involve construction and demolition (such as the proposed project), are required to divert 50% of the construction and demolition waste tonnage at a project site from landfills.

Burrtec operated five material recovery facilities in Southern California, which sort and process recyclables; the remaining waste is then taken to the nearby Mid-Valley Sanitary Landfill (Burrtec n.d.). As of the most recent capacity inspection completed in 2019, the remaining capacity at Mid-Valley Sanitary Landfill currently has a maximum permitted throughput of 7,500 tons per day and a remaining capacity of 61,219,377cubic yards (CalRecycle 2019).

As required by existing regulations, any hazardous materials collected on the project site during demolition, construction, or operational activities would be transported and disposed of by a permitted and licensed hazardous materials service provider at a facility permitted to accept such hazardous materials. Therefore, impacts associated with permitted landfill capacity and solid waste statutes and regulations would be less than significant.

[22] This estimate does not account for diversion of recyclables from the solid waste stream and, thus, should be considered a conservative projection.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The City of Highland has an Emergency Plan to ensure the most effective and economical allocation of resources for the maximum benefit and protection of the City in times of emergency. No revisions to this plan would occur as a result of the project. The project does not propose any changes to the geometry of evacuation route roadways to the extent that these roadways' ability to serve as emergency evacuation routes would be compromised. In addition, the project site is currently comprised of vacant and developed land and is located in a developed portion of the City. The City's General Plan outlines major evacuation routes within the San Bernardino Valley as I-10, 15, and 215, and State Highway 30, 31, 60, 66, and 71 (City of Highland 2006). In the case of an emergency, 5th Street and Central Avenue may be used as evacuation routes, but these roads are not explicitly outlined as evacuation routes by the City. Therefore, no impacts associated with an emergency response or evacuation plan would occur.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The project site is not located within a Fire Hazard Severity Zone or a Very High Fire Hazard Severity Zone according to the Local Responsibility and State Responsibility Area maps by CAL FIRE (CAL FIRE 2007, 2022). In addition, the project site is currently partially developed and located within a developed portion of the City. Further, the project site is relatively flat and contains only limited amounts of ornamental vegetation associated with existing landscaping and does not contain extensive amounts of vegetation or wildfire fuel. Therefore, it is not anticipated that the project, due to slope, prevailing winds, and other factors, would exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Thus, the project would not expose people or structures to significant risk involving wildfires, exacerbate wildfire risks, or otherwise result in wildfire-related impacts. Therefore, no impacts associated with wildfire would occur.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The project site is not located within a Fire Hazard Severity Zone or a Very High Fire Hazard Severity Zone according to the Local Responsibility and State Responsibility Area maps by CAL FIRE (CAL FIRE 2007, 2022). In addition, the project site is currently developed and located within a developed portion of the City that is not prone to wind hazard (City of Highland 2022). The project would construct surface parking lots, new internal circulation roadways, and infrastructure for the proposed development. It is not anticipated that installation or maintenance of internal driveways would exacerbate fire risk, as the driveways would be surrounded by developed land. Further, the project site is in a predominately developed area and would connect to existing utilities. The project would not require installation or maintenance of other associated infrastructure such as fuel breaks, power lines, or other utilities that would exacerbate fire risk. As such, the project would not expose people or structures to significant risk involving wildland fires, exacerbate wildfire risks, or otherwise result in wildfire-related impacts. Therefore, no impacts associated with wildfire would occur.

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The project site is not located within a Fire Hazard Severity Zone or a Very High Fire Hazard Severity Zone according to the Local Responsibility and State Responsibility Area maps by CAL FIRE (CAL FIRE 2007, 2022). As discussed in Section 3.7, Geology and Soils, and Section 3.10, Hydrology and Water Quality, the project would not result in significant risks associated with flooding, landslides, runoff, or drainage changes, and the project does not propose the use of fire (such as for a controlled vegetation burn) that would result in post-fire instability. Further, the project site is located within a developed portion of the City that is not susceptible to wildland fires, given its considerable distance from open, natural areas. Thus, the project would not expose people or structures to significant risk involving wildland fires, exacerbate wildfire risks, or otherwise result in wildfire-related impacts. Therefore, no impacts with wildfire would occur.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

a) ***Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?***

Less-than-Significant with Mitigation Incorporated. As described throughout this IS/MND, with the incorporation of the identified mitigation measures, the project would not degrade the quality of the environment, would not substantially reduce the habitats of fish or wildlife species, would not cause a fish or wildlife population to drop below self-sustaining levels, would not threaten to eliminate a plant or animal, and would not eliminate important examples of major periods of California history or prehistory. Therefore, impacts would be less than significant with mitigation incorporated.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less-than-Significant with Mitigation Incorporated. When evaluating cumulative impacts, it is important to remain consistent with Section 15064(h) of the CEQA Guidelines, which states that an EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Alternatively, a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable through mitigation measures set forth in an MND or if the project will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

The proposed project would potentially result in project-related air quality, biological, cultural and tribal cultural, and geological impacts that could be potentially significant without the incorporation of mitigation. Thus, when coupled with air quality, biological, cultural resources and TCRs, and geological impacts related to the implementation of other related projects throughout the broader project area, the project would potentially result in cumulative-level impacts if these significant impacts are left unmitigated.

However, with the incorporation of mitigation identified herein, the project's impacts to air quality, biological resources, cultural resources and TCRs, and geological resources would be reduced to less-than-significant levels and would not considerably contribute to cumulative impacts in the greater project region. In addition, these other related projects would presumably be bound by their applicable lead agency to (1) comply with all applicable federal, state, and local regulatory requirements; and (2) incorporate all feasible mitigation measures, consistent with CEQA, to further ensure that their potentially cumulative impacts would be reduced to less-than-significant levels.

Although cumulative impacts are always possible, the project, by incorporating all mitigation measures outlined herein, would reduce its contribution to any such cumulative impacts to less than cumulatively considerable; therefore, the project would result in individually limited, but not cumulatively considerable, less-than-significant impacts with mitigation incorporated.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less-than-Significant with Mitigation Incorporated. As evaluated throughout this IS/MND, with incorporation of mitigation identified herein, all environmental impacts associated with the project would be reduced to less-than-significant levels. Thus, the project would not directly or indirectly cause substantial adverse effects on human beings. Impacts would be less than significant with mitigation incorporated.

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4.2 List of Preparers

Dudek

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Michael Williams – Paleontologist
Michael Greene – Noise Specialist
Carson Wong – Noise Specialist
Sabita Tewani – Transportation Specialist
Kelsey Bacon – GIS Specialist



SOURCE: ESRI 2020

DUDEK

0 500 1,000 Feet

FIGURE 1

Project Location

5th Street and Central Avenue Warehouse Project

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SOURCE: ESRI 2020; San Bernardino County 2023

DUDEK

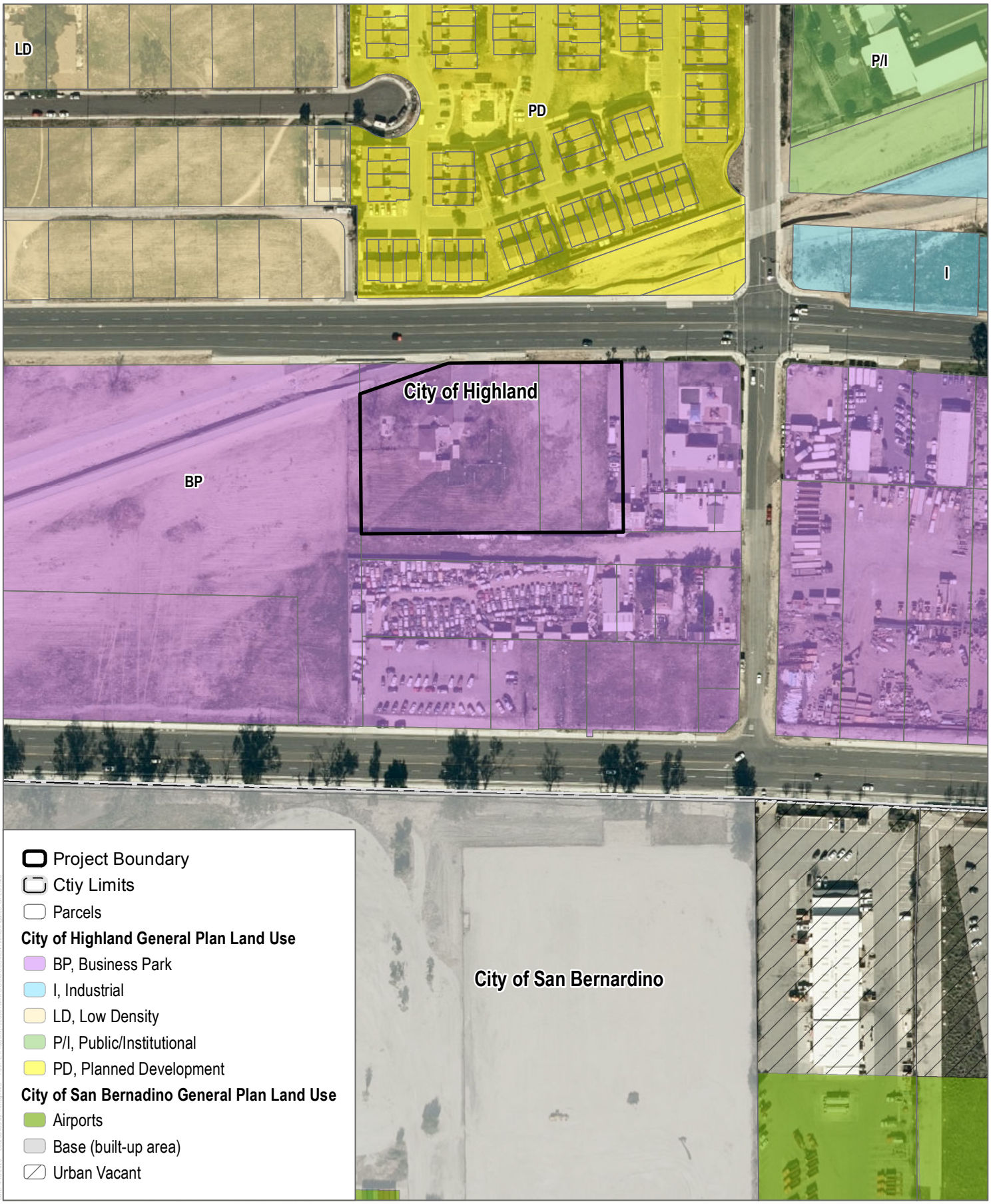
0 100 200 Feet

FIGURE 2

Aerial Overview

5th Street and Central Avenue Warehouse Project

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SOURCE: ESRI 2020; San Bernardino County 2012, 2023; City of Highland 2014

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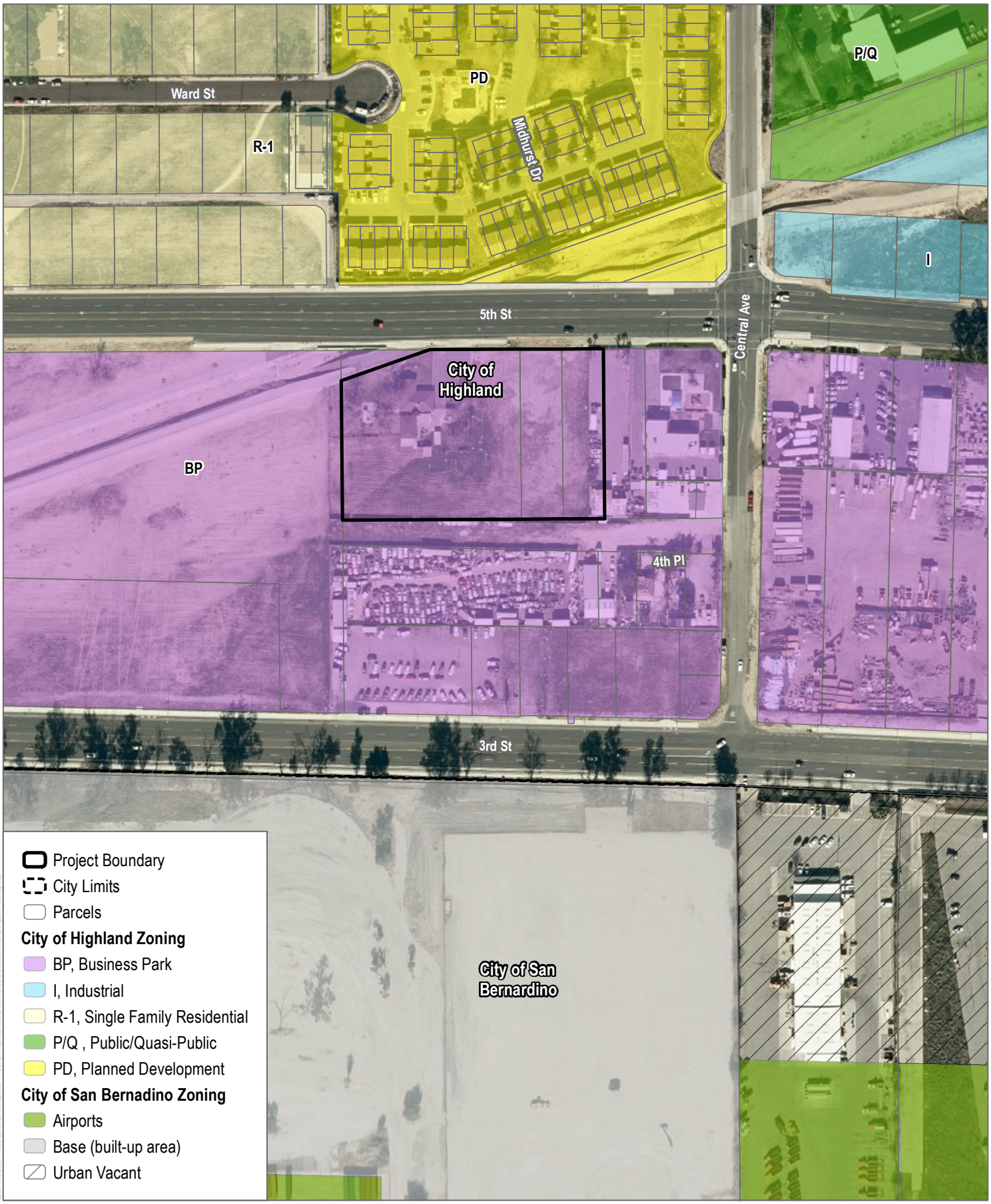
0 100 200 Feet

FIGURE 3

General Plan Land Use

5th Street and Central Avenue Warehouse Project

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SOURCE: ESRI 2020; San Bernardino County 2012, 2023; City of Highland 2014

DUDEK

0 100 200 Feet
0 25 50 Meters
1:2,400

FIGURE 4

Zoning

5th Street and Central Avenue Warehouse Project

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SOURCE: Esri World Imagery, City of San Bernadino 2012, City of Highland 2014

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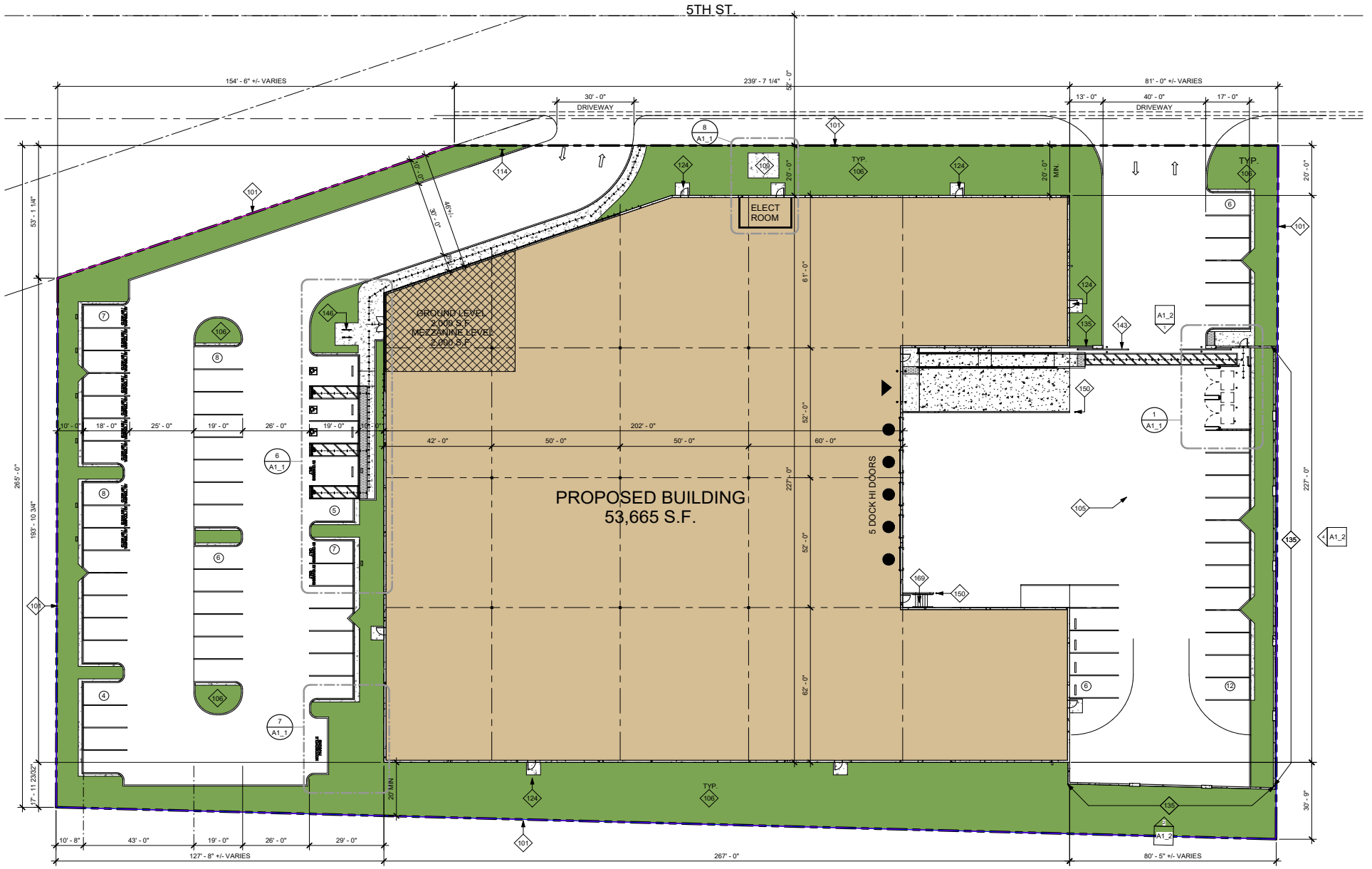
0 1,000 2,000 Feet

FIGURE 5

Airport Gateway Specific Plan

5th Street and Central Avenue Warehouse Project

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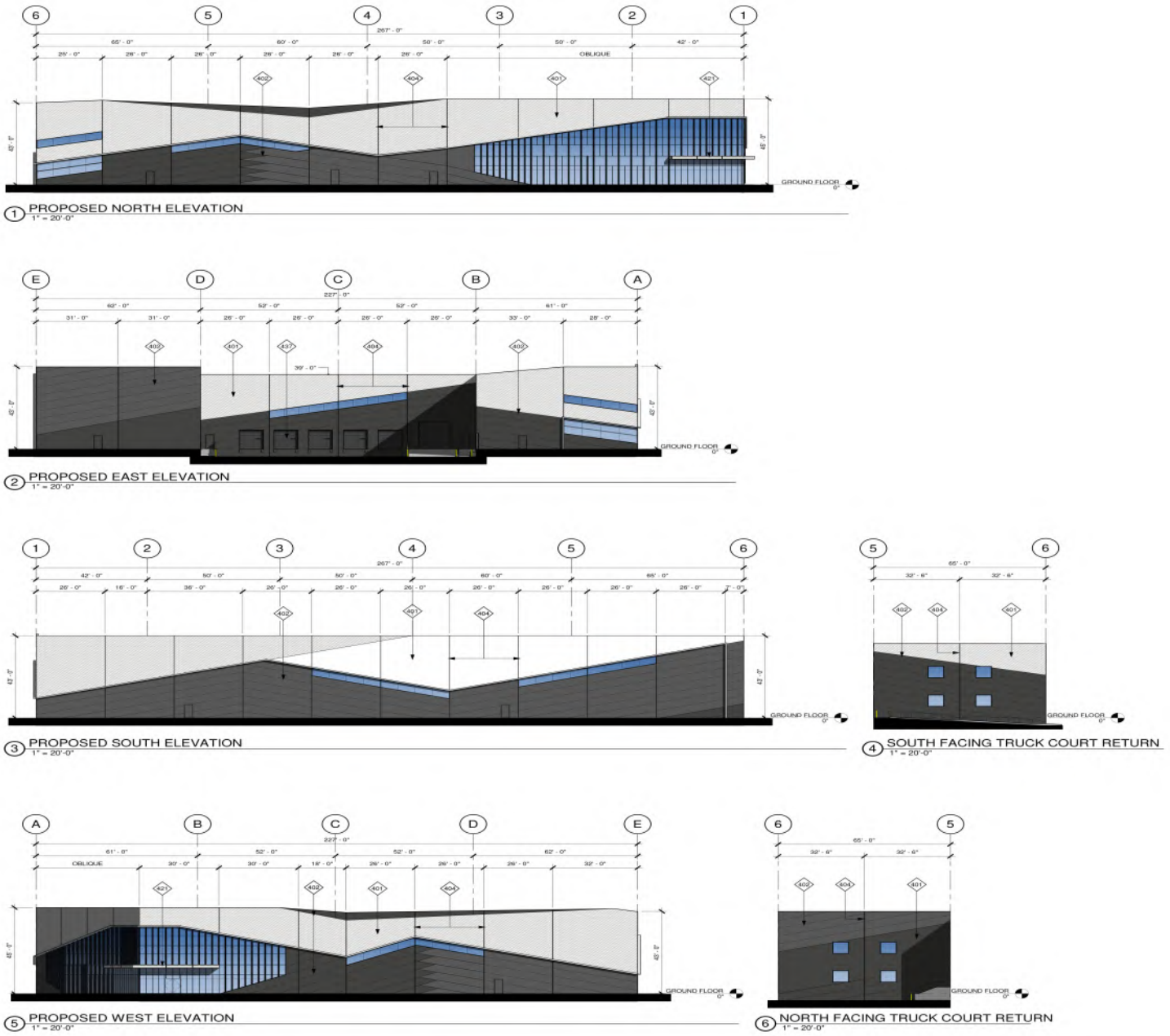
1 PROPOSED SITE PLAN
1" = 20'-0"

SOURCE: Herdman 2023

FIGURE 6
Site Plan
5th Street and Central Avenue Warehouse Project ISMND

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SOURCE: Herdman 2023

FIGURE 7

Conceptual Elevations

5th Street and Central Avenue Warehouse Project ISMND

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SOURCE: Herdman 2023

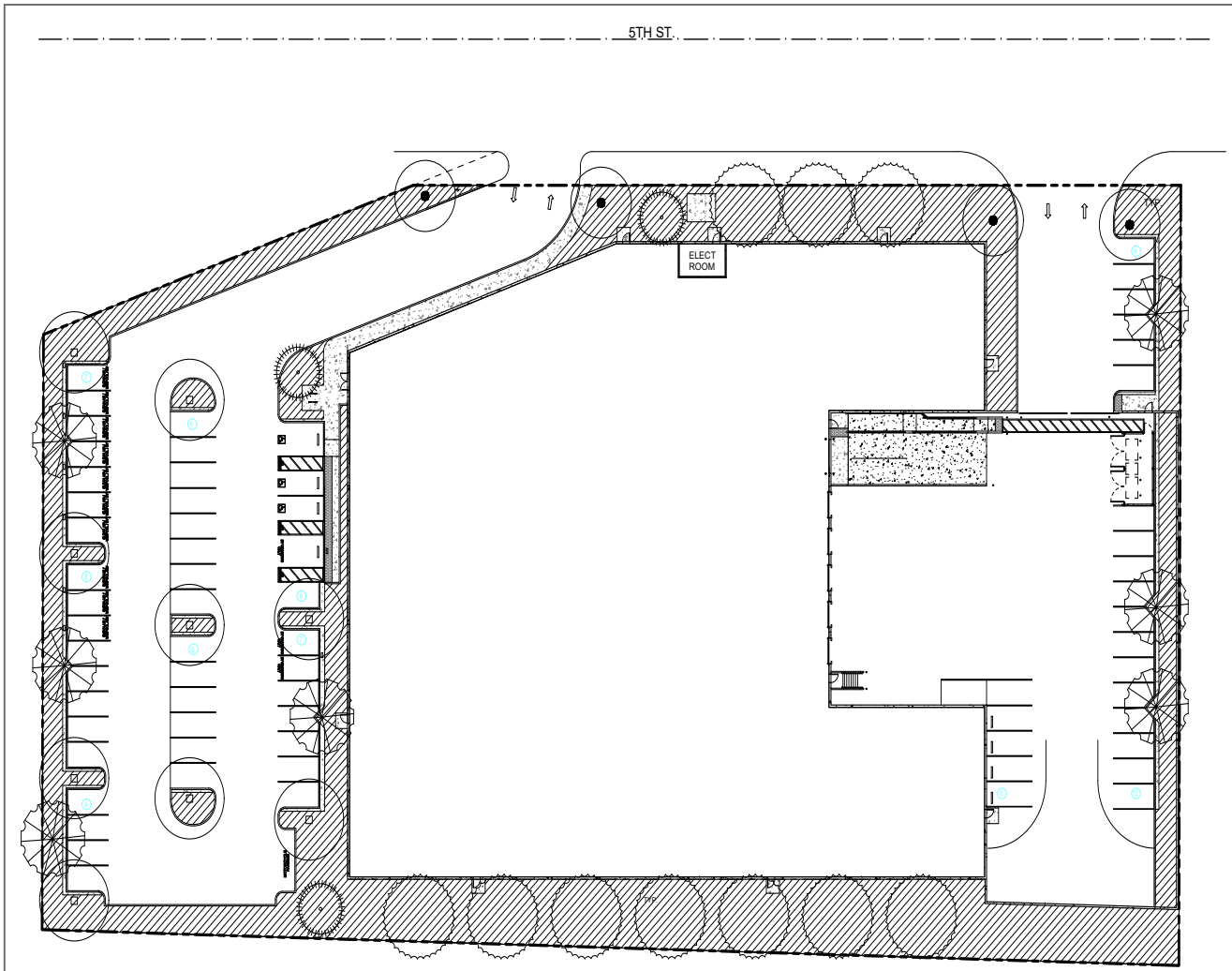
FIGURE 8

Conceptual Rendering

5th Street and Central Avenue Warehouse Project ISMND

DUDEK

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PLANTING LEGEND

TREES

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	Cercidium 'Desert Museum' Blue Palo Verde	36" Box	4	L	Multi
	Chilopsis linearis Desert Willow	24" Box	3	L	Multi
	Chitalpa tashkentensis Chitalpa	24" Box	7	L	Standard
	Pinus eldarica Afghan Pine	24" Box	10	L	Standard
	Rhus lancea African Sumac	24" Box	9	L	Standard

SHRUBS

SYMBOL	BOTANICAL/COMMON NAME	SIZE		WUCOLS	SPACING
	Acca sellowiana Pineapple Guava	5 Gal	52	L	3' OC 2' from hardscape
	Aloe striata Coral Aloe	1 Gal		L	
	Callistemon 'Little John' Dwarf Bottle Brush	5 Gal		L	3' OC 2' from hardscape
	Cassia phyllodenia Silverleaf Cassia	5 Gal		L	2.5' O.C. 2' from hardscape
	Dietes bicolor Fortnight Lily	5 Gal		M	3' OC 2' from hardscape
	Ligustrum j. Texanum Texas Privet	5 Gal		M	3' OC 2' from hardscape
	Salvia c. 'Allen Chickering' Allen Chickering Sage	5 Gal		L	4' O.C. 2.5' from hardscape
	Salvia greggii Autumn Sage	5 Gal		L	3' OC 2' from hardscape
	Salvia leucantha Mexican Sage	5 Gal		L	3' OC 2' from hardscape
	Westringia f. 'Grey Box Dwarf Coast Rosemary	5 Gal		L	3' OC 2' from hardscape

GROUNDCOVER

SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS	REMARKS
	Lantana 'Gold Mound' Yellow Lantana	1 Gal	36" O.C.	L	
	Lonicera j. 'Halliana' Hall's Honeysuckle	1 Gal	48" O.C.	L	
	Muhlenbergia capillaris Pink Muhly	1 Gal	36" O.C.	M	Grass
	Myoporum parvifolium Myoporum	1 Gal	36" O.C.	L	
	Rosmarinus 'HuntingtonCarpet' Prostrate Rosemary	1 Gal	48" O.C.	L	

N

0 10' 20' 40'

SOURCE: Hunter Landscape, 2023

FIGURE 9

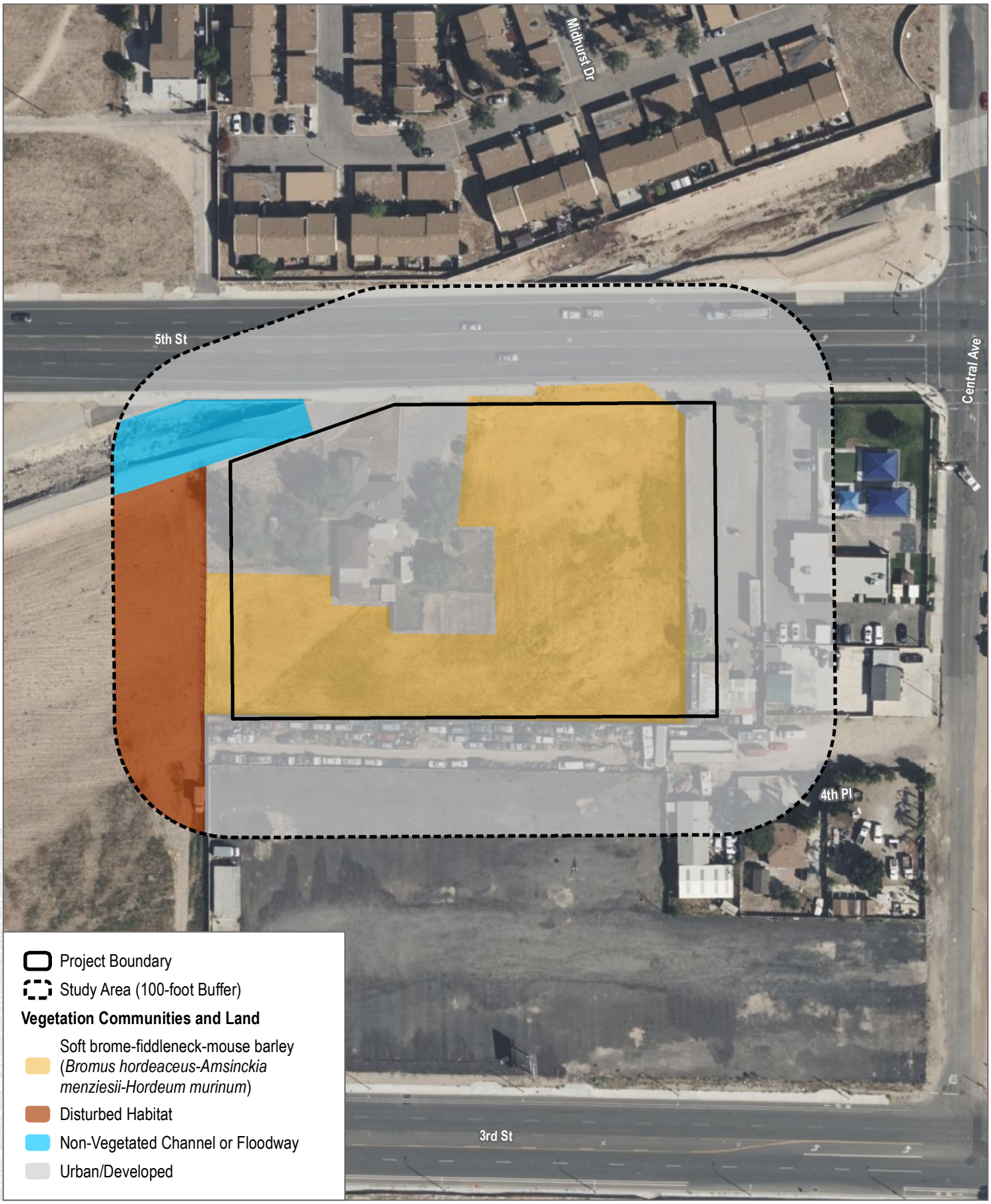
Landscaping Plan

5th Street and Central Avenue Warehouse Project ISMND

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Path: \\dudek.int\data\GIS\Data\Projects\15255\01\MAPDOC\DOCUMENT.MXD

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SOURCE: Bing Maps Aerial (accessed 2023)

DUDEK

0 55 110 Feet

FIGURE 10

Biological Resources

5th Street and Central Avenue Warehouse Project

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SOURCE: Esri World Imagery Basemap

DUDEK

0 155 310 Feet

FIGURE 11

Noise Measurement Locations

5th Street and Central Avenue Warehouse Project

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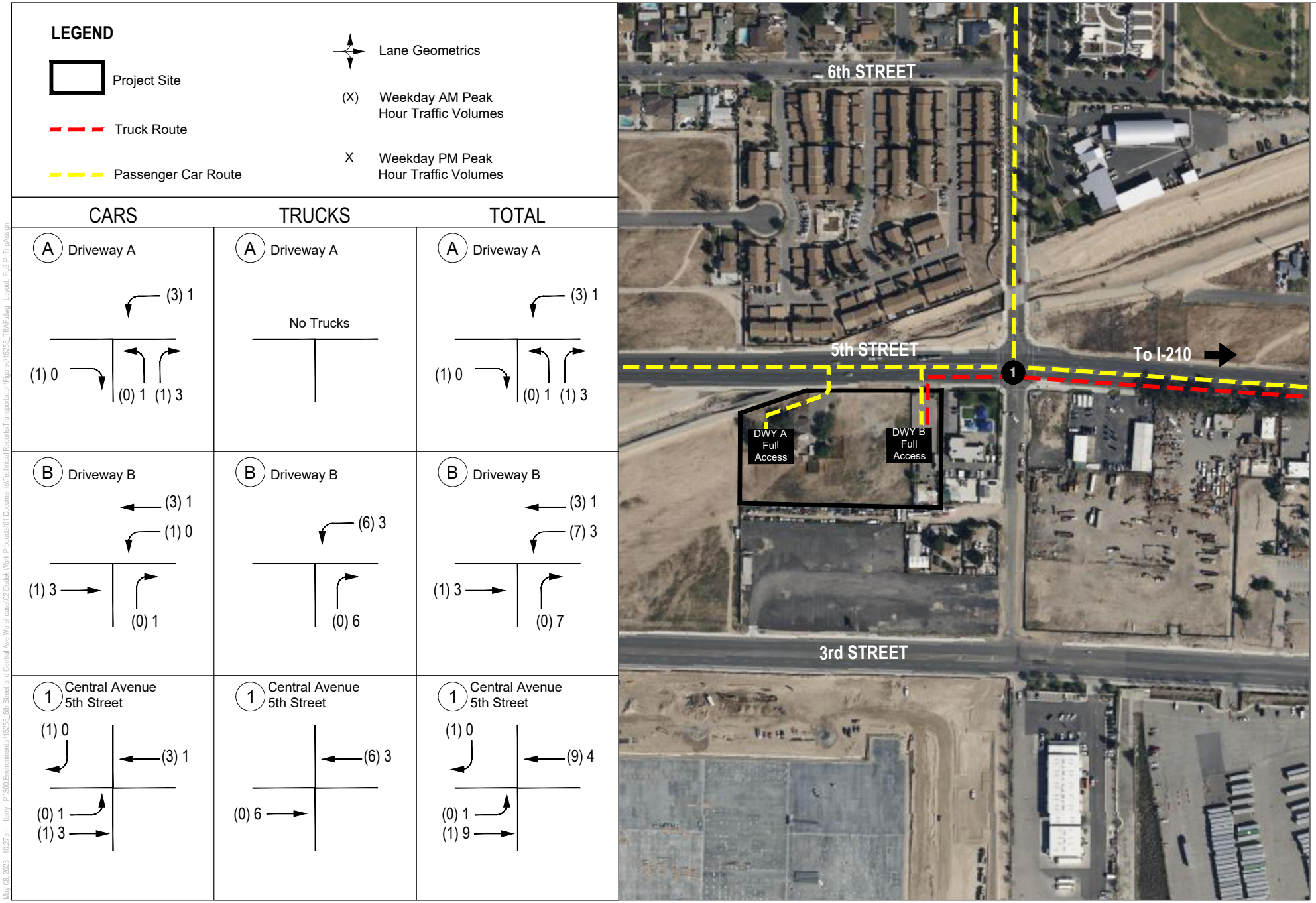


Figure 12

Project Trip Assignment

5th Street and Central Avenue Warehouse Project ISMND

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Appendix A-1

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5th Street and Central Avenue Warehouse
Construction Start Date	1/2/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	11.2
Location	34.10798204818093, -117.2191244532882
County	San Bernardino-South Coast
City	Highland
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5173
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-No Rail	38.9	1000sqft	1.00	38,908	124,788	—	—	—
Unrefrigerated Warehouse-Rail	14.8	1000sqft	0.34	14,758	0.00	—	—	—
Parking Lot	66.0	Space	0.59	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.69	1.39	10.3	14.4	0.02	0.38	0.77	1.15	0.35	0.19	0.54	—	3,060	3,060	0.15	0.13	4.32	3,106
Mit.	0.68	0.59	9.85	15.3	0.02	0.20	0.77	0.97	0.19	0.19	0.38	—	3,060	3,060	0.15	0.13	4.32	3,106
% Reduced	60%	57%	5%	-6%	—	46%	—	15%	46%	—	30%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	2.13	1.75	17.0	17.9	0.03	0.76	7.44	8.20	0.69	3.52	4.21	—	3,440	3,440	0.20	0.16	0.11	3,493
Mit.	0.67	0.58	9.92	16.4	0.03	0.20	3.12	3.18	0.19	1.43	1.49	—	3,440	3,440	0.20	0.16	0.11	3,493
% Reduced	69%	67%	42%	8%	—	73%	58%	61%	73%	59%	65%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.20	0.99	7.78	9.80	0.02	0.30	0.78	1.07	0.27	0.26	0.53	—	2,098	2,098	0.10	0.08	1.19	2,127
Mit.	0.44	0.39	6.79	10.2	0.02	0.13	0.61	0.74	0.12	0.17	0.29	—	2,098	2,098	0.10	0.08	1.19	2,127
% Reduced	63%	61%	13%	-4%	—	56%	22%	31%	56%	32%	44%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.22	0.18	1.42	1.79	< 0.005	0.05	0.14	0.20	0.05	0.05	0.10	—	347	347	0.02	0.01	0.20	352
Mit.	0.08	0.07	1.24	1.86	< 0.005	0.02	0.11	0.13	0.02	0.03	0.05	—	347	347	0.02	0.01	0.20	352
% Reduced	63%	61%	13%	-4%	—	56%	22%	31%	56%	32%	44%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.69	1.39	10.3	14.4	0.02	0.38	0.77	1.15	0.35	0.19	0.54	—	3,060	3,060	0.15	0.13	4.32	3,106
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.13	1.75	17.0	17.9	0.03	0.76	7.44	8.20	0.69	3.52	4.21	—	3,440	3,440	0.20	0.16	0.11	3,493
2025	0.66	0.71	4.70	7.32	0.01	0.20	0.18	0.39	0.19	0.04	0.23	—	1,173	1,173	0.05	0.01	0.02	1,178

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.20	0.99	7.78	9.80	0.02	0.30	0.78	1.07	0.27	0.26	0.53	—	2,098	2,098	0.10	0.08	1.19	2,127
2025	0.01	0.01	0.04	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	< 0.005	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.22	0.18	1.42	1.79	< 0.005	0.05	0.14	0.20	0.05	0.05	0.10	—	347	347	0.02	0.01	0.20	352
2025	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.73

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.68	0.59	9.85	15.3	0.02	0.20	0.77	0.97	0.19	0.19	0.38	—	3,060	3,060	0.15	0.13	4.32	3,106
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.67	0.58	9.92	16.4	0.03	0.20	3.12	3.18	0.19	1.43	1.49	—	3,440	3,440	0.20	0.16	0.11	3,493
2025	0.26	0.40	4.70	7.71	0.01	0.06	0.18	0.24	0.05	0.04	0.10	—	1,173	1,173	0.05	0.01	0.02	1,178
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.44	0.39	6.79	10.2	0.02	0.13	0.61	0.74	0.12	0.17	0.29	—	2,098	2,098	0.10	0.08	1.19	2,127
2025	0.01	0.01	0.04	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	< 0.005	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.08	0.07	1.24	1.86	< 0.005	0.02	0.11	0.13	0.02	0.03	0.05	—	347	347	0.02	0.01	0.20	352
2025	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.73

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.90	3.57	19.0	29.2	0.07	0.89	0.76	1.65	0.83	0.16	0.99	51.0	7,820	7,871	5.60	0.55	11.4	8,186
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.44	3.15	19.1	25.8	0.06	0.89	0.74	1.63	0.82	0.16	0.98	51.0	7,696	7,747	5.59	0.55	0.29	8,051
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.75	3.44	19.2	27.8	0.07	0.89	0.76	1.65	0.82	0.16	0.98	51.0	7,761	7,812	5.60	0.55	4.90	8,121
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.50	0.63	3.50	5.08	0.01	0.16	0.14	0.30	0.15	0.03	0.18	8.44	1,285	1,293	0.93	0.09	0.81	1,345

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Area	0.41	1.67	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	721	721	0.05	< 0.005	—	724
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.90	3.57	19.0	29.2	0.07	0.89	0.76	1.65	0.83	0.16	0.99	51.0	7,820	7,871	5.60	0.55	11.4	8,186

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	721	721	0.05	< 0.005	—	724
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.44	3.15	19.1	25.8	0.06	0.89	0.74	1.63	0.82	0.16	0.98	51.0	7,696	7,747	5.59	0.55	0.29	8,051
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.24	3.42	4.15	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,693	3,693	0.25	0.46	4.90	3,842
Area	0.28	1.55	0.01	1.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.57	6.57	< 0.005	< 0.005	—	6.60
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	721	721	0.05	< 0.005	—	724
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.75	3.44	19.2	27.8	0.07	0.89	0.76	1.65	0.82	0.16	0.98	51.0	7,761	7,812	5.60	0.55	4.90	8,121
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636
Area	0.05	0.28	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	119	119	0.01	< 0.005	—	120
Water	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9
Waste	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7
Off-Road	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532
Total	0.50	0.63	3.50	5.08	0.01	0.16	0.14	0.30	0.15	0.03	0.18	8.44	1,285	1,293	0.93	0.09	0.81	1,345

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Area	0.41	1.67	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	721	721	0.05	< 0.005	—	724
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.90	3.57	19.0	29.2	0.07	0.89	0.76	1.65	0.83	0.16	0.99	51.0	7,820	7,871	5.60	0.55	11.4	8,186
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	721	721	0.05	< 0.005	—	724
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.44	3.15	19.1	25.8	0.06	0.89	0.74	1.63	0.82	0.16	0.98	51.0	7,696	7,747	5.59	0.55	0.29	8,051
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.24	3.42	4.15	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,693	3,693	0.25	0.46	4.90	3,842
Area	0.28	1.55	0.01	1.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.57	6.57	< 0.005	< 0.005	—	6.60
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	721	721	0.05	< 0.005	—	724
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241

Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.75	3.44	19.2	27.8	0.07	0.89	0.76	1.65	0.82	0.16	0.98	51.0	7,761	7,812	5.60	0.55	4.90	8,121
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636
Area	0.05	0.28	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	119	119	0.01	< 0.005	—	120
Water	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9
Waste	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7
Off-Road	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532
Total	0.50	0.63	3.50	5.08	0.01	0.16	0.14	0.30	0.15	0.03	0.18	8.44	1,285	1,293	0.93	0.09	0.81	1,345

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.92	1.61	15.6	16.0	0.02	0.67	—	0.67	0.62	—	0.62	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.17	0.17	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	0.88	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.69	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	350	350	0.02	0.01	0.04	354
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	0.02	< 0.005	0.18	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	0.02	0.02	0.01	152
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.04	19.7
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.87	6.87	< 0.005	< 0.005	0.01	7.20
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.91	7.91	< 0.005	< 0.005	0.01	8.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.22	3.22	< 0.005	< 0.005	0.01	3.26

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.19
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	1.38

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.33	8.81	14.6	0.02	0.10	—	0.10	0.09	—	0.09	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.17	0.17	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.48	0.80	< 0.005	0.01	—	0.01	0.01	—	0.01	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.09	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.69	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	350	350	0.02	0.01	0.04	354
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	0.02	< 0.005	0.18	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	0.02	0.02	0.01	152
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.04	19.7
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.87	6.87	< 0.005	< 0.005	0.01	7.20
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.91	7.91	< 0.005	< 0.005	0.01	8.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.22	3.22	< 0.005	< 0.005	0.01	3.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.19
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	1.38

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	1.31	12.5	11.0	0.02	0.59	—	0.59	0.54	—	0.54	—	1,773	1,773	0.07	0.01	—	1,779
Dust From Material Movement	—	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.3	24.3	< 0.005	< 0.005	—	24.4
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.70	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	145	145	0.01	0.01	0.02	147
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.02	2.02	< 0.005	< 0.005	< 0.005	2.04
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.80
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.30
Hauling	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	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.22	5.22	9.85	0.02	0.03	—	0.03	0.03	—	0.03	—	1,773	1,773	0.07	0.01	—	1,779

Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.3	24.3	< 0.005	< 0.005	—	24.4
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.70	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	145	145	0.01	0.01	0.02	147
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.02	2.02	< 0.005	< 0.005	< 0.005	2.04
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.80
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.30
Hauling	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	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.96	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movemen:	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.44	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.2	67.2	< 0.005	< 0.005	—	67.5

Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.2
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.64	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	< 0.005	0.01	134
Vendor	0.01	< 0.005	0.11	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	94.1	94.1	0.01	0.01	0.01	98.5
Hauling	0.10	0.02	0.97	0.53	0.01	0.01	0.20	0.21	0.01	0.05	0.06	—	761	761	0.08	0.12	0.04	799
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.67	3.67	< 0.005	< 0.005	0.01	3.72
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.58	2.58	< 0.005	< 0.005	< 0.005	2.70
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.8	20.8	< 0.005	< 0.005	0.02	21.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.45	3.45	< 0.005	< 0.005	< 0.005	3.63

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.32	7.70	14.2	0.02	0.05	—	0.05	0.05	—	0.05	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movement:	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.21	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	67.2	67.2	< 0.005	< 0.005	—	67.5
Dust From Material Movement:	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.2

Dust From Material Movemen:	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.64	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	< 0.005	0.01	134
Vendor	0.01	< 0.005	0.11	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	94.1	94.1	0.01	0.01	0.01	98.5
Hauling	0.10	0.02	0.97	0.53	0.01	0.01	0.20	0.21	0.01	0.05	0.06	—	761	761	0.08	0.12	0.04	799
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.67	3.67	< 0.005	< 0.005	0.01	3.72
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.58	2.58	< 0.005	< 0.005	< 0.005	2.70
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.8	20.8	< 0.005	< 0.005	0.02	21.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.45	3.45	< 0.005	< 0.005	< 0.005	3.63

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	5.56	5.95	0.01	0.22	—	0.22	0.20	—	0.20	—	1,061	1,061	0.04	0.01	—	1,065
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.01	1.09	< 0.005	0.04	—	0.04	0.04	—	0.04	—	176	176	0.01	< 0.005	—	176
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.24	0.23	3.94	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	670	670	0.03	0.02	2.68	680
Vendor	0.06	0.02	0.68	0.36	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	589	589	0.05	0.09	1.64	618
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.23	0.27	2.97	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	614	614	0.03	0.02	0.07	622
Vendor	0.06	0.02	0.70	0.37	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	590	590	0.05	0.09	0.04	617
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.84	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	367	367	0.02	0.01	0.68	372
Vendor	0.04	0.01	0.42	0.22	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	347	347	0.03	0.05	0.42	364
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	60.7	60.7	< 0.005	< 0.005	0.11	61.6
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.5	57.5	< 0.005	0.01	0.07	60.2
Hauling	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	0.00

3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	8.95	11.0	0.02	0.20	—	0.20	0.18	—	0.18	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	8.95	11.0	0.02	0.20	—	0.20	0.18	—	0.18	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.20	5.27	6.48	0.01	0.12	—	0.12	0.11	—	0.11	—	1,061	1,061	0.04	0.01	—	1,065
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.96	1.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	176	176	0.01	< 0.005	—	176
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.24	0.23	3.94	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	670	670	0.03	0.02	2.68	680
Vendor	0.06	0.02	0.68	0.36	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	589	589	0.05	0.09	1.64	618
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.23	0.27	2.97	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	614	614	0.03	0.02	0.07	622
Vendor	0.06	0.02	0.70	0.37	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	590	590	0.05	0.09	0.04	617
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.84	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	367	367	0.02	0.01	0.68	372
Vendor	0.04	0.01	0.42	0.22	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	347	347	0.03	0.05	0.42	364

Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	60.7	60.7	< 0.005	< 0.005	0.11	61.6
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.5	57.5	< 0.005	0.01	0.07	60.2
Hauling	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	0.00

3.9. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.2	25.2	< 0.005	< 0.005	—	25.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.18	4.18	< 0.005	< 0.005	—	4.19

Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.89	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	185	185	0.01	0.01	0.02	187
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.77	4.77	< 0.005	< 0.005	0.01	4.83
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	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	0.00
Hauling	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	0.00

3.10. Paving (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.19	4.63	6.89	0.01	0.06	—	0.06	0.05	—	0.05	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.12	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25.2	25.2	< 0.005	< 0.005	—	25.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.18	4.18	< 0.005	< 0.005	—	4.19
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.89	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	185	185	0.01	0.01	0.02	187
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.77	4.77	< 0.005	< 0.005	0.01	4.83
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	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	0.00
Hauling	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	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.63	6.50	0.01	0.20	—	0.20	0.19	—	0.19	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.89
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.64
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	181	181	0.01	0.01	0.02	183
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	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	0.00
Hauling	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	0.00

3.12. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.19	4.63	6.89	0.01	0.06	—	0.06	0.05	—	0.05	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.89
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.64
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	181	181	0.01	0.01	0.02	183
Vendor	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	0.00

Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	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	0.00
Hauling	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	0.00

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.5	77.5	< 0.005	< 0.005	0.01	78.5
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.15	2.15	< 0.005	< 0.005	< 0.005	2.18
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.36
Vendor	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	0.00
Hauling	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	0.00

3.14. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.5	77.5	< 0.005	< 0.005	0.01	78.5
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.15	2.15	< 0.005	< 0.005	< 0.005	2.18
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.36
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.20	0.19	0.16	3.11	0.01	< 0.005	0.30	0.30	< 0.005	0.05	0.05	—	816	816	0.02	0.02	2.97	824
Unrefrigerated Warehouse-Rail	0.30	0.06	3.06	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,933	2,933	0.23	0.44	8.38	3,080
Parking Lot	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	0.00
Total	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.16	0.15	0.15	2.05	0.01	< 0.005	0.28	0.29	< 0.005	0.05	0.05	—	701	701	0.02	0.02	0.07	706
Unrefrigerated Warehouse-Rail	0.30	0.06	3.20	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,934	2,934	0.23	0.44	0.22	3,072
Parking Lot	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	0.00
Total	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.03	0.03	0.45	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	126	126	< 0.005	< 0.005	0.21	127
Unrefrigerated Warehouse-Rail	0.06	0.01	0.59	0.30	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	486	486	0.04	0.07	0.60	509
Parking Lot	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	0.00
Total	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.20	0.19	0.16	3.11	0.01	< 0.005	0.30	0.30	< 0.005	0.05	0.05	—	816	816	0.02	0.02	2.97	824
Unrefrigerated Warehouse-Rail	0.30	0.06	3.06	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,933	2,933	0.23	0.44	8.38	3,080
Parking Lot	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	0.00
Total	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.16	0.15	0.15	2.05	0.01	< 0.005	0.28	0.29	< 0.005	0.05	0.05	—	701	701	0.02	0.02	0.07	706
Unrefrigerated Warehouse-Rail	0.30	0.06	3.20	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,934	2,934	0.23	0.44	0.22	3,072
Parking Lot	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	0.00
Total	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.03	0.03	0.45	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	126	126	< 0.005	< 0.005	0.21	127

Unrefrige Warehouse-Rail	0.06	0.01	0.59	0.30	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	486	486	0.04	0.07	0.60	509
Parking Lot	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	0.00
Total	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	394	394	0.02	< 0.005	—	396
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263

Unrefrige Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	394	394	0.02	< 0.005	—	396
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	43.4	43.4	< 0.005	< 0.005	—	43.5
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	5.47	5.47	< 0.005	< 0.005	—	5.49
Total	—	—	—	—	—	—	—	—	—	—	—	—	65.3	65.3	< 0.005	< 0.005	—	65.5

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	394	394	0.02	< 0.005	—	396
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	394	394	0.02	< 0.005	—	396
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	43.4	43.4	< 0.005	< 0.005	—	43.5
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	5.47	5.47	< 0.005	< 0.005	—	5.49
Total	—	—	—	—	—	—	—	—	—	—	—	—	65.3	65.3	< 0.005	< 0.005	—	65.5

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	237	237	0.02	< 0.005	—	238
Unrefrigerated Warehouse-Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.9	89.9	0.01	< 0.005	—	90.2
Parking Lot	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
Total	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.03	< 0.005	—	328
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	237	237	0.02	< 0.005	—	238
Unrefrigerated Warehouse-Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.9	89.9	0.01	< 0.005	—	90.2
Parking Lot	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
Total	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.03	< 0.005	—	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	39.2	39.2	< 0.005	< 0.005	—	39.4
Unrefrigerated Warehouse-Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Parking Lot	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
Total	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.1	54.1	< 0.005	< 0.005	—	54.3

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	237	237	0.02	< 0.005	—	238
Unrefrigerated Warehouse-Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.9	89.9	0.01	< 0.005	—	90.2
Parking Lot	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
Total	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.03	< 0.005	—	328
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	237	237	0.02	< 0.005	—	238
Unrefrigerated Warehouse-Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.9	89.9	0.01	< 0.005	—	90.2
Parking Lot	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
Total	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.03	< 0.005	—	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	39.2	39.2	< 0.005	< 0.005	—	39.4
Unrefrigerated Warehouse-Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Parking Lot	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
Total	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.1	54.1	< 0.005	< 0.005	—	54.3

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.41	0.38	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Total	0.41	1.67	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.05	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Total	0.05	0.28	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09

4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.41	0.38	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Total	0.41	1.67	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.05	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Total	0.05	0.28	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.85	17.3	20.2	0.29	0.01	—	29.7
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.08	5.61	6.69	0.11	< 0.005	—	10.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9

4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.85	17.3	20.2	0.29	0.01	—	29.7
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.08	5.61	6.69	0.11	< 0.005	—	10.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.26	0.00	3.26	0.33	0.00	—	11.4

Unrefrige Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7

4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrige rated Warehou se-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0

Unrefrigerated Warehou	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.26	0.00	3.26	0.33	0.00	—	11.4
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532
Total	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532
Total	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2024	1/30/2024	5.00	20.0	—
Site Preparation	Site Preparation	1/31/2024	2/6/2024	5.00	5.00	—
Grading	Grading	2/8/2024	2/21/2024	5.00	10.0	—
Building Construction	Building Construction	2/22/2024	12/18/2024	5.00	215	—

Paving	Paving	12/19/2024	1/2/2025	5.00	10.0	—
Architectural Coating	Architectural Coating	1/3/2025	1/17/2025	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38

Paving	Tractors/Loaders/Backh	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	7.00	367	0.40
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Interim	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Interim	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37

Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	10.2	HHDT,MHDT
Demolition	Hauling	2.05	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Demolition	Worker	14.0	18.5	LDA,LDT1,LDT2
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Site Preparation	Worker	6.00	18.5	LDA,LDT1,LDT2
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	3.00	10.2	HHDT,MHDT
Grading	Hauling	10.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	22.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	8.80	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Building Construction	Worker	24.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.0	10.2	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	14.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	10.2	HHDT,MHDT
Demolition	Hauling	2.05	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Demolition	Worker	14.0	18.5	LDA,LDT1,LDT2
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

Site Preparation	Worker	6.00	18.5	LDA,LDT1,LDT2
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	3.00	10.2	HHDT,MHDT
Grading	Hauling	10.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	22.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	8.80	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Building Construction	Worker	24.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.0	10.2	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	14.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,500	—
Site Preparation	—	—	4.69	0.00	—
Grading	864	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.59

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-Rail	0.00	0%
Parking Lot	0.59	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005

2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	66.5	66.5	66.5	24,284	1,121	1,121	1,121	409,141
Unrefrigerated Warehouse-Rail	25.2	25.2	25.2	9,211	1,009	1,009	1,009	368,448
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	66.5	66.5	66.5	24,284	1,121	1,121	1,121	409,141
Unrefrigerated Warehouse-Rail	25.2	25.2	25.2	9,211	1,009	1,009	1,009	368,448
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	80,499	26,833	1,552

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	179,704	532	0.0330	0.0040	739,668
Unrefrigerated Warehouse-Rail	68,163	532	0.0330	0.0040	280,560
Parking Lot	22,666	532	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)

Unrefrigerated Warehouse-No Rail	179,704	532	0.0330	0.0040	739,668
Unrefrigerated Warehouse-Rail	68,163	532	0.0330	0.0040	280,560
Parking Lot	22,666	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	8,997,475	2,003,986
Unrefrigerated Warehouse-Rail	3,412,788	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	8,997,475	2,003,986
Unrefrigerated Warehouse-Rail	3,412,788	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	36.6	—
Unrefrigerated Warehouse-Rail	13.9	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	36.6	—
Unrefrigerated Warehouse-Rail	13.9	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	7.00	24.0	82.0	0.20

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	7.00	24.0	82.0	0.20

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	26.6	annual days of extreme heat
Extreme Precipitation	4.20	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.46	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	100
AQ-PM	56.0
AQ-DPM	41.9
Drinking Water	85.2
Lead Risk Housing	83.8
Pesticides	0.00
Toxic Releases	45.9
Traffic	16.0
Effect Indicators	—
CleanUp Sites	68.9
Groundwater	22.1
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	12.5
Solid Waste	52.9

Sensitive Population	—
Asthma	61.4
Cardio-vascular	77.6
Low Birth Weights	86.5
Socioeconomic Factor Indicators	—
Education	75.1
Housing	74.0
Linguistic	56.9
Poverty	85.7
Unemployment	58.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	16.34800462
Employed	11.27935327
Median HI	8.725779546
Education	—
Bachelor's or higher	7.442576671
High school enrollment	100
Preschool enrollment	10.18863082
Transportation	—
Auto Access	9.829334018
Active commuting	32.28538432
Social	—
2-parent households	24.66315925

Voting	10.31695111
Neighborhood	—
Alcohol availability	28.07647889
Park access	55.92198127
Retail density	34.69780572
Supermarket access	70.70447838
Tree canopy	5.017323239
Housing	—
Homeownership	34.7747979
Housing habitability	24.54767099
Low-inc homeowner severe housing cost burden	90.72244322
Low-inc renter severe housing cost burden	15.32144232
Uncrowded housing	21.89144104
Health Outcomes	—
Insured adults	28.37161555
Arthritis	0.0
Asthma ER Admissions	25.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	12.7
Cognitively Disabled	22.1
Physically Disabled	55.6
Heart Attack ER Admissions	21.3

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	11.7
Elderly	71.6
English Speaking	51.4
Foreign-born	38.1
Outdoor Workers	48.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	67.0
Traffic Density	24.2
Traffic Access	23.0
Other Indices	—
Hardship	87.3
Other Decision Support	—
2016 Voting	9.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	81.0
Healthy Places Index Score for Project Location (b)	7.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

This table summarizes the points earned for each health and equity measure category, and the total possible points for each category. If N/A is selected for any measure(s), the total possible points in that category are reduced accordingly. The points for each category are then weighted on a 15-point scale to determine the score per category and a total weighted score.

Category	Number of Applicable Measures	Total Points Earned by Applicable Measures	Max Possible Points	Weighted Score
Community-Centered Development	5.00	0.00	25.0	0.00
Inclusive Engagement	6.00	0.00	30.0	0.00
Accountability	5.00	0.00	25.0	0.00
Construction Equity	6.00	0.00	30.0	0.00
Public Health and Air Quality	4.00	0.00	20.0	0.00
Inclusive Economics & Prosperity	4.00	0.00	20.0	0.00
Inclusive Communities	4.00	0.00	20.0	0.00
Total	34.0	0.00	170	0.00

Based on the weighted score of 0 out of a total 170 possible points, your project qualifies for the Acorn equity award level.
Organization(s) consulted by the user to complete the Health & Equity Scorecard:

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	a
Construction: Construction Phases	mod
Construction: Trips and VMT	m
Construction: Architectural Coatings	a
Construction: Off-Road Equipment	a
Construction: Dust From Material Movement	a
Operations: Vehicle Data	Tip rates and distances were revised to be consistent with the TIA
Operations: Fleet Mix	Modified to be consistent with the project's transportation analysis.
Operations: Off-Road Equipment	Information based on the SCAQMD warehouse Survey

5th Street and Central Avenue Warehouse Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5th Street and Central Avenue Warehouse
Construction Start Date	1/2/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	11.2
Location	34.10798204818093, -117.2191244532882
County	San Bernardino-South Coast
City	Highland
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5173
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-No Rail	38.9	1000sqft	1.00	38,908	124,788	—	—	—
Unrefrigerated Warehouse-Rail	14.8	1000sqft	0.34	14,758	0.00	—	—	—
Parking Lot	66.0	Space	0.59	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.69	1.39	10.3	14.4	0.02	0.38	0.77	1.15	0.35	0.19	0.54	—	3,060	3,060	0.15	0.13	4.32	3,106
Mit.	0.68	0.59	9.85	15.3	0.02	0.20	0.77	0.97	0.19	0.19	0.38	—	3,060	3,060	0.15	0.13	4.32	3,106
% Reduced	60%	57%	5%	-6%	—	46%	—	15%	46%	—	30%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	2.13	1.75	17.0	17.9	0.03	0.76	7.44	8.20	0.69	3.52	4.21	—	3,440	3,440	0.20	0.16	0.11	3,493
Mit.	0.67	0.58	9.92	16.4	0.03	0.20	3.12	3.18	0.19	1.43	1.49	—	3,440	3,440	0.20	0.16	0.11	3,493
% Reduced	69%	67%	42%	8%	—	73%	58%	61%	73%	59%	65%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.20	0.99	7.78	9.80	0.02	0.30	0.78	1.07	0.27	0.26	0.53	—	2,098	2,098	0.10	0.08	1.19	2,127
Mit.	0.44	0.39	6.79	10.2	0.02	0.13	0.61	0.74	0.12	0.17	0.29	—	2,098	2,098	0.10	0.08	1.19	2,127
% Reduced	63%	61%	13%	-4%	—	56%	22%	31%	56%	32%	44%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.22	0.18	1.42	1.79	< 0.005	0.05	0.14	0.20	0.05	0.05	0.10	—	347	347	0.02	0.01	0.20	352
Mit.	0.08	0.07	1.24	1.86	< 0.005	0.02	0.11	0.13	0.02	0.03	0.05	—	347	347	0.02	0.01	0.20	352
% Reduced	63%	61%	13%	-4%	—	56%	22%	31%	56%	32%	44%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.69	1.39	10.3	14.4	0.02	0.38	0.77	1.15	0.35	0.19	0.54	—	3,060	3,060	0.15	0.13	4.32	3,106
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.13	1.75	17.0	17.9	0.03	0.76	7.44	8.20	0.69	3.52	4.21	—	3,440	3,440	0.20	0.16	0.11	3,493
2025	0.66	0.71	4.70	7.32	0.01	0.20	0.18	0.39	0.19	0.04	0.23	—	1,173	1,173	0.05	0.01	0.02	1,178

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.20	0.99	7.78	9.80	0.02	0.30	0.78	1.07	0.27	0.26	0.53	—	2,098	2,098	0.10	0.08	1.19	2,127
2025	0.01	0.01	0.04	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	< 0.005	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.22	0.18	1.42	1.79	< 0.005	0.05	0.14	0.20	0.05	0.05	0.10	—	347	347	0.02	0.01	0.20	352
2025	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.73

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.68	0.59	9.85	15.3	0.02	0.20	0.77	0.97	0.19	0.19	0.38	—	3,060	3,060	0.15	0.13	4.32	3,106
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.67	0.58	9.92	16.4	0.03	0.20	3.12	3.18	0.19	1.43	1.49	—	3,440	3,440	0.20	0.16	0.11	3,493
2025	0.26	0.40	4.70	7.71	0.01	0.06	0.18	0.24	0.05	0.04	0.10	—	1,173	1,173	0.05	0.01	0.02	1,178
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.44	0.39	6.79	10.2	0.02	0.13	0.61	0.74	0.12	0.17	0.29	—	2,098	2,098	0.10	0.08	1.19	2,127
2025	0.01	0.01	0.04	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	< 0.005	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.08	0.07	1.24	1.86	< 0.005	0.02	0.11	0.13	0.02	0.03	0.05	—	347	347	0.02	0.01	0.20	352
2025	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.73

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.95	1.94	3.52	7.34	0.04	0.07	0.76	0.83	0.07	0.16	0.23	51.0	5,711	5,762	5.53	0.53	11.4	6,071
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.49	1.51	3.62	3.94	0.04	0.07	0.74	0.81	0.07	0.16	0.22	51.0	5,588	5,639	5.53	0.53	0.29	5,936
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.81	1.80	3.71	5.98	0.04	0.07	0.76	0.83	0.07	0.16	0.23	51.0	5,652	5,703	5.54	0.53	4.90	6,005
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	0.33	0.68	1.09	0.01	0.01	0.14	0.15	0.01	0.03	0.04	8.44	936	944	0.92	0.09	0.81	994

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Area	0.41	1.67	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,814	1,814	0.12	0.01	—	1,821
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	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
Total	0.95	1.94	3.52	7.34	0.04	0.07	0.76	0.83	0.07	0.16	0.23	51.0	5,711	5,762	5.53	0.53	11.4	6,071

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,814	1,814	0.12	0.01	—	1,821
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	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
Total	0.49	1.51	3.62	3.94	0.04	0.07	0.74	0.81	0.07	0.16	0.22	51.0	5,588	5,639	5.53	0.53	0.29	5,936
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.24	3.42	4.15	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,693	3,693	0.25	0.46	4.90	3,842
Area	0.28	1.55	0.01	1.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.57	6.57	< 0.005	< 0.005	—	6.60
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,814	1,814	0.12	0.01	—	1,821
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	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
Total	0.81	1.80	3.71	5.98	0.04	0.07	0.76	0.83	0.07	0.16	0.23	51.0	5,652	5,703	5.54	0.53	4.90	6,005
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636
Area	0.05	0.28	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	300	300	0.02	< 0.005	—	301
Water	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9
Waste	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7
Off-Road	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
Total	0.15	0.33	0.68	1.09	0.01	0.01	0.14	0.15	0.01	0.03	0.04	8.44	936	944	0.92	0.09	0.81	994

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Area	0.41	1.67	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,814	1,814	0.12	0.01	—	1,821
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	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
Total	0.95	1.94	3.52	7.34	0.04	0.07	0.76	0.83	0.07	0.16	0.23	51.0	5,711	5,762	5.53	0.53	11.4	6,071
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,814	1,814	0.12	0.01	—	1,821
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	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
Total	0.49	1.51	3.62	3.94	0.04	0.07	0.74	0.81	0.07	0.16	0.22	51.0	5,588	5,639	5.53	0.53	0.29	5,936
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.24	3.42	4.15	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,693	3,693	0.25	0.46	4.90	3,842
Area	0.28	1.55	0.01	1.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.57	6.57	< 0.005	< 0.005	—	6.60
Energy	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,814	1,814	0.12	0.01	—	1,821
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241

Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	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
Total	0.81	1.80	3.71	5.98	0.04	0.07	0.76	0.83	0.07	0.16	0.23	51.0	5,652	5,703	5.54	0.53	4.90	6,005
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636
Area	0.05	0.28	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	300	300	0.02	< 0.005	—	301
Water	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9
Waste	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7
Off-Road	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
Total	0.15	0.33	0.68	1.09	0.01	0.01	0.14	0.15	0.01	0.03	0.04	8.44	936	944	0.92	0.09	0.81	994

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.92	1.61	15.6	16.0	0.02	0.67	—	0.67	0.62	—	0.62	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.17	0.17	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	0.88	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.69	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	350	350	0.02	0.01	0.04	354
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	0.02	< 0.005	0.18	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	0.02	0.02	0.01	152
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.04	19.7
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.87	6.87	< 0.005	< 0.005	0.01	7.20
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.91	7.91	< 0.005	< 0.005	0.01	8.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.22	3.22	< 0.005	< 0.005	0.01	3.26

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.19
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	1.38

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.33	8.81	14.6	0.02	0.10	—	0.10	0.09	—	0.09	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.17	0.17	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.48	0.80	< 0.005	0.01	—	0.01	0.01	—	0.01	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.09	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.69	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	350	350	0.02	0.01	0.04	354
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	0.02	< 0.005	0.18	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	0.02	0.02	0.01	152
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.04	19.7
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.87	6.87	< 0.005	< 0.005	0.01	7.20
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.91	7.91	< 0.005	< 0.005	0.01	8.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.22	3.22	< 0.005	< 0.005	0.01	3.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.19
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	1.38

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	1.31	12.5	11.0	0.02	0.59	—	0.59	0.54	—	0.54	—	1,773	1,773	0.07	0.01	—	1,779
Dust From Material Movement	—	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.3	24.3	< 0.005	< 0.005	—	24.4
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.70	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	145	145	0.01	0.01	0.02	147
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.02	2.02	< 0.005	< 0.005	< 0.005	2.04
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.80
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.30
Hauling	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	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.22	5.22	9.85	0.02	0.03	—	0.03	0.03	—	0.03	—	1,773	1,773	0.07	0.01	—	1,779

Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.3	24.3	< 0.005	< 0.005	—	24.4
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.70	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	145	145	0.01	0.01	0.02	147
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.02	2.02	< 0.005	< 0.005	< 0.005	2.04
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.80
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.30
Hauling	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	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.96	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movemen:	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.44	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.2	67.2	< 0.005	< 0.005	—	67.5

Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.2
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.64	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	< 0.005	0.01	134
Vendor	0.01	< 0.005	0.11	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	94.1	94.1	0.01	0.01	0.01	98.5
Hauling	0.10	0.02	0.97	0.53	0.01	0.01	0.20	0.21	0.01	0.05	0.06	—	761	761	0.08	0.12	0.04	799
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.67	3.67	< 0.005	< 0.005	0.01	3.72
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.58	2.58	< 0.005	< 0.005	< 0.005	2.70
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.8	20.8	< 0.005	< 0.005	0.02	21.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.45	3.45	< 0.005	< 0.005	< 0.005	3.63

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.32	7.70	14.2	0.02	0.05	—	0.05	0.05	—	0.05	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movemen:	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.21	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	67.2	67.2	< 0.005	< 0.005	—	67.5
Dust From Material Movemen:	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.2

Dust From Material Movemen:	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.64	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	< 0.005	0.01	134
Vendor	0.01	< 0.005	0.11	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	94.1	94.1	0.01	0.01	0.01	98.5
Hauling	0.10	0.02	0.97	0.53	0.01	0.01	0.20	0.21	0.01	0.05	0.06	—	761	761	0.08	0.12	0.04	799
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.67	3.67	< 0.005	< 0.005	0.01	3.72
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.58	2.58	< 0.005	< 0.005	< 0.005	2.70
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.8	20.8	< 0.005	< 0.005	0.02	21.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.45	3.45	< 0.005	< 0.005	< 0.005	3.63

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	5.56	5.95	0.01	0.22	—	0.22	0.20	—	0.20	—	1,061	1,061	0.04	0.01	—	1,065
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.01	1.09	< 0.005	0.04	—	0.04	0.04	—	0.04	—	176	176	0.01	< 0.005	—	176
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.24	0.23	3.94	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	670	670	0.03	0.02	2.68	680
Vendor	0.06	0.02	0.68	0.36	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	589	589	0.05	0.09	1.64	618
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.23	0.27	2.97	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	614	614	0.03	0.02	0.07	622
Vendor	0.06	0.02	0.70	0.37	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	590	590	0.05	0.09	0.04	617
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.84	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	367	367	0.02	0.01	0.68	372
Vendor	0.04	0.01	0.42	0.22	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	347	347	0.03	0.05	0.42	364
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	60.7	60.7	< 0.005	< 0.005	0.11	61.6
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.5	57.5	< 0.005	0.01	0.07	60.2
Hauling	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	0.00

3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	8.95	11.0	0.02	0.20	—	0.20	0.18	—	0.18	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	8.95	11.0	0.02	0.20	—	0.20	0.18	—	0.18	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.20	5.27	6.48	0.01	0.12	—	0.12	0.11	—	0.11	—	1,061	1,061	0.04	0.01	—	1,065
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.96	1.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	176	176	0.01	< 0.005	—	176
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.24	0.23	3.94	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	670	670	0.03	0.02	2.68	680
Vendor	0.06	0.02	0.68	0.36	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	589	589	0.05	0.09	1.64	618
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.23	0.27	2.97	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	614	614	0.03	0.02	0.07	622
Vendor	0.06	0.02	0.70	0.37	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	590	590	0.05	0.09	0.04	617
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.84	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	367	367	0.02	0.01	0.68	372
Vendor	0.04	0.01	0.42	0.22	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	347	347	0.03	0.05	0.42	364

Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	60.7	60.7	< 0.005	< 0.005	0.11	61.6
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.5	57.5	< 0.005	0.01	0.07	60.2
Hauling	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	0.00

3.9. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.2	25.2	< 0.005	< 0.005	—	25.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.18	4.18	< 0.005	< 0.005	—	4.19

Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.89	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	185	185	0.01	0.01	0.02	187
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.77	4.77	< 0.005	< 0.005	0.01	4.83
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	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	0.00
Hauling	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	0.00

3.10. Paving (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.19	4.63	6.89	0.01	0.06	—	0.06	0.05	—	0.05	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.12	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25.2	25.2	< 0.005	< 0.005	—	25.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.18	4.18	< 0.005	< 0.005	—	4.19
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.89	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	185	185	0.01	0.01	0.02	187
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.77	4.77	< 0.005	< 0.005	0.01	4.83
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	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	0.00
Hauling	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	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.63	6.50	0.01	0.20	—	0.20	0.19	—	0.19	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.89
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.64
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	181	181	0.01	0.01	0.02	183
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	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	0.00
Hauling	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	0.00

3.12. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.19	4.63	6.89	0.01	0.06	—	0.06	0.05	—	0.05	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.89
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.64
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	181	181	0.01	0.01	0.02	183
Vendor	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	0.00

Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	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	0.00
Hauling	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	0.00

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.5	77.5	< 0.005	< 0.005	0.01	78.5
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.15	2.15	< 0.005	< 0.005	< 0.005	2.18
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.36
Vendor	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	0.00
Hauling	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	0.00

3.14. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.5	77.5	< 0.005	< 0.005	0.01	78.5
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.15	2.15	< 0.005	< 0.005	< 0.005	2.18
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.36
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.20	0.19	0.16	3.11	0.01	< 0.005	0.30	0.30	< 0.005	0.05	0.05	—	816	816	0.02	0.02	2.97	824
Unrefrigerated Warehouse-Rail	0.30	0.06	3.06	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,933	2,933	0.23	0.44	8.38	3,080
Parking Lot	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	0.00
Total	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.16	0.15	0.15	2.05	0.01	< 0.005	0.28	0.29	< 0.005	0.05	0.05	—	701	701	0.02	0.02	0.07	706
Unrefrigerated Warehouse-Rail	0.30	0.06	3.20	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,934	2,934	0.23	0.44	0.22	3,072
Parking Lot	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	0.00
Total	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.03	0.03	0.45	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	126	126	< 0.005	< 0.005	0.21	127
Unrefrigerated Warehouse-Rail	0.06	0.01	0.59	0.30	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	486	486	0.04	0.07	0.60	509
Parking Lot	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	0.00
Total	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.20	0.19	0.16	3.11	0.01	< 0.005	0.30	0.30	< 0.005	0.05	0.05	—	816	816	0.02	0.02	2.97	824
Unrefrigerated Warehouse-Rail	0.30	0.06	3.06	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,933	2,933	0.23	0.44	8.38	3,080
Parking Lot	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	0.00
Total	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.16	0.15	0.15	2.05	0.01	< 0.005	0.28	0.29	< 0.005	0.05	0.05	—	701	701	0.02	0.02	0.07	706
Unrefrigerated Warehouse-Rail	0.30	0.06	3.20	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,934	2,934	0.23	0.44	0.22	3,072
Parking Lot	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	0.00
Total	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.03	0.03	0.45	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	126	126	< 0.005	< 0.005	0.21	127

Unrefrige Warehouse-Rail	0.06	0.01	0.59	0.30	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	486	486	0.04	0.07	0.60	509
Parking Lot	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	0.00
Total	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
undefined	—	—	—	—	—	—	—	—	—	—	—	—	1,093	1,093	0.07	0.01	—	1,097
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,487	1,487	0.09	0.01	—	1,493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
undefined	—	—	—	—	—	—	—	—	—	—	—	—	1,093	1,093	0.07	0.01	—	1,097
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,487	1,487	0.09	0.01	—	1,493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	43.4	43.4	< 0.005	< 0.005	—	43.5
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	5.47	5.47	< 0.005	< 0.005	—	5.49
undefined	—	—	—	—	—	—	—	—	—	—	—	—	181	181	0.01	< 0.005	—	182
Total	—	—	—	—	—	—	—	—	—	—	—	—	246	246	0.02	< 0.005	—	247

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
undefined	—	—	—	—	—	—	—	—	—	—	—	—	1,093	1,093	0.07	0.01	—	1,097
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,487	1,487	0.09	0.01	—	1,493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
undefined	—	—	—	—	—	—	—	—	—	—	—	—	1,093	1,093	0.07	0.01	—	1,097
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,487	1,487	0.09	0.01	—	1,493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	43.4	43.4	< 0.005	< 0.005	—	43.5
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	5.47	5.47	< 0.005	< 0.005	—	5.49
undefined	—	—	—	—	—	—	—	—	—	—	—	—	181	181	0.01	< 0.005	—	182
Total	—	—	—	—	—	—	—	—	—	—	—	—	246	246	0.02	< 0.005	—	247

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	237	237	0.02	< 0.005	—	238
Unrefrigerated Warehouse-Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.9	89.9	0.01	< 0.005	—	90.2
Parking Lot	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
Total	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.03	< 0.005	—	328
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	237	237	0.02	< 0.005	—	238
Unrefrigerated Warehouse-Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.9	89.9	0.01	< 0.005	—	90.2
Parking Lot	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
Total	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.03	< 0.005	—	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	39.2	39.2	< 0.005	< 0.005	—	39.4
Unrefrigerated Warehouse-Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Parking Lot	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
Total	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.1	54.1	< 0.005	< 0.005	—	54.3

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	237	237	0.02	< 0.005	—	238
Unrefrigerated Warehouse-Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.9	89.9	0.01	< 0.005	—	90.2
Parking Lot	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
Total	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.03	< 0.005	—	328
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	237	237	0.02	< 0.005	—	238
Unrefrigerated Warehouse-Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	89.9	89.9	0.01	< 0.005	—	90.2
Parking Lot	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
Total	0.03	0.02	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.03	< 0.005	—	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	39.2	39.2	< 0.005	< 0.005	—	39.4
Unrefrigerated Warehouse-Rail	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	14.9

Parking Lot	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
Total	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.1	54.1	< 0.005	< 0.005	—	54.3

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.41	0.38	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Total	0.41	1.67	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.05	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Total	0.05	0.28	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09

4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.41	0.38	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Total	0.41	1.67	0.02	2.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.05	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Total	0.05	0.28	< 0.005	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.85	17.3	20.2	0.29	0.01	—	29.7
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.08	5.61	6.69	0.11	< 0.005	—	10.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9

4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	—	2.85	17.3	20.2	0.29	0.01	—	29.7
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.08	5.61	6.69	0.11	< 0.005	—	10.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.26	0.00	3.26	0.33	0.00	—	11.4
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7

4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.26	0.00	3.26	0.33	0.00	—	11.4

Unrefrige Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	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
Total	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

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	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
Total	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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2024	1/30/2024	5.00	20.0	—
Site Preparation	Site Preparation	1/31/2024	2/6/2024	5.00	5.00	—
Grading	Grading	2/8/2024	2/21/2024	5.00	10.0	—
Building Construction	Building Construction	2/22/2024	12/18/2024	5.00	215	—
Paving	Paving	12/19/2024	1/2/2025	5.00	10.0	—
Architectural Coating	Architectural Coating	1/3/2025	1/17/2025	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	7.00	367	0.40
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40

Grading	Tractors/Loaders/Backh	Diesel	Tier 4 Interim	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Interim	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Interim	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	10.2	HHDT,MHDT
Demolition	Hauling	2.05	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Demolition	Worker	14.0	18.5	LDA,LDT1,LDT2
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2

Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Site Preparation	Worker	6.00	18.5	LDA,LDT1,LDT2
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	3.00	10.2	HHDT,MHDT
Grading	Hauling	10.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	22.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	8.80	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Building Construction	Worker	24.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.0	10.2	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	14.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	10.2	HHDT,MHDT
Demolition	Hauling	2.05	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Demolition	Worker	14.0	18.5	LDA,LDT1,LDT2
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Site Preparation	Worker	6.00	18.5	LDA,LDT1,LDT2
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	3.00	10.2	HHDT,MHDT
Grading	Hauling	10.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	22.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	8.80	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Building Construction	Worker	24.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.0	10.2	HHDT,MHDT
Paving	—	—	—	—

Paving	Worker	14.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,500	—
Site Preparation	—	—	4.69	0.00	—
Grading	864	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.59

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-Rail	0.00	0%
Parking Lot	0.59	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	66.5	66.5	66.5	24,284	1,121	1,121	1,121	409,141
Unrefrigerated Warehouse-Rail	25.2	25.2	25.2	9,211	1,009	1,009	1,009	368,448
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Unrefrigerated Warehouse-No Rail	66.5	66.5	66.5	24,284	1,121	1,121	1,121	409,141
Unrefrigerated Warehouse-Rail	25.2	25.2	25.2	9,211	1,009	1,009	1,009	368,448
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	80,499	26,833	1,552

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	179,704	532	0.0330	0.0040	739,668
Unrefrigerated Warehouse-Rail	68,163	532	0.0330	0.0040	280,560
Parking Lot	22,666	532	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	179,704	532	0.0330	0.0040	739,668
Unrefrigerated Warehouse-Rail	68,163	532	0.0330	0.0040	280,560
Parking Lot	22,666	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	8,997,475	2,003,986
Unrefrigerated Warehouse-Rail	3,412,788	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	8,997,475	2,003,986
Unrefrigerated Warehouse-Rail	3,412,788	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	36.6	—
Unrefrigerated Warehouse-Rail	13.9	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	36.6	—
Unrefrigerated Warehouse-Rail	13.9	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Electric	Average	7.00	24.0	82.0	0.20

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Electric	Average	7.00	24.0	82.0	0.20

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	26.6	annual days of extreme heat
Extreme Precipitation	4.20	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.46	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	100
AQ-PM	56.0
AQ-DPM	41.9

Drinking Water	85.2
Lead Risk Housing	83.8
Pesticides	0.00
Toxic Releases	45.9
Traffic	16.0
Effect Indicators	—
CleanUp Sites	68.9
Groundwater	22.1
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	12.5
Solid Waste	52.9
Sensitive Population	—
Asthma	61.4
Cardio-vascular	77.6
Low Birth Weights	86.5
Socioeconomic Factor Indicators	—
Education	75.1
Housing	74.0
Linguistic	56.9
Poverty	85.7
Unemployment	58.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	16.34800462

Employed	11.27935327
Median HI	8.725779546
Education	—
Bachelor's or higher	7.442576671
High school enrollment	100
Preschool enrollment	10.18863082
Transportation	—
Auto Access	9.829334018
Active commuting	32.28538432
Social	—
2-parent households	24.66315925
Voting	10.31695111
Neighborhood	—
Alcohol availability	28.07647889
Park access	55.92198127
Retail density	34.69780572
Supermarket access	70.70447838
Tree canopy	5.017323239
Housing	—
Homeownership	34.7747979
Housing habitability	24.54767099
Low-inc homeowner severe housing cost burden	90.72244322
Low-inc renter severe housing cost burden	15.32144232
Uncrowded housing	21.89144104
Health Outcomes	—
Insured adults	28.37161555
Arthritis	0.0

Asthma ER Admissions	25.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	12.7
Cognitively Disabled	22.1
Physically Disabled	55.6
Heart Attack ER Admissions	21.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	11.7
Elderly	71.6
English Speaking	51.4

Foreign-born	38.1
Outdoor Workers	48.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	67.0
Traffic Density	24.2
Traffic Access	23.0
Other Indices	—
Hardship	87.3
Other Decision Support	—
2016 Voting	9.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	81.0
Healthy Places Index Score for Project Location (b)	7.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

This table summarizes the points earned for each health and equity measure category, and the total possible points for each category. If N/A is selected for any measure(s), the total possible points in that category are reduced accordingly. The points for each category are then weighted on a 15-point scale to determine the score per category and a total weighted score.

Category	Number of Applicable Measures	Total Points Earned by Applicable Measures	Max Possible Points	Weighted Score

Community-Centered Development	5.00	0.00	25.0	0.00
Inclusive Engagement	6.00	0.00	30.0	0.00
Accountability	5.00	0.00	25.0	0.00
Construction Equity	6.00	0.00	30.0	0.00
Public Health and Air Quality	4.00	0.00	20.0	0.00
Inclusive Economics & Prosperity	4.00	0.00	20.0	0.00
Inclusive Communities	4.00	0.00	20.0	0.00
Total	34.0	0.00	170	0.00

Based on the weighted score of 0 out of a total 170 possible points, your project qualifies for the Acorn equity award level.
Organization(s) consulted by the user to complete the Health & Equity Scorecard:

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	a
Construction: Construction Phases	mod
Construction: Trips and VMT	m
Construction: Architectural Coatings	a
Construction: Off-Road Equipment	a
Construction: Dust From Material Movement	a

Operations: Vehicle Data	Tip rates and distances were revised to be consistent with the TIA
Operations: Fleet Mix	Modified to be consistent with the project's transportation analysis.
Operations: Off-Road Equipment	Information based on the SCAQMD warehouse Survey

5th Street and Central Avenue Warehouse Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5th Street and Central Avenue Warehouse
Construction Start Date	1/2/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	11.2
Location	34.10798204818093, -117.2191244532882
County	San Bernardino-South Coast
City	Highland
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5173
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-No Rail	38.9	1000sqft	1.00	38,908	124,788	—	—	—
Unrefrigerated Warehouse-Rail	14.8	1000sqft	0.34	14,758	0.00	—	—	—
Parking Lot	66.0	Space	0.59	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.63	1.36	9.98	12.5	0.02	0.37	0.37	0.75	0.35	0.09	0.44	—	2,422	2,422	0.12	0.07	2.08	2,449
Mit.	1.63	1.36	9.98	12.5	0.02	0.37	0.37	0.75	0.35	0.09	0.44	—	2,422	2,422	0.12	0.07	2.08	2,449
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.10	1.77	16.1	17.2	0.02	0.74	7.09	7.83	0.68	3.43	4.11	—	2,673	2,673	0.12	0.07	0.05	2,685

Mit.	2.10	1.77	16.1	17.2	0.02	0.74	2.77	3.51	0.68	1.34	2.02	—	2,673	2,673	0.12	0.07	0.05	2,685
% Reduced	—	—	—	—	—	—	61%	55%	—	61%	51%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.16	0.97	7.50	8.84	0.02	0.29	0.52	0.81	0.27	0.19	0.46	—	1,679	1,679	0.08	0.05	0.55	1,695
Mit.	1.16	0.97	7.50	8.84	0.02	0.29	0.35	0.64	0.27	0.11	0.38	—	1,679	1,679	0.08	0.05	0.55	1,695
% Reduced	—	—	—	—	—	—	33%	21%	—	43%	18%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	0.18	1.37	1.61	< 0.005	0.05	0.09	0.15	0.05	0.03	0.08	—	278	278	0.01	0.01	0.09	281
Mit.	0.21	0.18	1.37	1.61	< 0.005	0.05	0.06	0.12	0.05	0.02	0.07	—	278	278	0.01	0.01	0.09	281
% Reduced	—	—	—	—	—	—	33%	21%	—	43%	18%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.63	1.36	9.98	12.5	0.02	0.37	0.37	0.75	0.35	0.09	0.44	—	2,422	2,422	0.12	0.07	2.08	2,449
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.10	1.77	16.1	17.2	0.02	0.74	7.09	7.83	0.68	3.43	4.11	—	2,673	2,673	0.12	0.07	0.05	2,685
2025	0.63	0.69	4.64	6.62	0.01	0.20	0.00	0.20	0.19	0.00	0.19	—	994	994	0.04	0.01	0.00	998
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	1.16	0.97	7.50	8.84	0.02	0.29	0.52	0.81	0.27	0.19	0.46	—	1,679	1,679	0.08	0.05	0.55	1,695
2025	0.01	0.01	0.04	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	7.57	7.57	< 0.005	< 0.005	0.00	7.60
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.21	0.18	1.37	1.61	< 0.005	0.05	0.09	0.15	0.05	0.03	0.08	—	278	278	0.01	0.01	0.09	281
2025	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	1.25	1.25	< 0.005	< 0.005	0.00	1.26

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.63	1.36	9.98	12.5	0.02	0.37	0.37	0.75	0.35	0.09	0.44	—	2,422	2,422	0.12	0.07	2.08	2,449
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.10	1.77	16.1	17.2	0.02	0.74	2.77	3.51	0.68	1.34	2.02	—	2,673	2,673	0.12	0.07	0.05	2,685
2025	0.63	0.69	4.64	6.62	0.01	0.20	0.00	0.20	0.19	0.00	0.19	—	994	994	0.04	0.01	0.00	998
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.16	0.97	7.50	8.84	0.02	0.29	0.35	0.64	0.27	0.11	0.38	—	1,679	1,679	0.08	0.05	0.55	1,695
2025	0.01	0.01	0.04	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	7.57	7.57	< 0.005	< 0.005	0.00	7.60
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.21	0.18	1.37	1.61	< 0.005	0.05	0.06	0.12	0.05	0.02	0.07	—	278	278	0.01	0.01	0.09	281
2025	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	1.25	1.25	< 0.005	< 0.005	0.00	1.26

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.54	3.22	19.5	27.3	0.07	0.93	0.76	1.69	0.86	0.16	1.02	51.0	8,464	8,515	5.65	0.55	11.4	8,832
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.50	3.18	19.7	26.3	0.07	0.93	0.74	1.67	0.86	0.16	1.02	51.0	8,350	8,401	5.65	0.55	0.29	8,707
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.53	3.21	19.7	26.7	0.07	0.93	0.76	1.69	0.86	0.16	1.02	51.0	8,408	8,459	5.65	0.55	4.90	8,770
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.46	0.59	3.60	4.87	0.01	0.17	0.14	0.31	0.16	0.03	0.19	8.44	1,392	1,401	0.94	0.09	0.81	1,452

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,375	1,375	0.11	< 0.005	—	1,379
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.54	3.22	19.5	27.3	0.07	0.93	0.76	1.69	0.86	0.16	1.02	51.0	8,464	8,515	5.65	0.55	11.4	8,832

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,375	1,375	0.11	< 0.005	—	1,379
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.50	3.18	19.7	26.3	0.07	0.93	0.74	1.67	0.86	0.16	1.02	51.0	8,350	8,401	5.65	0.55	0.29	8,707
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.24	3.42	4.15	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,693	3,693	0.25	0.46	4.90	3,842
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,375	1,375	0.11	< 0.005	—	1,379
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.53	3.21	19.7	26.7	0.07	0.93	0.76	1.69	0.86	0.16	1.02	51.0	8,408	8,459	5.65	0.55	4.90	8,770
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636
Area	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	228	228	0.02	< 0.005	—	228
Water	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9
Waste	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7
Off-Road	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532
Total	0.46	0.59	3.60	4.87	0.01	0.17	0.14	0.31	0.16	0.03	0.19	8.44	1,392	1,401	0.94	0.09	0.81	1,452

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,375	1,375	0.11	< 0.005	—	1,379
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.54	3.22	19.5	27.3	0.07	0.93	0.76	1.69	0.86	0.16	1.02	51.0	8,464	8,515	5.65	0.55	11.4	8,832
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,375	1,375	0.11	< 0.005	—	1,379
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.50	3.18	19.7	26.3	0.07	0.93	0.74	1.67	0.86	0.16	1.02	51.0	8,350	8,401	5.65	0.55	0.29	8,707
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.24	3.42	4.15	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,693	3,693	0.25	0.46	4.90	3,842
Area	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,375	1,375	0.11	< 0.005	—	1,379
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241

Waste	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Off-Road	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	2.53	3.21	19.7	26.7	0.07	0.93	0.76	1.69	0.86	0.16	1.02	51.0	8,408	8,459	5.65	0.55	4.90	8,770
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636
Area	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	228	228	0.02	< 0.005	—	228
Water	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9
Waste	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7
Off-Road	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532
Total	0.46	0.59	3.60	4.87	0.01	0.17	0.14	0.31	0.16	0.03	0.19	8.44	1,392	1,401	0.94	0.09	0.81	1,452

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.92	1.61	15.6	16.0	0.02	0.67	—	0.67	0.62	—	0.62	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.17	0.17	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	0.88	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.09	1.07	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	170	170	0.01	0.01	0.02	173
Vendor	< 0.005	< 0.005	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	4.47	4.47	< 0.005	< 0.005	0.00	4.74
Hauling	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.04	5.04	< 0.005	< 0.005	< 0.005	5.36
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.43	9.43	< 0.005	< 0.005	0.02	9.60
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.24	0.24	< 0.005	< 0.005	0.00	0.26
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.29
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.56	1.56	< 0.005	< 0.005	< 0.005	1.59

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.04	0.04	< 0.005	< 0.005	0.00	0.04
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.92	1.61	15.6	16.0	0.02	0.67	—	0.67	0.62	—	0.62	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.17	0.17	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	0.88	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.09	1.07	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	170	170	0.01	0.01	0.02	173
Vendor	< 0.005	< 0.005	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	4.47	4.47	< 0.005	< 0.005	0.00	4.74
Hauling	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.04	5.04	< 0.005	< 0.005	< 0.005	5.36
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.43	9.43	< 0.005	< 0.005	0.02	9.60
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.24	0.24	< 0.005	< 0.005	0.00	0.26
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.29
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.56	1.56	< 0.005	< 0.005	< 0.005	1.59
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.04	0.04	< 0.005	< 0.005	0.00	0.04
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	1.31	12.5	11.0	0.02	0.59	—	0.59	0.54	—	0.54	—	1,773	1,773	0.07	0.01	—	1,779
Dust From Material Movement	—	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.3	24.3	< 0.005	< 0.005	—	24.4
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.04	0.49	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.9	68.9	0.01	< 0.005	0.01	70.3
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.73	6.73	< 0.005	< 0.005	< 0.005	7.10
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	0.98
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.10
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.16
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Hauling	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	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	1.31	12.5	11.0	0.02	0.59	—	0.59	0.54	—	0.54	—	1,773	1,773	0.07	0.01	—	1,779

Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.3	24.3	< 0.005	< 0.005	—	24.4
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.04	0.49	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.9	68.9	0.01	< 0.005	0.01	70.3
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.73	6.73	< 0.005	< 0.005	< 0.005	7.10
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	0.98
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.10
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.16
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Hauling	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	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.96	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movemen:	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.44	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.2	67.2	< 0.005	< 0.005	—	67.5

Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.2
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	1.84	1.84	< 0.005	< 0.005	0.00	2.16
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.73	6.73	< 0.005	< 0.005	< 0.005	7.10
Hauling	0.02	0.01	0.16	0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.6	26.6	0.01	< 0.005	< 0.005	28.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	0.00	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.19
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.77
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.01	0.01	< 0.005	< 0.005	0.00	0.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.13

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.96	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movemen:	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.44	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.2	67.2	< 0.005	< 0.005	—	67.5
Dust From Material Movemen:	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.2

Dust From Material Movemen:	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	1.84	1.84	< 0.005	< 0.005	0.00	2.16
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.73	6.73	< 0.005	< 0.005	< 0.005	7.10
Hauling	0.02	0.01	0.16	0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.6	26.6	0.01	< 0.005	< 0.005	28.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	0.00	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.19
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.77
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.01	0.01	< 0.005	< 0.005	0.00	0.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.13

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	5.56	5.95	0.01	0.22	—	0.22	0.20	—	0.20	—	1,061	1,061	0.04	0.01	—	1,065
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.01	1.09	< 0.005	0.04	—	0.04	0.04	—	0.04	—	176	176	0.01	< 0.005	—	176
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.21	0.13	2.12	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	329	329	0.02	0.01	1.30	335
Vendor	0.04	0.01	0.42	0.25	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	292	292	0.03	0.04	0.79	307
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.20	0.15	1.69	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	302	302	0.02	0.01	0.03	306
Vendor	0.04	0.01	0.43	0.25	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	293	293	0.03	0.04	0.02	306
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.04	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	180	180	0.01	0.01	0.33	183
Vendor	0.02	0.01	0.26	0.15	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	172	172	0.02	0.03	0.20	181
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.8	29.8	< 0.005	< 0.005	0.05	30.3
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.5	28.5	< 0.005	< 0.005	0.03	29.9
Hauling	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	0.00

3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	5.56	5.95	0.01	0.22	—	0.22	0.20	—	0.20	—	1,061	1,061	0.04	0.01	—	1,065
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.01	1.09	< 0.005	0.04	—	0.04	0.04	—	0.04	—	176	176	0.01	< 0.005	—	176
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.21	0.13	2.12	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	329	329	0.02	0.01	1.30	335
Vendor	0.04	0.01	0.42	0.25	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	292	292	0.03	0.04	0.79	307
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.20	0.15	1.69	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	302	302	0.02	0.01	0.03	306
Vendor	0.04	0.01	0.43	0.25	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	293	293	0.03	0.04	0.02	306
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.04	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	180	180	0.01	0.01	0.33	183
Vendor	0.02	0.01	0.26	0.15	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	172	172	0.02	0.03	0.20	181

Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.8	29.8	< 0.005	< 0.005	0.05	30.3
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.5	28.5	< 0.005	< 0.005	0.03	29.9
Hauling	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	0.00

3.9. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.2	25.2	< 0.005	< 0.005	—	25.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.18	4.18	< 0.005	< 0.005	—	4.19

Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	2.30	2.30	< 0.005	< 0.005	0.00	2.70
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.06	0.06	< 0.005	< 0.005	0.00	0.07
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.01	0.01	< 0.005	< 0.005	0.00	0.01
Vendor	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	0.00
Hauling	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	0.00

3.10. Paving (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.2	25.2	< 0.005	< 0.005	—	25.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.18	4.18	< 0.005	< 0.005	—	4.19
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	2.30	2.30	< 0.005	< 0.005	0.00	2.70
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.06	0.06	< 0.005	< 0.005	0.00	0.07
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.01	0.01	< 0.005	< 0.005	0.00	0.01
Vendor	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	0.00
Hauling	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	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.63	6.50	0.01	0.20	—	0.20	0.19	—	0.19	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.89
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.64
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	2.25	2.25	< 0.005	< 0.005	0.00	2.64
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.01	0.01	< 0.005	< 0.005	0.00	0.01
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005
Vendor	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	0.00
Hauling	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	0.00

3.12. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.63	6.50	0.01	0.20	—	0.20	0.19	—	0.19	—	992	992	0.04	0.01	—	995
Paving	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.89
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.64
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	2.25	2.25	< 0.005	< 0.005	0.00	2.64
Vendor	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	0.00

Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.01	0.01	< 0.005	< 0.005	0.00	0.01
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005
Vendor	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	0.00
Hauling	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	0.00

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	< 0.005	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.81	0.81	< 0.005	< 0.005	0.00	0.95
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.02	0.02	< 0.005	< 0.005	0.00	0.03
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005
Vendor	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	0.00
Hauling	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	0.00

3.14. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	< 0.005	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.81	0.81	< 0.005	< 0.005	0.00	0.95
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.02	0.02	< 0.005	< 0.005	0.00	0.03
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.20	0.19	0.16	3.11	0.01	< 0.005	0.30	0.30	< 0.005	0.05	0.05	—	816	816	0.02	0.02	2.97	824
Unrefrigerated Warehouse-Rail	0.30	0.06	3.06	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,933	2,933	0.23	0.44	8.38	3,080
Parking Lot	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	0.00
Total	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.16	0.15	0.15	2.05	0.01	< 0.005	0.28	0.29	< 0.005	0.05	0.05	—	701	701	0.02	0.02	0.07	706
Unrefrigerated Warehouse-Rail	0.30	0.06	3.20	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,934	2,934	0.23	0.44	0.22	3,072
Parking Lot	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	0.00
Total	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.03	0.03	0.45	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	126	126	< 0.005	< 0.005	0.21	127
Unrefrigerated Warehouse-Rail	0.06	0.01	0.59	0.30	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	486	486	0.04	0.07	0.60	509
Parking Lot	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	0.00
Total	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.20	0.19	0.16	3.11	0.01	< 0.005	0.30	0.30	< 0.005	0.05	0.05	—	816	816	0.02	0.02	2.97	824
Unrefrigerated Warehouse-Rail	0.30	0.06	3.06	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,933	2,933	0.23	0.44	8.38	3,080
Parking Lot	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	0.00
Total	0.51	0.25	3.22	4.77	0.03	0.05	0.76	0.81	0.05	0.16	0.21	—	3,749	3,749	0.25	0.46	11.4	3,904
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.16	0.15	0.15	2.05	0.01	< 0.005	0.28	0.29	< 0.005	0.05	0.05	—	701	701	0.02	0.02	0.07	706
Unrefrigerated Warehouse-Rail	0.30	0.06	3.20	1.66	0.03	0.04	0.46	0.51	0.04	0.11	0.15	—	2,934	2,934	0.23	0.44	0.22	3,072
Parking Lot	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	0.00
Total	0.46	0.21	3.35	3.71	0.03	0.05	0.74	0.79	0.05	0.16	0.20	—	3,635	3,635	0.25	0.46	0.29	3,779
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.03	0.03	0.45	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	126	126	< 0.005	< 0.005	0.21	127

Unrefrige Warehouse-Rail	0.06	0.01	0.59	0.30	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	486	486	0.04	0.07	0.60	509
Parking Lot	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	0.00
Total	0.09	0.04	0.62	0.76	0.01	0.01	0.14	0.15	0.01	0.03	0.04	—	611	611	0.04	0.08	0.81	636

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	394	394	0.02	< 0.005	—	396
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263

Unrefrige Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	394	394	0.02	< 0.005	—	396
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	43.4	43.4	< 0.005	< 0.005	—	43.5
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	5.47	5.47	< 0.005	< 0.005	—	5.49
Total	—	—	—	—	—	—	—	—	—	—	—	—	65.3	65.3	< 0.005	< 0.005	—	65.5

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	394	394	0.02	< 0.005	—	396
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	262	262	0.02	< 0.005	—	263
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	394	394	0.02	< 0.005	—	396
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	43.4	43.4	< 0.005	< 0.005	—	43.5
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	5.47	5.47	< 0.005	< 0.005	—	5.49
Total	—	—	—	—	—	—	—	—	—	—	—	—	65.3	65.3	< 0.005	< 0.005	—	65.5

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Unrefrigerated Warehouse-Rail	0.02	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	270	270	0.02	< 0.005	—	270
Parking Lot	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
Total	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	981	981	0.09	< 0.005	—	984
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Unrefrigerated Warehouse-Rail	0.02	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	270	270	0.02	< 0.005	—	270
Parking Lot	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
Total	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	981	981	0.09	< 0.005	—	984
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Unrefrigerated Warehouse-Rail	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	44.7	44.7	< 0.005	< 0.005	—	44.8
Parking Lot	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
Total	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	162	162	0.01	< 0.005	—	163

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Unrefrigerated Warehouse-Rail	0.02	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	270	270	0.02	< 0.005	—	270
Parking Lot	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
Total	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	981	981	0.09	< 0.005	—	984
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Unrefrigerated Warehouse-Rail	0.02	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	270	270	0.02	< 0.005	—	270
Parking Lot	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
Total	0.09	0.05	0.82	0.69	< 0.005	0.06	—	0.06	0.06	—	0.06	—	981	981	0.09	< 0.005	—	984
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Unrefrigerated Warehouse-Rail	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	44.7	44.7	< 0.005	< 0.005	—	44.8
Parking Lot	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
Total	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	162	162	0.01	< 0.005	—	163

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179

Unrefrige Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.85	17.3	20.2	0.29	0.01	—	29.7
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.08	5.61	6.69	0.11	< 0.005	—	10.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9

4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.2	105	122	1.77	0.04	—	179
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	6.54	33.9	40.4	0.67	0.02	—	62.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	139	162	2.45	0.06	—	241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	—	2.85	17.3	20.2	0.29	0.01	—	29.7
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.08	5.61	6.69	0.11	< 0.005	—	10.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.94	23.0	26.9	0.41	0.01	—	39.9

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.26	0.00	3.26	0.33	0.00	—	11.4
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7

4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.7	0.00	19.7	1.97	0.00	—	69.0
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	7.48	0.00	7.48	0.75	0.00	—	26.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	0.00	27.2	2.72	0.00	—	95.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.26	0.00	3.26	0.33	0.00	—	11.4

Unrefrige Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.50	0.00	4.50	0.45	0.00	—	15.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532
Total	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Total	1.95	1.64	15.5	21.9	0.03	0.82	—	0.82	0.75	—	0.75	—	3,202	3,202	0.13	0.03	—	3,213
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532
Total	0.36	0.30	2.83	3.99	0.01	0.15	—	0.15	0.14	—	0.14	—	530	530	0.02	< 0.005	—	532

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2024	1/30/2024	5.00	20.0	—
Site Preparation	Site Preparation	1/31/2024	2/6/2024	5.00	5.00	—
Grading	Grading	2/8/2024	2/21/2024	5.00	10.0	—
Building Construction	Building Construction	2/22/2024	12/18/2024	5.00	215	—
Paving	Paving	12/19/2024	1/2/2025	5.00	10.0	—
Architectural Coating	Architectural Coating	1/3/2025	1/17/2025	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Grading	Tractors/Loaders/Backh	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	0.00	HHDT,MHDT
Demolition	Hauling	2.05	0.19	HHDT
Demolition	Onsite truck	—	—	HHDT
Demolition	Worker	26.0	0.00	LDA,LDT1,LDT2
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2

Site Preparation	Vendor	4.00	0.19	HHDT,MHDT
Site Preparation	Hauling	0.00	0.19	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Site Preparation	Worker	16.0	0.00	LDA,LDT1,LDT2
Grading	—	—	—	—
Grading	Worker	10.0	0.00	LDA,LDT1,LDT2
Grading	Vendor	4.00	0.19	HHDT,MHDT
Grading	Hauling	10.8	0.19	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	22.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	8.80	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	0.00	HHDT
Building Construction	Onsite truck	—	—	HHDT
Building Construction	Worker	24.0	0.00	LDA,LDT1,LDT2
Building Construction	Vendor	10.0	0.19	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	12.5	0.00	LDA,LDT1,LDT2
Paving	Vendor	—	0.19	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.51	0.00	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.19	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.19	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	0.00	HHDT,MHDT
Demolition	Hauling	2.05	0.19	HHDT
Demolition	Onsite truck	—	—	HHDT
Demolition	Worker	26.0	0.00	LDA,LDT1,LDT2
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	0.19	HHDT,MHDT
Site Preparation	Hauling	0.00	0.19	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Site Preparation	Worker	16.0	0.00	LDA,LDT1,LDT2
Grading	—	—	—	—
Grading	Worker	10.0	0.00	LDA,LDT1,LDT2
Grading	Vendor	4.00	0.19	HHDT,MHDT
Grading	Hauling	10.8	0.19	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	22.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	8.80	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	0.00	HHDT
Building Construction	Onsite truck	—	—	HHDT
Building Construction	Worker	24.0	0.00	LDA,LDT1,LDT2
Building Construction	Vendor	10.0	0.19	HHDT,MHDT
Paving	—	—	—	—

Paving	Worker	12.5	0.00	LDA,LDT1,LDT2
Paving	Vendor	—	0.19	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.51	0.00	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.19	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.19	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,500	—
Site Preparation	—	—	4.69	0.00	—
Grading	864	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.59

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-Rail	0.00	0%
Parking Lot	0.59	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	66.5	66.5	66.5	24,284	1,121	1,121	1,121	409,141
Unrefrigerated Warehouse-Rail	25.2	25.2	25.2	9,211	1,009	1,009	1,009	368,448
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	66.5	66.5	66.5	24,284	1,121	1,121	1,121	409,141
Unrefrigerated Warehouse-Rail	25.2	25.2	25.2	9,211	1,009	1,009	1,009	368,448
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	80,499	26,833	1,552

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	179,704	532	0.0330	0.0040	739,668
Unrefrigerated Warehouse-Rail	68,163	532	0.0330	0.0040	280,560
Parking Lot	22,666	532	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	179,704	532	0.0330	0.0040	739,668
Unrefrigerated Warehouse-Rail	68,163	532	0.0330	0.0040	280,560
Parking Lot	22,666	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	8,997,475	2,003,986
Unrefrigerated Warehouse-Rail	3,412,788	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	8,997,475	2,003,986
Unrefrigerated Warehouse-Rail	3,412,788	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	36.6	—
Unrefrigerated Warehouse-Rail	13.9	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	36.6	—
Unrefrigerated Warehouse-Rail	13.9	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	7.00	24.0	82.0	0.20

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	7.00	24.0	82.0	0.20

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	26.6	annual days of extreme heat
Extreme Precipitation	4.20	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.46	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	100

AQ-PM	56.0
AQ-DPM	41.9
Drinking Water	85.2
Lead Risk Housing	83.8
Pesticides	0.00
Toxic Releases	45.9
Traffic	16.0
Effect Indicators	—
CleanUp Sites	68.9
Groundwater	22.1
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	12.5
Solid Waste	52.9
Sensitive Population	—
Asthma	61.4
Cardio-vascular	77.6
Low Birth Weights	86.5
Socioeconomic Factor Indicators	—
Education	75.1
Housing	74.0
Linguistic	56.9
Poverty	85.7
Unemployment	58.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	16.34800462
Employed	11.27935327
Median HI	8.725779546
Education	—
Bachelor's or higher	7.442576671
High school enrollment	100
Preschool enrollment	10.18863082
Transportation	—
Auto Access	9.829334018
Active commuting	32.28538432
Social	—
2-parent households	24.66315925
Voting	10.31695111
Neighborhood	—
Alcohol availability	28.07647889
Park access	55.92198127
Retail density	34.69780572
Supermarket access	70.70447838
Tree canopy	5.017323239
Housing	—
Homeownership	34.7747979
Housing habitability	24.54767099
Low-inc homeowner severe housing cost burden	90.72244322
Low-inc renter severe housing cost burden	15.32144232
Uncrowded housing	21.89144104
Health Outcomes	—

Insured adults	28.37161555
Arthritis	0.0
Asthma ER Admissions	25.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	12.7
Cognitively Disabled	22.1
Physically Disabled	55.6
Heart Attack ER Admissions	21.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	11.7

Elderly	71.6
English Speaking	51.4
Foreign-born	38.1
Outdoor Workers	48.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	67.0
Traffic Density	24.2
Traffic Access	23.0
Other Indices	—
Hardship	87.3
Other Decision Support	—
2016 Voting	9.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	81.0
Healthy Places Index Score for Project Location (b)	7.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

This table summarizes the points earned for each health and equity measure category, and the total possible points for each category. If N/A is selected for any measure(s), the total possible points in that category are reduced accordingly. The points for each category are then weighted on a 15-point scale to determine the score per category and a total weighted score.

Category	Number of Applicable Measures	Total Points Earned by Applicable Measures	Max Possible Points	Weighted Score
Community-Centered Development	5.00	0.00	25.0	0.00
Inclusive Engagement	6.00	0.00	30.0	0.00
Accountability	5.00	0.00	25.0	0.00
Construction Equity	6.00	0.00	30.0	0.00
Public Health and Air Quality	4.00	0.00	20.0	0.00
Inclusive Economics & Prosperity	4.00	0.00	20.0	0.00
Inclusive Communities	4.00	0.00	20.0	0.00
Total	34.0	0.00	170	0.00

Based on the weighted score of 0 out of a total 170 possible points, your project qualifies for the Acorn equity award level.
Organization(s) consulted by the user to complete the Health & Equity Scorecard:

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	a
Construction: Construction Phases	mod
Construction: Trips and VMT	m

Construction: Architectural Coatings	a
Construction: Off-Road Equipment	a
Construction: Dust From Material Movement	a
Operations: Vehicle Data	Tip rates and distances were revised to be consistent with the TIA
Operations: Fleet Mix	Modified to be consistent with the project's transportation analysis.
Operations: Off-Road Equipment	Information based on the SCAQMD warehouse Survey

Appendix A-2

Construction and Operational Health Risk Assessments

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**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 6/1/2023
** File: C:\Users\nlorenzen\Desktop\HARP2\5th and Central
Warehouse\5th and Central Warehouse.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\nlorenzen\Desktop\HARP2\5th and Central
Warehouse\5th and C
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   URBANOPT 2035210
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "5th and Central Warehouse.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------------
--
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Construction: Trucks and Equipment
** PREFIX
** Length of Side = 9.00
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 10.00
** SZINIT = 4.65
** Nodes = 39
** 479742.616, 3774167.095, 354.30, 5.00, 4.19
** 479786.787, 3774182.600, 355.15, 5.00, 4.19
** 479859.083, 3774179.535, 355.30, 5.00, 4.19
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** 479742.796, 3774164.751, 354.30, 5.00, 4.19
** 479786.426, 3774178.633, 355.15, 5.00, 4.19
** 479853.494, 3774176.109, 355.35, 5.00, 4.19
** 479853.494, 3774111.385, 354.69, 5.00, 4.19
** 479746.943, 3774114.270, 353.87, 5.00, 4.19
** 479746.762, 3774161.506, 354.32, 5.00, 4.19
** 479787.688, 3774173.946, 355.08, 5.00, 4.19
** 479846.823, 3774172.323, 355.35, 5.00, 4.19
** 479847.184, 3774117.515, 354.67, 5.00, 4.19
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** 479760.464, 3774127.070, 354.38, 5.00, 4.19
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** 479786.967, 3774159.703, 355.02, 5.00, 4.19
** 479829.335, 3774160.063, 355.28, 5.00, 4.19
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** 479765.873, 3774131.758, 354.51, 5.00, 4.19
** 479764.791, 3774152.311, 354.76, 5.00, 4.19
** 479786.967, 3774155.376, 354.98, 5.00, 4.19
** 479824.107, 3774155.736, 355.02, 5.00, 4.19
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** 479769.118, 3774136.085, 354.64, 5.00, 4.19
** 479769.118, 3774149.607, 354.70, 5.00, 4.19
** 479819.780, 3774151.770, 354.94, 5.00, 4.19
** 479819.059, 3774144.198, 354.84, 5.00, 4.19
** 479775.248, 3774143.837, 354.76, 5.00, 4.19
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   LOCATION L0000002     VOLUME   479755.354 3774171.566 354.49
   LOCATION L0000003     VOLUME   479763.846 3774174.547 354.70
   LOCATION L0000004     VOLUME   479772.338 3774177.528 354.91
   LOCATION L0000005     VOLUME   479780.830 3774180.509 355.01
   LOCATION L0000006     VOLUME   479789.471 3774182.486 355.10
   LOCATION L0000007     VOLUME   479798.463 3774182.105 355.19
   LOCATION L0000008     VOLUME   479807.455 3774181.723 355.21
   LOCATION L0000009     VOLUME   479816.447 3774181.342 355.23
   LOCATION L0000010     VOLUME   479825.439 3774180.961 355.24
   LOCATION L0000011     VOLUME   479834.431 3774180.580 355.26
   LOCATION L0000012     VOLUME   479843.422 3774180.199 355.29
   LOCATION L0000013     VOLUME   479852.414 3774179.817 355.33
   LOCATION L0000014     VOLUME   479859.066 3774177.209 355.41
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LOCATION L0000015 VOLUME 479858.998 3774168.210 355.39
LOCATION L0000016 VOLUME 479858.931 3774159.210 355.30
LOCATION L0000017 VOLUME 479858.864 3774150.210 355.21
LOCATION L0000018 VOLUME 479858.796 3774141.210 355.12
LOCATION L0000019 VOLUME 479858.729 3774132.211 355.03
LOCATION L0000020 VOLUME 479858.662 3774123.211 354.94
LOCATION L0000021 VOLUME 479858.594 3774114.211 354.84
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   LOCATION L0000179     VOLUME   479787.350 3774131.697 354.55
   LOCATION L0000180     VOLUME   479778.350 3774131.723 354.51
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   LOCATION L0000182     VOLUME   479765.583 3774137.273 354.49
   LOCATION L0000183     VOLUME   479765.110 3774146.261 354.61
   LOCATION L0000184     VOLUME   479767.705 3774152.714 354.69
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** Source Parameters **
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SRCPARAM L0000120     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000121     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000122     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000123     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000124     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000125     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000126     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000127     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000128     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000129     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000130     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000131     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000132     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000133     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000134     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000135     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000136     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000137     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000138     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000139     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000140     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000141     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000142     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000143     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000144     0.0047393365      5.00      4.19      4.65
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SRCPARAM L0000146     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000147     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000148     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000149     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000150     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000151     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000152     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000153     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000154     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000155     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000156     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000157     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000158     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000159     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000160     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000161     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000162     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000163     0.0047393365      5.00      4.19      4.65
SRCPARAM L0000164     0.0047393365      5.00      4.19      4.65
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   SRCPARAM L0000179     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000180     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000181     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000182     0.0047393365      5.00      4.19      4.65
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   SRCPARAM L0000185     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000186     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000187     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000188     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000189     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000190     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000191     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000192     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000193     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000194     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000195     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000196     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000197     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000198     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000199     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000200     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000201     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000202     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000203     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000204     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000205     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000206     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000207     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000208     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000209     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000210     0.0047393365      5.00      4.19      4.65
   SRCPARAM L0000211     0.0047393365      5.00      4.19      4.65
** ------------------------------------------------------------------
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   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
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** AERMOD Receptor Pathway
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**
**
RE STARTING
   INCLUDED "5th and Central Warehouse.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
** Surface File Path: C:\Users\nlorenzen\Desktop\HARP2\5th and Central
Warehouse\Met\RDLD_V9_ADJU\
   SURFFILE Met\RDLD_V9_ADJU\RDLD_v9.SFC
** Profile File Path: C:\Users\nlorenzen\Desktop\HARP2\5th and Central
Warehouse\Met\RDLD_V9_ADJU\
   PROFFILE Met\RDLD_V9_ADJU\RDLD_v9.PFL
   SURFDATA 3171 2012
   UAIRDATA 3190 2012
   SITEDATA 99999 2012
   PROFBASE 481.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "C:\Users\nlorenzen\Desktop\HARP2\5th and
Central Warehouse\5th and Central Warehouse.AD\01H1GALL.PLT" 31
   PLOTFILE PERIOD ALL "C:\Users\nlorenzen\Desktop\HARP2\5th and
Central Warehouse\5th and Central Warehouse.AD\PE00GALL.PLT" 32
   SUMMFILE "C:\Users\nlorenzen\Desktop\HARP2\5th and Central
Warehouse\5th and Central Warehouse.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
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** UNITS    m
** ZONE     11
** ZONEINX  0
**
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**HARP - Air Dispersion Modeling and Risk Tool v22118
**5/24/2023
**Exported Risk Results

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RISI	SOIL_RISK
442	ALL		479902.1	3774140.81	5.68E-06	1.08YrCanc	5.68E-06	0
445	ALL		479790	3774229.8	5.55E-06	1.08YrCanc	5.55E-06	0
444	ALL		479757.9	3774229.8	4.78E-06	1.08YrCanc	4.78E-06	0
446	ALL		479826.2	3774239.15	4.51E-06	1.08YrCanc	4.51E-06	0
443	ALL		479886.7	3774070.92	4.06E-06	1.08YrCanc	4.06E-06	0
447	ALL		479857.9	3774248.9	3.29E-06	1.08YrCanc	3.29E-06	0
20	ALL	UCART1	479802.5	3774263.03	3.15E-06	1.08YrCanc	3.15E-06	0
21	ALL	UCART1	479836.8	3774263.03	2.97E-06	1.08YrCanc	2.97E-06	0
19	ALL	UCART1	479768.2	3774263.03	2.97E-06	1.08YrCanc	2.97E-06	0
18	ALL	UCART1	479733.9	3774263.03	2.53E-06	1.08YrCanc	2.53E-06	0
41	ALL	UCART1	479802.5	3774280.72	2.47E-06	1.08YrCanc	2.47E-06	0
40	ALL	UCART1	479768.2	3774280.72	2.35E-06	1.08YrCanc	2.35E-06	0
42	ALL	UCART1	479836.8	3774280.72	2.35E-06	1.08YrCanc	2.35E-06	0
448	ALL		479891.2	3774259.87	2.30E-06	1.08YrCanc	2.30E-06	0
39	ALL	UCART1	479733.9	3774280.72	2.07E-06	1.08YrCanc	2.07E-06	0
17	ALL	UCART1	479699.6	3774263.03	2.01E-06	1.08YrCanc	2.01E-06	0
62	ALL	UCART1	479802.5	3774298.41	1.99E-06	1.08YrCanc	1.99E-06	0
61	ALL	UCART1	479768.2	3774298.41	1.92E-06	1.08YrCanc	1.92E-06	0
63	ALL	UCART1	479836.8	3774298.41	1.91E-06	1.08YrCanc	1.91E-06	0
60	ALL	UCART1	479733.9	3774298.41	1.73E-06	1.08YrCanc	1.73E-06	0
38	ALL	UCART1	479699.6	3774280.72	1.72E-06	1.08YrCanc	1.72E-06	0
83	ALL	UCART1	479802.5	3774316.1	1.65E-06	1.08YrCanc	1.65E-06	0
82	ALL	UCART1	479768.2	3774316.1	1.60E-06	1.08YrCanc	1.60E-06	0
84	ALL	UCART1	479836.8	3774316.1	1.59E-06	1.08YrCanc	1.59E-06	0
16	ALL	UCART1	479665.3	3774263.03	1.57E-06	1.08YrCanc	1.57E-06	0
59	ALL	UCART1	479699.6	3774298.41	1.48E-06	1.08YrCanc	1.48E-06	0
81	ALL	UCART1	479733.9	3774316.1	1.47E-06	1.08YrCanc	1.47E-06	0
104	ALL	UCART1	479802.5	3774333.79	1.39E-06	1.08YrCanc	1.39E-06	0
37	ALL	UCART1	479665.3	3774280.72	1.39E-06	1.08YrCanc	1.39E-06	0
103	ALL	UCART1	479768.2	3774333.79	1.36E-06	1.08YrCanc	1.36E-06	0
105	ALL	UCART1	479836.8	3774333.79	1.35E-06	1.08YrCanc	1.35E-06	0
80	ALL	UCART1	479699.6	3774316.1	1.29E-06	1.08YrCanc	1.29E-06	0
102	ALL	UCART1	479733.9	3774333.79	1.26E-06	1.08YrCanc	1.26E-06	0
58	ALL	UCART1	479665.3	3774298.41	1.23E-06	1.08YrCanc	1.23E-06	0
15	ALL	UCART1	479631	3774263.03	1.23E-06	1.08YrCanc	1.23E-06	0
125	ALL	UCART1	479802.5	3774351.48	1.19E-06	1.08YrCanc	1.19E-06	0
124	ALL	UCART1	479768.2	3774351.48	1.17E-06	1.08YrCanc	1.17E-06	0
126	ALL	UCART1	479836.8	3774351.48	1.16E-06	1.08YrCanc	1.16E-06	0
101	ALL	UCART1	479699.6	3774333.79	1.13E-06	1.08YrCanc	1.13E-06	0
36	ALL	UCART1	479631	3774280.72	1.12E-06	1.08YrCanc	1.12E-06	0
79	ALL	UCART1	479665.3	3774316.1	1.10E-06	1.08YrCanc	1.10E-06	0
123	ALL	UCART1	479733.9	3774351.48	1.10E-06	1.08YrCanc	1.10E-06	0
146	ALL	UCART1	479802.5	3774369.17	1.03E-06	1.08YrCanc	1.03E-06	0

57	ALL	UCART1	479631	3774298.41	1.02E-06	1.08YrCanc	1.02E-06	0
145	ALL	UCART1	479768.2	3774369.17	1.02E-06	1.08YrCanc	1.02E-06	0
147	ALL	UCART1	479836.8	3774369.17	1.01E-06	1.08YrCanc	1.01E-06	0
122	ALL	UCART1	479699.6	3774351.48	9.96E-07	1.08YrCanc	9.96E-07	0
100	ALL	UCART1	479665.3	3774333.79	9.83E-07	1.08YrCanc	9.83E-07	0
14	ALL	UCART1	479596.7	3774263.03	9.74E-07	1.08YrCanc	9.74E-07	0
144	ALL	UCART1	479733.9	3774369.17	9.63E-07	1.08YrCanc	9.63E-07	0
78	ALL	UCART1	479631	3774316.1	9.26E-07	1.08YrCanc	9.26E-07	0
35	ALL	UCART1	479596.7	3774280.72	9.06E-07	1.08YrCanc	9.06E-07	0
167	ALL	UCART1	479802.5	3774386.86	9.06E-07	1.08YrCanc	9.06E-07	0
166	ALL	UCART1	479768.2	3774386.86	8.93E-07	1.08YrCanc	8.93E-07	0
168	ALL	UCART1	479836.8	3774386.86	8.90E-07	1.08YrCanc	8.90E-07	0
143	ALL	UCART1	479699.6	3774369.17	8.85E-07	1.08YrCanc	8.85E-07	0
121	ALL	UCART1	479665.3	3774351.48	8.83E-07	1.08YrCanc	8.83E-07	0
165	ALL	UCART1	479733.9	3774386.86	8.53E-07	1.08YrCanc	8.53E-07	0
99	ALL	UCART1	479631	3774333.79	8.45E-07	1.08YrCanc	8.45E-07	0
56	ALL	UCART1	479596.7	3774298.41	8.41E-07	1.08YrCanc	8.41E-07	0
188	ALL	UCART1	479802.5	3774404.55	8.03E-07	1.08YrCanc	8.03E-07	0
142	ALL	UCART1	479665.3	3774369.17	7.96E-07	1.08YrCanc	7.96E-07	0
187	ALL	UCART1	479768.2	3774404.55	7.93E-07	1.08YrCanc	7.93E-07	0
164	ALL	UCART1	479699.6	3774386.86	7.93E-07	1.08YrCanc	7.93E-07	0
189	ALL	UCART1	479836.8	3774404.55	7.90E-07	1.08YrCanc	7.90E-07	0
13	ALL	UCART1	479562.4	3774263.03	7.88E-07	1.08YrCanc	7.88E-07	0
77	ALL	UCART1	479596.7	3774316.1	7.80E-07	1.08YrCanc	7.80E-07	0
120	ALL	UCART1	479631	3774351.48	7.71E-07	1.08YrCanc	7.71E-07	0
186	ALL	UCART1	479733.9	3774404.55	7.61E-07	1.08YrCanc	7.61E-07	0
34	ALL	UCART1	479562.4	3774280.72	7.45E-07	1.08YrCanc	7.45E-07	0
98	ALL	UCART1	479596.7	3774333.79	7.23E-07	1.08YrCanc	7.23E-07	0
163	ALL	UCART1	479665.3	3774386.86	7.21E-07	1.08YrCanc	7.21E-07	0
209	ALL	UCART1	479802.5	3774422.24	7.17E-07	1.08YrCanc	7.17E-07	0
185	ALL	UCART1	479699.6	3774404.55	7.14E-07	1.08YrCanc	7.14E-07	0
208	ALL	UCART1	479768.2	3774422.24	7.09E-07	1.08YrCanc	7.09E-07	0
210	ALL	UCART1	479836.8	3774422.24	7.07E-07	1.08YrCanc	7.07E-07	0
141	ALL	UCART1	479631	3774369.17	7.06E-07	1.08YrCanc	7.06E-07	0
55	ALL	UCART1	479562.4	3774298.41	7.02E-07	1.08YrCanc	7.02E-07	0
207	ALL	UCART1	479733.9	3774422.24	6.84E-07	1.08YrCanc	6.84E-07	0
119	ALL	UCART1	479596.7	3774351.48	6.70E-07	1.08YrCanc	6.70E-07	0
76	ALL	UCART1	479562.4	3774316.1	6.60E-07	1.08YrCanc	6.60E-07	0
184	ALL	UCART1	479665.3	3774404.55	6.56E-07	1.08YrCanc	6.56E-07	0
12	ALL	UCART1	479528.1	3774263.03	6.49E-07	1.08YrCanc	6.49E-07	0
162	ALL	UCART1	479631	3774386.86	6.47E-07	1.08YrCanc	6.47E-07	0
206	ALL	UCART1	479699.6	3774422.24	6.46E-07	1.08YrCanc	6.46E-07	0
230	ALL	UCART1	479802.5	3774439.93	6.45E-07	1.08YrCanc	6.45E-07	0
229	ALL	UCART1	479768.2	3774439.93	6.39E-07	1.08YrCanc	6.39E-07	0
231	ALL	UCART1	479836.8	3774439.93	6.37E-07	1.08YrCanc	6.37E-07	0
140	ALL	UCART1	479596.7	3774369.17	6.21E-07	1.08YrCanc	6.21E-07	0
33	ALL	UCART1	479528.1	3774280.72	6.21E-07	1.08YrCanc	6.21E-07	0

97	ALL	UCART1	479562.4	3774333.79	6.20E-07	1.08YrCanc	6.20E-07	0
228	ALL	UCART1	479733.9	3774439.93	6.19E-07	1.08YrCanc	6.19E-07	0
205	ALL	UCART1	479665.3	3774422.24	6.00E-07	1.08YrCanc	6.00E-07	0
183	ALL	UCART1	479631	3774404.55	5.95E-07	1.08YrCanc	5.95E-07	0
54	ALL	UCART1	479528.1	3774298.41	5.91E-07	1.08YrCanc	5.91E-07	0
227	ALL	UCART1	479699.6	3774439.93	5.88E-07	1.08YrCanc	5.88E-07	0
251	ALL	UCART1	479802.5	3774457.62	5.84E-07	1.08YrCanc	5.84E-07	0
118	ALL	UCART1	479562.4	3774351.48	5.81E-07	1.08YrCanc	5.81E-07	0
250	ALL	UCART1	479768.2	3774457.62	5.79E-07	1.08YrCanc	5.79E-07	0
252	ALL	UCART1	479836.8	3774457.62	5.77E-07	1.08YrCanc	5.77E-07	0
161	ALL	UCART1	479596.7	3774386.86	5.76E-07	1.08YrCanc	5.76E-07	0
249	ALL	UCART1	479733.9	3774457.62	5.63E-07	1.08YrCanc	5.63E-07	0
75	ALL	UCART1	479528.1	3774316.1	5.62E-07	1.08YrCanc	5.62E-07	0
226	ALL	UCART1	479665.3	3774439.93	5.50E-07	1.08YrCanc	5.50E-07	0
204	ALL	UCART1	479631	3774422.24	5.49E-07	1.08YrCanc	5.49E-07	0
139	ALL	UCART1	479562.4	3774369.17	5.45E-07	1.08YrCanc	5.45E-07	0
11	ALL	UCART1	479493.7	3774263.03	5.44E-07	1.08YrCanc	5.44E-07	0
248	ALL	UCART1	479699.6	3774457.62	5.37E-07	1.08YrCanc	5.37E-07	0
182	ALL	UCART1	479596.7	3774404.55	5.35E-07	1.08YrCanc	5.35E-07	0
96	ALL	UCART1	479528.1	3774333.79	5.34E-07	1.08YrCanc	5.34E-07	0
272	ALL	UCART1	479802.5	3774475.31	5.31E-07	1.08YrCanc	5.31E-07	0
271	ALL	UCART1	479768.2	3774475.31	5.27E-07	1.08YrCanc	5.27E-07	0
273	ALL	UCART1	479836.8	3774475.31	5.26E-07	1.08YrCanc	5.26E-07	0
32	ALL	UCART1	479493.7	3774280.72	5.25E-07	1.08YrCanc	5.25E-07	0
270	ALL	UCART1	479733.9	3774475.31	5.14E-07	1.08YrCanc	5.14E-07	0
160	ALL	UCART1	479562.4	3774386.86	5.11E-07	1.08YrCanc	5.11E-07	0
225	ALL	UCART1	479631	3774439.93	5.07E-07	1.08YrCanc	5.07E-07	0
247	ALL	UCART1	479665.3	3774457.62	5.06E-07	1.08YrCanc	5.06E-07	0
117	ALL	UCART1	479528.1	3774351.48	5.06E-07	1.08YrCanc	5.06E-07	0
53	ALL	UCART1	479493.7	3774298.41	5.04E-07	1.08YrCanc	5.04E-07	0
203	ALL	UCART1	479596.7	3774422.24	4.98E-07	1.08YrCanc	4.98E-07	0
269	ALL	UCART1	479699.6	3774475.31	4.93E-07	1.08YrCanc	4.93E-07	0
293	ALL	UCART1	479802.5	3774493	4.86E-07	1.08YrCanc	4.86E-07	0
74	ALL	UCART1	479493.7	3774316.1	4.83E-07	1.08YrCanc	4.83E-07	0
292	ALL	UCART1	479768.2	3774493	4.83E-07	1.08YrCanc	4.83E-07	0
294	ALL	UCART1	479836.8	3774493	4.82E-07	1.08YrCanc	4.82E-07	0
181	ALL	UCART1	479562.4	3774404.55	4.79E-07	1.08YrCanc	4.79E-07	0
138	ALL	UCART1	479528.1	3774369.17	4.79E-07	1.08YrCanc	4.79E-07	0
291	ALL	UCART1	479733.9	3774493	4.72E-07	1.08YrCanc	4.72E-07	0
246	ALL	UCART1	479631	3774457.62	4.70E-07	1.08YrCanc	4.70E-07	0
268	ALL	UCART1	479665.3	3774475.31	4.67E-07	1.08YrCanc	4.67E-07	0
224	ALL	UCART1	479596.7	3774439.93	4.64E-07	1.08YrCanc	4.64E-07	0
10	ALL	UCART1	479459.4	3774263.03	4.63E-07	1.08YrCanc	4.63E-07	0
95	ALL	UCART1	479493.7	3774333.79	4.63E-07	1.08YrCanc	4.63E-07	0
290	ALL	UCART1	479699.6	3774493	4.55E-07	1.08YrCanc	4.55E-07	0
159	ALL	UCART1	479528.1	3774386.86	4.53E-07	1.08YrCanc	4.53E-07	0
202	ALL	UCART1	479562.4	3774422.24	4.49E-07	1.08YrCanc	4.49E-07	0

31	ALL	UCART1	479459.4	3774280.72	4.49E-07	1.08YrCanc	4.49E-07	0
314	ALL	UCART1	479802.5	3774510.69	4.47E-07	1.08YrCanc	4.47E-07	0
313	ALL	UCART1	479768.2	3774510.69	4.44E-07	1.08YrCanc	4.44E-07	0
315	ALL	UCART1	479836.8	3774510.69	4.43E-07	1.08YrCanc	4.43E-07	0
116	ALL	UCART1	479493.7	3774351.48	4.42E-07	1.08YrCanc	4.42E-07	0
267	ALL	UCART1	479631	3774475.31	4.37E-07	1.08YrCanc	4.37E-07	0
312	ALL	UCART1	479733.9	3774510.69	4.35E-07	1.08YrCanc	4.35E-07	0
52	ALL	UCART1	479459.4	3774298.41	4.34E-07	1.08YrCanc	4.34E-07	0
245	ALL	UCART1	479596.7	3774457.62	4.33E-07	1.08YrCanc	4.33E-07	0
289	ALL	UCART1	479665.3	3774493	4.32E-07	1.08YrCanc	4.32E-07	0
180	ALL	UCART1	479528.1	3774404.55	4.28E-07	1.08YrCanc	4.28E-07	0
223	ALL	UCART1	479562.4	3774439.93	4.22E-07	1.08YrCanc	4.22E-07	0
137	ALL	UCART1	479493.7	3774369.17	4.22E-07	1.08YrCanc	4.22E-07	0
311	ALL	UCART1	479699.6	3774510.69	4.20E-07	1.08YrCanc	4.20E-07	0
73	ALL	UCART1	479459.4	3774316.1	4.19E-07	1.08YrCanc	4.19E-07	0
335	ALL	UCART1	479802.5	3774528.38	4.12E-07	1.08YrCanc	4.12E-07	0
334	ALL	UCART1	479768.2	3774528.38	4.10E-07	1.08YrCanc	4.10E-07	0
336	ALL	UCART1	479836.8	3774528.38	4.09E-07	1.08YrCanc	4.09E-07	0
288	ALL	UCART1	479631	3774493	4.07E-07	1.08YrCanc	4.07E-07	0
266	ALL	UCART1	479596.7	3774475.31	4.05E-07	1.08YrCanc	4.05E-07	0
201	ALL	UCART1	479528.1	3774422.24	4.05E-07	1.08YrCanc	4.05E-07	0
94	ALL	UCART1	479459.4	3774333.79	4.04E-07	1.08YrCanc	4.04E-07	0
333	ALL	UCART1	479733.9	3774528.38	4.02E-07	1.08YrCanc	4.02E-07	0
158	ALL	UCART1	479493.7	3774386.86	4.02E-07	1.08YrCanc	4.02E-07	0
310	ALL	UCART1	479665.3	3774510.69	4.01E-07	1.08YrCanc	4.01E-07	0
9	ALL	UCART1	479425.1	3774263.03	3.99E-07	1.08YrCanc	3.99E-07	0
244	ALL	UCART1	479562.4	3774457.62	3.97E-07	1.08YrCanc	3.97E-07	0
332	ALL	UCART1	479699.6	3774528.38	3.90E-07	1.08YrCanc	3.90E-07	0
30	ALL	UCART1	479425.1	3774280.72	3.89E-07	1.08YrCanc	3.89E-07	0
115	ALL	UCART1	479459.4	3774351.48	3.89E-07	1.08YrCanc	3.89E-07	0
222	ALL	UCART1	479528.1	3774439.93	3.83E-07	1.08YrCanc	3.83E-07	0
179	ALL	UCART1	479493.7	3774404.55	3.83E-07	1.08YrCanc	3.83E-07	0
356	ALL	UCART1	479802.5	3774546.07	3.82E-07	1.08YrCanc	3.82E-07	0
355	ALL	UCART1	479768.2	3774546.07	3.80E-07	1.08YrCanc	3.80E-07	0
309	ALL	UCART1	479631	3774510.69	3.79E-07	1.08YrCanc	3.79E-07	0
287	ALL	UCART1	479596.7	3774493	3.79E-07	1.08YrCanc	3.79E-07	0
357	ALL	UCART1	479836.8	3774546.07	3.79E-07	1.08YrCanc	3.79E-07	0
51	ALL	UCART1	479425.1	3774298.41	3.78E-07	1.08YrCanc	3.78E-07	0
331	ALL	UCART1	479665.3	3774528.38	3.74E-07	1.08YrCanc	3.74E-07	0
354	ALL	UCART1	479733.9	3774546.07	3.73E-07	1.08YrCanc	3.73E-07	0
265	ALL	UCART1	479562.4	3774475.31	3.73E-07	1.08YrCanc	3.73E-07	0
136	ALL	UCART1	479459.4	3774369.17	3.73E-07	1.08YrCanc	3.73E-07	0
72	ALL	UCART1	479425.1	3774316.1	3.67E-07	1.08YrCanc	3.67E-07	0
200	ALL	UCART1	479493.7	3774422.24	3.64E-07	1.08YrCanc	3.64E-07	0
353	ALL	UCART1	479699.6	3774546.07	3.63E-07	1.08YrCanc	3.63E-07	0
243	ALL	UCART1	479528.1	3774457.62	3.62E-07	1.08YrCanc	3.62E-07	0
157	ALL	UCART1	479459.4	3774386.86	3.58E-07	1.08YrCanc	3.58E-07	0

308	ALL	UCART1	479596.7	3774510.69	3.56E-07	1.08YrCanc	3.56E-07	0
93	ALL	UCART1	479425.1	3774333.79	3.55E-07	1.08YrCanc	3.55E-07	0
330	ALL	UCART1	479631	3774528.38	3.55E-07	1.08YrCanc	3.55E-07	0
377	ALL	UCART1	479802.5	3774563.76	3.55E-07	1.08YrCanc	3.55E-07	0
376	ALL	UCART1	479768.2	3774563.76	3.53E-07	1.08YrCanc	3.53E-07	0
378	ALL	UCART1	479836.8	3774563.76	3.52E-07	1.08YrCanc	3.52E-07	0
286	ALL	UCART1	479562.4	3774493	3.52E-07	1.08YrCanc	3.52E-07	0
352	ALL	UCART1	479665.3	3774546.07	3.49E-07	1.08YrCanc	3.49E-07	0
375	ALL	UCART1	479733.9	3774563.76	3.48E-07	1.08YrCanc	3.48E-07	0
8	ALL	UCART1	479390.8	3774263.03	3.48E-07	1.08YrCanc	3.48E-07	0
221	ALL	UCART1	479493.7	3774439.93	3.47E-07	1.08YrCanc	3.47E-07	0
114	ALL	UCART1	479425.1	3774351.48	3.44E-07	1.08YrCanc	3.44E-07	0
178	ALL	UCART1	479459.4	3774404.55	3.43E-07	1.08YrCanc	3.43E-07	0
264	ALL	UCART1	479528.1	3774475.31	3.43E-07	1.08YrCanc	3.43E-07	0
29	ALL	UCART1	479390.8	3774280.72	3.40E-07	1.08YrCanc	3.40E-07	0
374	ALL	UCART1	479699.6	3774563.76	3.39E-07	1.08YrCanc	3.39E-07	0
329	ALL	UCART1	479596.7	3774528.38	3.34E-07	1.08YrCanc	3.34E-07	0
351	ALL	UCART1	479631	3774546.07	3.33E-07	1.08YrCanc	3.33E-07	0
50	ALL	UCART1	479390.8	3774298.41	3.32E-07	1.08YrCanc	3.32E-07	0
135	ALL	UCART1	479425.1	3774369.17	3.32E-07	1.08YrCanc	3.32E-07	0
307	ALL	UCART1	479562.4	3774510.69	3.32E-07	1.08YrCanc	3.32E-07	0
398	ALL	UCART1	479802.5	3774581.45	3.31E-07	1.08YrCanc	3.31E-07	0
242	ALL	UCART1	479493.7	3774457.62	3.30E-07	1.08YrCanc	3.30E-07	0
397	ALL	UCART1	479768.2	3774581.45	3.29E-07	1.08YrCanc	3.29E-07	0
399	ALL	UCART1	479836.8	3774581.45	3.29E-07	1.08YrCanc	3.29E-07	0
199	ALL	UCART1	479459.4	3774422.24	3.28E-07	1.08YrCanc	3.28E-07	0
373	ALL	UCART1	479665.3	3774563.76	3.27E-07	1.08YrCanc	3.27E-07	0
285	ALL	UCART1	479528.1	3774493	3.25E-07	1.08YrCanc	3.25E-07	0
396	ALL	UCART1	479733.9	3774581.45	3.25E-07	1.08YrCanc	3.25E-07	0
71	ALL	UCART1	479390.8	3774316.1	3.24E-07	1.08YrCanc	3.24E-07	0
156	ALL	UCART1	479425.1	3774386.86	3.20E-07	1.08YrCanc	3.20E-07	0
395	ALL	UCART1	479699.6	3774581.45	3.17E-07	1.08YrCanc	3.17E-07	0
92	ALL	UCART1	479390.8	3774333.79	3.15E-07	1.08YrCanc	3.15E-07	0
350	ALL	UCART1	479596.7	3774546.07	3.15E-07	1.08YrCanc	3.15E-07	0
220	ALL	UCART1	479459.4	3774439.93	3.14E-07	1.08YrCanc	3.14E-07	0
263	ALL	UCART1	479493.7	3774475.31	3.14E-07	1.08YrCanc	3.14E-07	0
328	ALL	UCART1	479562.4	3774528.38	3.13E-07	1.08YrCanc	3.13E-07	0
372	ALL	UCART1	479631	3774563.76	3.13E-07	1.08YrCanc	3.13E-07	0
419	ALL	UCART1	479802.5	3774599.14	3.09E-07	1.08YrCanc	3.09E-07	0
177	ALL	UCART1	479425.1	3774404.55	3.08E-07	1.08YrCanc	3.08E-07	0
418	ALL	UCART1	479768.2	3774599.14	3.08E-07	1.08YrCanc	3.08E-07	0
306	ALL	UCART1	479528.1	3774510.69	3.08E-07	1.08YrCanc	3.08E-07	0
420	ALL	UCART1	479836.8	3774599.14	3.07E-07	1.08YrCanc	3.07E-07	0
394	ALL	UCART1	479665.3	3774581.45	3.07E-07	1.08YrCanc	3.07E-07	0
7	ALL	UCART1	479356.5	3774263.03	3.06E-07	1.08YrCanc	3.06E-07	0
113	ALL	UCART1	479390.8	3774351.48	3.06E-07	1.08YrCanc	3.06E-07	0
417	ALL	UCART1	479733.9	3774599.14	3.04E-07	1.08YrCanc	3.04E-07	0

241	ALL	UCART1	479459.4	3774457.62	3.01E-07	1.08YrCanc	3.01E-07	0
28	ALL	UCART1	479356.5	3774280.72	3.00E-07	1.08YrCanc	3.00E-07	0
284	ALL	UCART1	479493.7	3774493	2.99E-07	1.08YrCanc	2.99E-07	0
416	ALL	UCART1	479699.6	3774599.14	2.97E-07	1.08YrCanc	2.97E-07	0
371	ALL	UCART1	479596.7	3774563.76	2.97E-07	1.08YrCanc	2.97E-07	0
198	ALL	UCART1	479425.1	3774422.24	2.97E-07	1.08YrCanc	2.97E-07	0
134	ALL	UCART1	479390.8	3774369.17	2.97E-07	1.08YrCanc	2.97E-07	0
349	ALL	UCART1	479562.4	3774546.07	2.96E-07	1.08YrCanc	2.96E-07	0
49	ALL	UCART1	479356.5	3774298.41	2.94E-07	1.08YrCanc	2.94E-07	0
393	ALL	UCART1	479631	3774581.45	2.94E-07	1.08YrCanc	2.94E-07	0
327	ALL	UCART1	479528.1	3774528.38	2.92E-07	1.08YrCanc	2.92E-07	0
440	ALL	UCART1	479802.5	3774616.83	2.90E-07	1.08YrCanc	2.90E-07	0
439	ALL	UCART1	479768.2	3774616.83	2.89E-07	1.08YrCanc	2.89E-07	0
441	ALL	UCART1	479836.8	3774616.83	2.88E-07	1.08YrCanc	2.88E-07	0
415	ALL	UCART1	479665.3	3774599.14	2.88E-07	1.08YrCanc	2.88E-07	0
70	ALL	UCART1	479356.5	3774316.1	2.88E-07	1.08YrCanc	2.88E-07	0
262	ALL	UCART1	479459.4	3774475.31	2.88E-07	1.08YrCanc	2.88E-07	0
155	ALL	UCART1	479390.8	3774386.86	2.87E-07	1.08YrCanc	2.87E-07	0
438	ALL	UCART1	479733.9	3774616.83	2.85E-07	1.08YrCanc	2.85E-07	0
219	ALL	UCART1	479425.1	3774439.93	2.85E-07	1.08YrCanc	2.85E-07	0
305	ALL	UCART1	479493.7	3774510.69	2.85E-07	1.08YrCanc	2.85E-07	0
91	ALL	UCART1	479356.5	3774333.79	2.81E-07	1.08YrCanc	2.81E-07	0
392	ALL	UCART1	479596.7	3774581.45	2.80E-07	1.08YrCanc	2.80E-07	0
370	ALL	UCART1	479562.4	3774563.76	2.80E-07	1.08YrCanc	2.80E-07	0
437	ALL	UCART1	479699.6	3774616.83	2.79E-07	1.08YrCanc	2.79E-07	0
176	ALL	UCART1	479390.8	3774404.55	2.78E-07	1.08YrCanc	2.78E-07	0
348	ALL	UCART1	479528.1	3774546.07	2.77E-07	1.08YrCanc	2.77E-07	0
414	ALL	UCART1	479631	3774599.14	2.77E-07	1.08YrCanc	2.77E-07	0
283	ALL	UCART1	479459.4	3774493	2.75E-07	1.08YrCanc	2.75E-07	0
240	ALL	UCART1	479425.1	3774457.62	2.74E-07	1.08YrCanc	2.74E-07	0
112	ALL	UCART1	479356.5	3774351.48	2.74E-07	1.08YrCanc	2.74E-07	0
6	ALL	UCART1	479322.2	3774263.03	2.72E-07	1.08YrCanc	2.72E-07	0
436	ALL	UCART1	479665.3	3774616.83	2.72E-07	1.08YrCanc	2.72E-07	0
326	ALL	UCART1	479493.7	3774528.38	2.72E-07	1.08YrCanc	2.72E-07	0
197	ALL	UCART1	479390.8	3774422.24	2.69E-07	1.08YrCanc	2.69E-07	0
27	ALL	UCART1	479322.2	3774280.72	2.67E-07	1.08YrCanc	2.67E-07	0
133	ALL	UCART1	479356.5	3774369.17	2.66E-07	1.08YrCanc	2.66E-07	0
391	ALL	UCART1	479562.4	3774581.45	2.66E-07	1.08YrCanc	2.66E-07	0
413	ALL	UCART1	479596.7	3774599.14	2.65E-07	1.08YrCanc	2.65E-07	0
369	ALL	UCART1	479528.1	3774563.76	2.64E-07	1.08YrCanc	2.64E-07	0
261	ALL	UCART1	479425.1	3774475.31	2.63E-07	1.08YrCanc	2.63E-07	0
304	ALL	UCART1	479459.4	3774510.69	2.63E-07	1.08YrCanc	2.63E-07	0
48	ALL	UCART1	479322.2	3774298.41	2.62E-07	1.08YrCanc	2.62E-07	0
435	ALL	UCART1	479631	3774616.83	2.62E-07	1.08YrCanc	2.62E-07	0
218	ALL	UCART1	479390.8	3774439.93	2.59E-07	1.08YrCanc	2.59E-07	0
154	ALL	UCART1	479356.5	3774386.86	2.59E-07	1.08YrCanc	2.59E-07	0
347	ALL	UCART1	479493.7	3774546.07	2.59E-07	1.08YrCanc	2.59E-07	0

69	ALL	UCART1	479322.2	3774316.1	2.57E-07	1.08YrCanc	2.57E-07	0
282	ALL	UCART1	479425.1	3774493	2.53E-07	1.08YrCanc	2.53E-07	0
412	ALL	UCART1	479562.4	3774599.14	2.52E-07	1.08YrCanc	2.52E-07	0
90	ALL	UCART1	479322.2	3774333.79	2.52E-07	1.08YrCanc	2.52E-07	0
325	ALL	UCART1	479459.4	3774528.38	2.52E-07	1.08YrCanc	2.52E-07	0
175	ALL	UCART1	479356.5	3774404.55	2.52E-07	1.08YrCanc	2.52E-07	0
434	ALL	UCART1	479596.7	3774616.83	2.51E-07	1.08YrCanc	2.51E-07	0
390	ALL	UCART1	479528.1	3774581.45	2.51E-07	1.08YrCanc	2.51E-07	0
239	ALL	UCART1	479390.8	3774457.62	2.50E-07	1.08YrCanc	2.50E-07	0
368	ALL	UCART1	479493.7	3774563.76	2.47E-07	1.08YrCanc	2.47E-07	0
111	ALL	UCART1	479322.2	3774351.48	2.46E-07	1.08YrCanc	2.46E-07	0
196	ALL	UCART1	479356.5	3774422.24	2.44E-07	1.08YrCanc	2.44E-07	0
303	ALL	UCART1	479425.1	3774510.69	2.43E-07	1.08YrCanc	2.43E-07	0
5	ALL	UCART1	479287.9	3774263.03	2.43E-07	1.08YrCanc	2.43E-07	0
260	ALL	UCART1	479390.8	3774475.31	2.42E-07	1.08YrCanc	2.42E-07	0
346	ALL	UCART1	479459.4	3774546.07	2.41E-07	1.08YrCanc	2.41E-07	0
132	ALL	UCART1	479322.2	3774369.17	2.41E-07	1.08YrCanc	2.41E-07	0
433	ALL	UCART1	479562.4	3774616.83	2.40E-07	1.08YrCanc	2.40E-07	0
26	ALL	UCART1	479287.9	3774280.72	2.39E-07	1.08YrCanc	2.39E-07	0
411	ALL	UCART1	479528.1	3774599.14	2.39E-07	1.08YrCanc	2.39E-07	0
217	ALL	UCART1	479356.5	3774439.93	2.37E-07	1.08YrCanc	2.37E-07	0
389	ALL	UCART1	479493.7	3774581.45	2.36E-07	1.08YrCanc	2.36E-07	0
47	ALL	UCART1	479287.9	3774298.41	2.36E-07	1.08YrCanc	2.36E-07	0
153	ALL	UCART1	479322.2	3774386.86	2.35E-07	1.08YrCanc	2.35E-07	0
324	ALL	UCART1	479425.1	3774528.38	2.34E-07	1.08YrCanc	2.34E-07	0
281	ALL	UCART1	479390.8	3774493	2.33E-07	1.08YrCanc	2.33E-07	0
68	ALL	UCART1	479287.9	3774316.1	2.32E-07	1.08YrCanc	2.32E-07	0
367	ALL	UCART1	479459.4	3774563.76	2.31E-07	1.08YrCanc	2.31E-07	0
238	ALL	UCART1	479356.5	3774457.62	2.29E-07	1.08YrCanc	2.29E-07	0
174	ALL	UCART1	479322.2	3774404.55	2.29E-07	1.08YrCanc	2.29E-07	0
432	ALL	UCART1	479528.1	3774616.83	2.28E-07	1.08YrCanc	2.28E-07	0
89	ALL	UCART1	479287.9	3774333.79	2.27E-07	1.08YrCanc	2.27E-07	0
410	ALL	UCART1	479493.7	3774599.14	2.25E-07	1.08YrCanc	2.25E-07	0
302	ALL	UCART1	479390.8	3774510.69	2.25E-07	1.08YrCanc	2.25E-07	0
345	ALL	UCART1	479425.1	3774546.07	2.24E-07	1.08YrCanc	2.24E-07	0
110	ALL	UCART1	479287.9	3774351.48	2.23E-07	1.08YrCanc	2.23E-07	0
195	ALL	UCART1	479322.2	3774422.24	2.22E-07	1.08YrCanc	2.22E-07	0
259	ALL	UCART1	479356.5	3774475.31	2.22E-07	1.08YrCanc	2.22E-07	0
388	ALL	UCART1	479459.4	3774581.45	2.21E-07	1.08YrCanc	2.21E-07	0
4	ALL	UCART1	479253.6	3774263.03	2.19E-07	1.08YrCanc	2.19E-07	0
131	ALL	UCART1	479287.9	3774369.17	2.18E-07	1.08YrCanc	2.18E-07	0
323	ALL	UCART1	479390.8	3774528.38	2.17E-07	1.08YrCanc	2.17E-07	0
216	ALL	UCART1	479322.2	3774439.93	2.16E-07	1.08YrCanc	2.16E-07	0
25	ALL	UCART1	479253.6	3774280.72	2.16E-07	1.08YrCanc	2.16E-07	0
366	ALL	UCART1	479425.1	3774563.76	2.16E-07	1.08YrCanc	2.16E-07	0
431	ALL	UCART1	479493.7	3774616.83	2.15E-07	1.08YrCanc	2.15E-07	0
280	ALL	UCART1	479356.5	3774493	2.15E-07	1.08YrCanc	2.15E-07	0

152	ALL	UCART1	479287.9	3774386.86	2.13E-07	1.08YrCanc	2.13E-07	0
46	ALL	UCART1	479253.6	3774298.41	2.13E-07	1.08YrCanc	2.13E-07	0
409	ALL	UCART1	479459.4	3774599.14	2.12E-07	1.08YrCanc	2.12E-07	0
237	ALL	UCART1	479322.2	3774457.62	2.10E-07	1.08YrCanc	2.10E-07	0
67	ALL	UCART1	479253.6	3774316.1	2.10E-07	1.08YrCanc	2.10E-07	0
344	ALL	UCART1	479390.8	3774546.07	2.09E-07	1.08YrCanc	2.09E-07	0
173	ALL	UCART1	479287.9	3774404.55	2.08E-07	1.08YrCanc	2.08E-07	0
301	ALL	UCART1	479356.5	3774510.69	2.08E-07	1.08YrCanc	2.08E-07	0
387	ALL	UCART1	479425.1	3774581.45	2.07E-07	1.08YrCanc	2.07E-07	0
88	ALL	UCART1	479253.6	3774333.79	2.06E-07	1.08YrCanc	2.06E-07	0
258	ALL	UCART1	479322.2	3774475.31	2.04E-07	1.08YrCanc	2.04E-07	0
194	ALL	UCART1	479287.9	3774422.24	2.03E-07	1.08YrCanc	2.03E-07	0
430	ALL	UCART1	479459.4	3774616.83	2.03E-07	1.08YrCanc	2.03E-07	0
109	ALL	UCART1	479253.6	3774351.48	2.03E-07	1.08YrCanc	2.03E-07	0
365	ALL	UCART1	479390.8	3774563.76	2.01E-07	1.08YrCanc	2.01E-07	0
322	ALL	UCART1	479356.5	3774528.38	2.01E-07	1.08YrCanc	2.01E-07	0
408	ALL	UCART1	479425.1	3774599.14	1.99E-07	1.08YrCanc	1.99E-07	0
130	ALL	UCART1	479253.6	3774369.17	1.99E-07	1.08YrCanc	1.99E-07	0
215	ALL	UCART1	479287.9	3774439.93	1.98E-07	1.08YrCanc	1.98E-07	0
279	ALL	UCART1	479322.2	3774493	1.98E-07	1.08YrCanc	1.98E-07	0
3	ALL	UCART1	479219.3	3774263.03	1.98E-07	1.08YrCanc	1.98E-07	0
24	ALL	UCART1	479219.3	3774280.72	1.96E-07	1.08YrCanc	1.96E-07	0
151	ALL	UCART1	479253.6	3774386.86	1.95E-07	1.08YrCanc	1.95E-07	0
343	ALL	UCART1	479356.5	3774546.07	1.94E-07	1.08YrCanc	1.94E-07	0
386	ALL	UCART1	479390.8	3774581.45	1.94E-07	1.08YrCanc	1.94E-07	0
45	ALL	UCART1	479219.3	3774298.41	1.94E-07	1.08YrCanc	1.94E-07	0
236	ALL	UCART1	479287.9	3774457.62	1.93E-07	1.08YrCanc	1.93E-07	0
300	ALL	UCART1	479322.2	3774510.69	1.92E-07	1.08YrCanc	1.92E-07	0
429	ALL	UCART1	479425.1	3774616.83	1.92E-07	1.08YrCanc	1.92E-07	0
66	ALL	UCART1	479219.3	3774316.1	1.91E-07	1.08YrCanc	1.91E-07	0
172	ALL	UCART1	479253.6	3774404.55	1.91E-07	1.08YrCanc	1.91E-07	0
257	ALL	UCART1	479287.9	3774475.31	1.88E-07	1.08YrCanc	1.88E-07	0
87	ALL	UCART1	479219.3	3774333.79	1.88E-07	1.08YrCanc	1.88E-07	0
364	ALL	UCART1	479356.5	3774563.76	1.88E-07	1.08YrCanc	1.88E-07	0
407	ALL	UCART1	479390.8	3774599.14	1.87E-07	1.08YrCanc	1.87E-07	0
193	ALL	UCART1	479253.6	3774422.24	1.87E-07	1.08YrCanc	1.87E-07	0
321	ALL	UCART1	479322.2	3774528.38	1.87E-07	1.08YrCanc	1.87E-07	0
108	ALL	UCART1	479219.3	3774351.48	1.85E-07	1.08YrCanc	1.85E-07	0
278	ALL	UCART1	479287.9	3774493	1.83E-07	1.08YrCanc	1.83E-07	0
214	ALL	UCART1	479253.6	3774439.93	1.83E-07	1.08YrCanc	1.83E-07	0
129	ALL	UCART1	479219.3	3774369.17	1.82E-07	1.08YrCanc	1.82E-07	0
385	ALL	UCART1	479356.5	3774581.45	1.82E-07	1.08YrCanc	1.82E-07	0
342	ALL	UCART1	479322.2	3774546.07	1.81E-07	1.08YrCanc	1.81E-07	0
2	ALL	UCART1	479185	3774263.03	1.81E-07	1.08YrCanc	1.81E-07	0
428	ALL	UCART1	479390.8	3774616.83	1.80E-07	1.08YrCanc	1.80E-07	0
150	ALL	UCART1	479219.3	3774386.86	1.79E-07	1.08YrCanc	1.79E-07	0
23	ALL	UCART1	479185	3774280.72	1.79E-07	1.08YrCanc	1.79E-07	0

299	ALL	UCART1	479287.9	3774510.69	1.78E-07	1.08YrCanc	1.78E-07	0
235	ALL	UCART1	479253.6	3774457.62	1.78E-07	1.08YrCanc	1.78E-07	0
44	ALL	UCART1	479185	3774298.41	1.77E-07	1.08YrCanc	1.77E-07	0
406	ALL	UCART1	479356.5	3774599.14	1.76E-07	1.08YrCanc	1.76E-07	0
363	ALL	UCART1	479322.2	3774563.76	1.75E-07	1.08YrCanc	1.75E-07	0
171	ALL	UCART1	479219.3	3774404.55	1.75E-07	1.08YrCanc	1.75E-07	0
65	ALL	UCART1	479185	3774316.1	1.75E-07	1.08YrCanc	1.75E-07	0
256	ALL	UCART1	479253.6	3774475.31	1.74E-07	1.08YrCanc	1.74E-07	0
320	ALL	UCART1	479287.9	3774528.38	1.74E-07	1.08YrCanc	1.74E-07	0
86	ALL	UCART1	479185	3774333.79	1.72E-07	1.08YrCanc	1.72E-07	0
192	ALL	UCART1	479219.3	3774422.24	1.72E-07	1.08YrCanc	1.72E-07	0
384	ALL	UCART1	479322.2	3774581.45	1.70E-07	1.08YrCanc	1.70E-07	0
277	ALL	UCART1	479253.6	3774493	1.70E-07	1.08YrCanc	1.70E-07	0
427	ALL	UCART1	479356.5	3774616.83	1.70E-07	1.08YrCanc	1.70E-07	0
107	ALL	UCART1	479185	3774351.48	1.70E-07	1.08YrCanc	1.70E-07	0
341	ALL	UCART1	479287.9	3774546.07	1.69E-07	1.08YrCanc	1.69E-07	0
213	ALL	UCART1	479219.3	3774439.93	1.68E-07	1.08YrCanc	1.68E-07	0
128	ALL	UCART1	479185	3774369.17	1.67E-07	1.08YrCanc	1.67E-07	0
298	ALL	UCART1	479253.6	3774510.69	1.66E-07	1.08YrCanc	1.66E-07	0
1	ALL	UCART1	479150.6	3774263.03	1.65E-07	1.08YrCanc	1.65E-07	0
234	ALL	UCART1	479219.3	3774457.62	1.65E-07	1.08YrCanc	1.65E-07	0
405	ALL	UCART1	479322.2	3774599.14	1.65E-07	1.08YrCanc	1.65E-07	0
149	ALL	UCART1	479185	3774386.86	1.65E-07	1.08YrCanc	1.65E-07	0
362	ALL	UCART1	479287.9	3774563.76	1.64E-07	1.08YrCanc	1.64E-07	0
22	ALL	UCART1	479150.6	3774280.72	1.64E-07	1.08YrCanc	1.64E-07	0
43	ALL	UCART1	479150.6	3774298.41	1.62E-07	1.08YrCanc	1.62E-07	0
170	ALL	UCART1	479185	3774404.55	1.62E-07	1.08YrCanc	1.62E-07	0
319	ALL	UCART1	479253.6	3774528.38	1.62E-07	1.08YrCanc	1.62E-07	0
255	ALL	UCART1	479219.3	3774475.31	1.61E-07	1.08YrCanc	1.61E-07	0
64	ALL	UCART1	479150.6	3774316.1	1.60E-07	1.08YrCanc	1.60E-07	0
426	ALL	UCART1	479322.2	3774616.83	1.60E-07	1.08YrCanc	1.60E-07	0
383	ALL	UCART1	479287.9	3774581.45	1.59E-07	1.08YrCanc	1.59E-07	0
191	ALL	UCART1	479185	3774422.24	1.59E-07	1.08YrCanc	1.59E-07	0
85	ALL	UCART1	479150.6	3774333.79	1.58E-07	1.08YrCanc	1.58E-07	0
276	ALL	UCART1	479219.3	3774493	1.58E-07	1.08YrCanc	1.58E-07	0
340	ALL	UCART1	479253.6	3774546.07	1.57E-07	1.08YrCanc	1.57E-07	0
106	ALL	UCART1	479150.6	3774351.48	1.56E-07	1.08YrCanc	1.56E-07	0
212	ALL	UCART1	479185	3774439.93	1.56E-07	1.08YrCanc	1.56E-07	0
404	ALL	UCART1	479287.9	3774599.14	1.55E-07	1.08YrCanc	1.55E-07	0
127	ALL	UCART1	479150.6	3774369.17	1.54E-07	1.08YrCanc	1.54E-07	0
297	ALL	UCART1	479219.3	3774510.69	1.54E-07	1.08YrCanc	1.54E-07	0
361	ALL	UCART1	479253.6	3774563.76	1.53E-07	1.08YrCanc	1.53E-07	0
233	ALL	UCART1	479185	3774457.62	1.53E-07	1.08YrCanc	1.53E-07	0
148	ALL	UCART1	479150.6	3774386.86	1.52E-07	1.08YrCanc	1.52E-07	0
318	ALL	UCART1	479219.3	3774528.38	1.51E-07	1.08YrCanc	1.51E-07	0
425	ALL	UCART1	479287.9	3774616.83	1.50E-07	1.08YrCanc	1.50E-07	0
254	ALL	UCART1	479185	3774475.31	1.50E-07	1.08YrCanc	1.50E-07	0

169	ALL	UCART1	479150.6	3774404.55	1.50E-07	1.08YrCanc	1.50E-07	0
382	ALL	UCART1	479253.6	3774581.45	1.49E-07	1.08YrCanc	1.49E-07	0
190	ALL	UCART1	479150.6	3774422.24	1.47E-07	1.08YrCanc	1.47E-07	0
339	ALL	UCART1	479219.3	3774546.07	1.47E-07	1.08YrCanc	1.47E-07	0
275	ALL	UCART1	479185	3774493	1.47E-07	1.08YrCanc	1.47E-07	0
403	ALL	UCART1	479253.6	3774599.14	1.45E-07	1.08YrCanc	1.45E-07	0
211	ALL	UCART1	479150.6	3774439.93	1.45E-07	1.08YrCanc	1.45E-07	0
296	ALL	UCART1	479185	3774510.69	1.44E-07	1.08YrCanc	1.44E-07	0
360	ALL	UCART1	479219.3	3774563.76	1.44E-07	1.08YrCanc	1.44E-07	0
232	ALL	UCART1	479150.6	3774457.62	1.42E-07	1.08YrCanc	1.42E-07	0
424	ALL	UCART1	479253.6	3774616.83	1.42E-07	1.08YrCanc	1.42E-07	0
317	ALL	UCART1	479185	3774528.38	1.41E-07	1.08YrCanc	1.41E-07	0
381	ALL	UCART1	479219.3	3774581.45	1.40E-07	1.08YrCanc	1.40E-07	0
253	ALL	UCART1	479150.6	3774475.31	1.40E-07	1.08YrCanc	1.40E-07	0
338	ALL	UCART1	479185	3774546.07	1.38E-07	1.08YrCanc	1.38E-07	0
274	ALL	UCART1	479150.6	3774493	1.37E-07	1.08YrCanc	1.37E-07	0
402	ALL	UCART1	479219.3	3774599.14	1.37E-07	1.08YrCanc	1.37E-07	0
359	ALL	UCART1	479185	3774563.76	1.35E-07	1.08YrCanc	1.35E-07	0
295	ALL	UCART1	479150.6	3774510.69	1.34E-07	1.08YrCanc	1.34E-07	0
423	ALL	UCART1	479219.3	3774616.83	1.33E-07	1.08YrCanc	1.33E-07	0
316	ALL	UCART1	479150.6	3774528.38	1.32E-07	1.08YrCanc	1.32E-07	0
380	ALL	UCART1	479185	3774581.45	1.32E-07	1.08YrCanc	1.32E-07	0
337	ALL	UCART1	479150.6	3774546.07	1.29E-07	1.08YrCanc	1.29E-07	0
401	ALL	UCART1	479185	3774599.14	1.29E-07	1.08YrCanc	1.29E-07	0
358	ALL	UCART1	479150.6	3774563.76	1.26E-07	1.08YrCanc	1.26E-07	0
422	ALL	UCART1	479185	3774616.83	1.26E-07	1.08YrCanc	1.26E-07	0
379	ALL	UCART1	479150.6	3774581.45	1.24E-07	1.08YrCanc	1.24E-07	0
400	ALL	UCART1	479150.6	3774599.14	1.21E-07	1.08YrCanc	1.21E-07	0

DERMAL_R	MMILK_RIS	WATER_RIS	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_R
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0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
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**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 6/1/2023
** File: C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5th and
Central Ops.ADI
**
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** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5th
and Central
   TITLETWO 5th and Central Warehouse Operations
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   URBANOPT 1000000 from_SCAQMD
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "5th and Central Ops.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------------
--
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = IDLE
** DESCRSRC Truck idling
** PREFIX
** Length of Side = 3.70
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 6.80
** SZINIT = 3.16
** Nodes = 2
** 479827.926, 3774158.406, 355.28, 3.40, 1.72
** 479827.926, 3774136.680, 354.86, 3.40, 1.72
```

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** ----------------------------------------------------------------
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   LOCATION L0000051     VOLUME   479827.926 3774156.556 355.03
   LOCATION L0000052     VOLUME   479827.926 3774152.856 354.99
   LOCATION L0000053     VOLUME   479827.926 3774149.156 354.94
   LOCATION L0000054     VOLUME   479827.926 3774145.456 354.89
   LOCATION L0000055     VOLUME   479827.926 3774141.756 354.84
   LOCATION L0000056     VOLUME   479827.926 3774138.056 354.79
** End of LINE VOLUME Source ID = IDLE
** ----------------------------------------------------------------
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DSLCARGO
** DESCRSRC Cargo handling equipment
** PREFIX
** Length of Side = 9.70
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 6.80
** SZINIT = 3.16
** Nodes = 2
** 479827.926, 3774158.406, 355.28, 3.40, 4.51
** 479827.926, 3774136.680, 354.86, 3.40, 4.51
** ----------------------------------------------------------------
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   LOCATION L0000057     VOLUME   479827.926 3774153.556 354.99
   LOCATION L0000058     VOLUME   479827.926 3774143.856 354.87
** End of LINE VOLUME Source ID = DSLCARGO
** ----------------------------------------------------------------
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = TRUCK1
** DESCRSRC Trucks arrving/departing
** PREFIX
** Length of Side = 16.50
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 6.80
** SZINIT = 3.16
** Nodes = 12
** 479826.702, 3774147.904, 354.85, 3.40, 7.67
** 479846.090, 3774146.413, 355.02, 3.40, 7.67
** 479849.072, 3774204.575, 355.10, 3.40, 7.67
** 480002.680, 3774197.118, 356.53, 3.40, 7.67
** 480733.433, 3774135.973, 363.74, 3.40, 7.67
** 481146.533, 3774104.655, 369.92, 3.40, 7.67
** 481567.089, 3774134.482, 372.76, 3.40, 7.67
** 481583.494, 3774180.713, 373.76, 3.40, 7.67
** 481599.899, 3774240.367, 374.98, 3.40, 7.67
** 481613.321, 3774362.656, 376.37, 3.40, 7.67
** 481604.373, 3774519.246, 372.38, 3.40, 7.67
** 481582.003, 3774623.640, 377.29, 3.40, 7.67
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   LOCATION L0000066     VOLUME   479846.361 3774151.711 355.09
   LOCATION L0000067     VOLUME   479847.206 3774168.189 355.28
   LOCATION L0000068     VOLUME   479848.051 3774184.668 355.26
   LOCATION L0000069     VOLUME   479848.896 3774201.146 355.14
   LOCATION L0000070     VOLUME   479862.124 3774203.941 355.22
   LOCATION L0000071     VOLUME   479878.604 3774203.141 355.42
   LOCATION L0000072     VOLUME   479895.085 3774202.341 355.73
   LOCATION L0000073     VOLUME   479911.566 3774201.541 355.98
   LOCATION L0000074     VOLUME   479928.046 3774200.741 356.20
   LOCATION L0000075     VOLUME   479944.527 3774199.941 356.34
   LOCATION L0000076     VOLUME   479961.007 3774199.141 356.44
   LOCATION L0000077     VOLUME   479977.488 3774198.341 356.51
   LOCATION L0000078     VOLUME   479993.968 3774197.541 356.52
   LOCATION L0000079     VOLUME   480010.431 3774196.469 356.59
   LOCATION L0000080     VOLUME   480026.874 3774195.094 356.73
   LOCATION L0000081     VOLUME   480043.316 3774193.718 356.90
   LOCATION L0000082     VOLUME   480059.759 3774192.342 357.07
   LOCATION L0000083     VOLUME   480076.201 3774190.966 357.22
   LOCATION L0000084     VOLUME   480092.644 3774189.590 357.34
   LOCATION L0000085     VOLUME   480109.086 3774188.215 357.45
   LOCATION L0000086     VOLUME   480125.529 3774186.839 357.61
   LOCATION L0000087     VOLUME   480141.971 3774185.463 357.77
   LOCATION L0000088     VOLUME   480158.414 3774184.087 357.93
   LOCATION L0000089     VOLUME   480174.857 3774182.711 358.09
   LOCATION L0000090     VOLUME   480191.299 3774181.336 358.25
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   LOCATION L0000098     VOLUME   480322.839 3774170.329 359.16
   LOCATION L0000099     VOLUME   480339.282 3774168.953 359.31
   LOCATION L0000100     VOLUME   480355.724 3774167.577 359.43
   LOCATION L0000101     VOLUME   480372.167 3774166.202 359.56
   LOCATION L0000102     VOLUME   480388.610 3774164.826 359.69
   LOCATION L0000103     VOLUME   480405.052 3774163.450 359.89
   LOCATION L0000104     VOLUME   480421.495 3774162.074 360.09
   LOCATION L0000105     VOLUME   480437.937 3774160.698 360.29
   LOCATION L0000106     VOLUME   480454.380 3774159.323 360.54
   LOCATION L0000107     VOLUME   480470.822 3774157.947 360.78
   LOCATION L0000108     VOLUME   480487.265 3774156.571 361.01
   LOCATION L0000109     VOLUME   480503.707 3774155.195 361.22
   LOCATION L0000110     VOLUME   480520.150 3774153.819 361.43
   LOCATION L0000111     VOLUME   480536.592 3774152.444 361.68
   LOCATION L0000112     VOLUME   480553.035 3774151.068 361.89
   LOCATION L0000113     VOLUME   480569.478 3774149.692 362.09
   LOCATION L0000114     VOLUME   480585.920 3774148.316 362.29
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LOCATION L0000115 VOLUME 480602.363 3774146.940 362.49
LOCATION L0000116 VOLUME 480618.805 3774145.565 362.68
LOCATION L0000117 VOLUME 480635.248 3774144.189 362.82
LOCATION L0000118 VOLUME 480651.690 3774142.813 362.97
LOCATION L0000119 VOLUME 480668.133 3774141.437 363.13
LOCATION L0000120 VOLUME 480684.575 3774140.061 363.31
LOCATION L0000121 VOLUME 480701.018 3774138.686 363.48
LOCATION L0000122 VOLUME 480717.460 3774137.310 363.60
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LOCATION L0000124 VOLUME 480750.356 3774134.690 363.85
LOCATION L0000125 VOLUME 480766.809 3774133.443 364.08
LOCATION L0000126 VOLUME 480783.262 3774132.196 364.31
LOCATION L0000127 VOLUME 480799.714 3774130.948 364.53
LOCATION L0000128 VOLUME 480816.167 3774129.701 364.75
LOCATION L0000129 VOLUME 480832.620 3774128.454 364.94
LOCATION L0000130 VOLUME 480849.073 3774127.206 365.10
LOCATION L0000131 VOLUME 480865.526 3774125.959 365.21
LOCATION L0000132 VOLUME 480881.978 3774124.712 365.36
LOCATION L0000133 VOLUME 480898.431 3774123.464 365.54
LOCATION L0000134 VOLUME 480914.884 3774122.217 365.71
LOCATION L0000135 VOLUME 480931.337 3774120.970 365.89
LOCATION L0000136 VOLUME 480947.789 3774119.722 366.09
LOCATION L0000137 VOLUME 480964.242 3774118.475 366.31
LOCATION L0000138 VOLUME 480980.695 3774117.228 366.54
LOCATION L0000139 VOLUME 480997.148 3774115.980 366.80
LOCATION L0000140 VOLUME 481013.601 3774114.733 367.13
LOCATION L0000141 VOLUME 481030.053 3774113.486 367.49
LOCATION L0000142 VOLUME 481046.506 3774112.238 367.81
LOCATION L0000143 VOLUME 481062.959 3774110.991 368.16
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LOCATION L0000146 VOLUME 481112.317 3774107.249 369.26
LOCATION L0000147 VOLUME 481128.770 3774106.002 369.58
LOCATION L0000148 VOLUME 481145.223 3774104.755 369.90
LOCATION L0000149 VOLUME 481161.681 3774105.730 370.24
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LOCATION L0000151 VOLUME 481194.598 3774108.064 370.95
LOCATION L0000152 VOLUME 481211.057 3774109.231 371.23
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LOCATION L0000155 VOLUME 481260.433 3774112.733 371.15
LOCATION L0000156 VOLUME 481276.892 3774113.901 369.63
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LOCATION L0000158 VOLUME 481309.809 3774116.235 366.45
LOCATION L0000159 VOLUME 481326.268 3774117.402 366.19
LOCATION L0000160 VOLUME 481342.726 3774118.570 366.09
LOCATION L0000161 VOLUME 481359.185 3774119.737 366.19
LOCATION L0000162 VOLUME 481375.644 3774120.904 367.06
LOCATION L0000163 VOLUME 481392.102 3774122.072 368.19
LOCATION L0000164 VOLUME 481408.561 3774123.239 369.79
LOCATION L0000165 VOLUME 481425.020 3774124.406 370.89
LOCATION L0000166 VOLUME 481441.478 3774125.573 371.78

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   LOCATION L0000168     VOLUME   481474.396 3774127.908 372.24
   LOCATION L0000169     VOLUME   481490.854 3774129.075 372.32
   LOCATION L0000170     VOLUME   481507.313 3774130.242 372.37
   LOCATION L0000171     VOLUME   481523.772 3774131.410 372.45
   LOCATION L0000172     VOLUME   481540.230 3774132.577 372.56
   LOCATION L0000173     VOLUME   481556.689 3774133.744 372.69
   LOCATION L0000174     VOLUME   481569.120 3774140.206 372.78
   LOCATION L0000175     VOLUME   481574.638 3774155.756 372.94
   LOCATION L0000176     VOLUME   481580.156 3774171.306 373.23
   LOCATION L0000177     VOLUME   481585.222 3774186.998 373.58
   LOCATION L0000178     VOLUME   481589.597 3774202.907 374.02
   LOCATION L0000179     VOLUME   481593.972 3774218.817 374.51
   LOCATION L0000180     VOLUME   481598.347 3774234.726 375.21
   LOCATION L0000181     VOLUME   481601.061 3774250.953 375.70
   LOCATION L0000182     VOLUME   481602.861 3774267.355 376.09
   LOCATION L0000183     VOLUME   481604.661 3774283.756 376.47
   LOCATION L0000184     VOLUME   481606.461 3774300.158 376.80
   LOCATION L0000185     VOLUME   481608.261 3774316.559 377.07
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   LOCATION L0000191     VOLUME   481610.318 3774415.197 370.17
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   LOCATION L0000195     VOLUME   481606.553 3774481.089 371.05
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   LOCATION L0000197     VOLUME   481604.670 3774514.035 372.97
   LOCATION L0000198     VOLUME   481602.009 3774530.276 374.65
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   LOCATION L0000200     VOLUME   481595.094 3774562.544 377.22
   LOCATION L0000201     VOLUME   481591.637 3774578.678 377.46
   LOCATION L0000202     VOLUME   481588.180 3774594.811 377.16
   LOCATION L0000203     VOLUME   481584.723 3774610.945 376.91
** End of LINE VOLUME Source ID = TRUCK1
** Source Parameters **
** LINE VOLUME Source ID = IDLE
   SRCPARAM L0000051     0.1666666667      3.40      1.72      3.16
   SRCPARAM L0000052     0.1666666667      3.40      1.72      3.16
   SRCPARAM L0000053     0.1666666667      3.40      1.72      3.16
   SRCPARAM L0000054     0.1666666667      3.40      1.72      3.16
   SRCPARAM L0000055     0.1666666667      3.40      1.72      3.16
   SRCPARAM L0000056     0.1666666667      3.40      1.72      3.16
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** LINE VOLUME Source ID = DSLCARGO
   SRCPARAM L0000057           0.5      3.40      4.51      3.16
   SRCPARAM L0000058           0.5      3.40      4.51      3.16
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** LINE VOLUME Source ID = TRUCK1
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   SRCPARAM L0000066     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000067     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000068     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000069     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000070     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000071     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000072     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000073     0.0071942446      3.40      7.67      3.16
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   SRCPARAM L0000185     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000186     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000187     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000188     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000189     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000190     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000191     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000192     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000193     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000194     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000195     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000196     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000197     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000198     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000199     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000200     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000201     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000202     0.0071942446      3.40      7.67      3.16
   SRCPARAM L0000203     0.0071942446      3.40      7.67      3.16
** ------------------------------------------------------------------
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   URBANSRC ALL
   SRCGROUP DSLCARGO L0000057 L0000058
   SRCGROUP IDLE     L0000051 L0000052 L0000053 L0000054 L0000055
L0000056
   SRCGROUP ALL
SO FINISHED
**
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** AERMOD Receptor Pathway
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**
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```

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RE STARTING
   INCLUDED "5th and Central Ops.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
** Surface File Path: C:\Users\nlorenzen\Desktop\HARP2\5th and Central
Ops\Met data\RDLD_V9_ADJU\
   SURFFILE "Met data\RDLD_V9_ADJU\RDLD_v9.SFC"
** Profile File Path: C:\Users\nlorenzen\Desktop\HARP2\5th and Central
Ops\Met data\RDLD_V9_ADJU\
   PROFFILE "Met data\RDLD_V9_ADJU\RDLD_v9.PFL"
   SURFDATA 3171 2012
   UAIRDATA 3190 2012
   SITEDATA 99999 2012
   PROFBASE 481.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "C:\Users\nlorenzen\Desktop\HARP2\5th and
Central Ops\5th and Central Ops.AD\01H1GALL.PLT" 31
   PLOTFILE 1 DSLCARGO 1ST "C:\Users\nlorenzen\Desktop\HARP2\5th and
Central Ops\5th and Central Ops.AD\01H1G001.PLT" 32
   PLOTFILE 1 IDLE 1ST "C:\Users\nlorenzen\Desktop\HARP2\5th and
Central Ops\5th and Central Ops.AD\01H1G002.PLT" 33
   PLOTFILE PERIOD ALL "C:\Users\nlorenzen\Desktop\HARP2\5th and
Central Ops\5th and Central Ops.AD\PE00GALL.PLT" 34
   PLOTFILE PERIOD DSLCARGO "C:\Users\nlorenzen\Desktop\HARP2\5th and
Central Ops\5th and Central Ops.AD\PE00G001.PLT" 35
   PLOTFILE PERIOD IDLE "C:\Users\nlorenzen\Desktop\HARP2\5th and
Central Ops\5th and Central Ops.AD\PE00G002.PLT" 36
   SUMMFILE "C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5th
and Central Ops.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
```

```
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

HARP2 - HRACalc (dated 22118) 6/1/2023 10:05:18 AM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

Pathway receptors loaded successfully

****

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

****

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25

Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25

0<2 Years Bin: 2

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 14

16 to 70 Years Bin: 0

****

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: True

Dermal: True

Mother's milk: True

Water: False

Fish: False

Homegrown crops: True

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

****

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: ON

****

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05

Soil mixing depth (m): 0.01

Dermal climate: Mixed

****

HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden

Fraction leafy: 0.137

Fraction exposed: 0.137

Fraction protected: 0.137

Fraction root: 0.137

****

TIER 2 SETTINGS

Tier2 not used.

****

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to: C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5TH AND CENTRAL OPS\hra\OP_MitCancerRisk.csv

Cancer risk total by receptor saved to: C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5TH AND CENTRAL OPS\hra\OP_MitCancerRiskSumByRec.csv

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to: C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5TH AND CENTRAL OPS\hra\OP_MitNCChronicRisk.csv

Chronic risk total by receptor saved to: C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5TH AND CENTRAL OPS\hra\OP_MitNCChronicRiskSumByRec.csv

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to: C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5TH AND CENTRAL OPS\hra\OP_MitNCAcuteRisk.csv

Acute risk total by receptor saved to: C:\Users\nlorenzen\Desktop\HARP2\5th and Central Ops\5TH AND CENTRAL OPS\hra\OP_MitNCAcuteRiskSumByRec.csv

HRA ran successfully

**HARP - Air Dispersion Modeling and Risk Tool v22118
**6/1/2023
**Exported Risk Results

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RISI	SOIL_RISK
1	ALL		479900.6	3774142	5.11E-06	30YrCancei	5.11E-06	0
4	ALL		479792	3774231	3.14E-06	30YrCancei	3.14E-06	0
5	ALL		479827.8	3774240	3.02E-06	30YrCancei	3.02E-06	0
2	ALL		479888.1	3774071	2.77E-06	30YrCancei	2.77E-06	0
6	ALL		479856.9	3774251	2.33E-06	30YrCancei	2.33E-06	0
3	ALL		479759.3	3774230	2.30E-06	30YrCancei	2.30E-06	0
7	ALL		479889.2	3774262	1.65E-06	30YrCancei	1.65E-06	0
36	ALL		480259.7	3774207	2.37E-07	30YrCancei	2.37E-07	0
35	ALL		480287	3774148	2.23E-07	30YrCancei	2.23E-07	0
37	ALL		480287.6	3774200	2.15E-07	30YrCancei	2.15E-07	0
39	ALL		480304.3	3774199	2.03E-07	30YrCancei	2.03E-07	0
38	ALL		480303.8	3774217	2.00E-07	30YrCancei	2.00E-07	0
31	ALL		480417.1	3774198	1.69E-07	30YrCancei	1.69E-07	0
33	ALL		480362.8	3774199	1.68E-07	30YrCancei	1.68E-07	0
30	ALL		480441.2	3774196	1.60E-07	30YrCancei	1.60E-07	0
32	ALL		480386	3774202	1.56E-07	30YrCancei	1.56E-07	0
40	ALL		480495.2	3774097	1.51E-07	30YrCancei	1.51E-07	0
34	ALL		480547.8	3774251	1.18E-07	30YrCancei	1.18E-07	0
55	ALL		480697.5	3774364	7.27E-08	30YrCancei	7.27E-08	0
53	ALL		480799.8	3774460	5.29E-08	30YrCancei	5.29E-08	0
54	ALL		480776.4	3774481	5.26E-08	30YrCancei	5.26E-08	0
52	ALL		480822.3	3774461	5.12E-08	30YrCancei	5.12E-08	0
51	ALL		480857.2	3774458	4.92E-08	30YrCancei	4.92E-08	0
50	ALL		480897.9	3774452	4.72E-08	30YrCancei	4.72E-08	0
49	ALL		480917.5	3774454	4.59E-08	30YrCancei	4.59E-08	0
48	ALL		480958.6	3774448	4.42E-08	30YrCancei	4.42E-08	0
47	ALL		480979.2	3774450	4.29E-08	30YrCancei	4.29E-08	0
46	ALL		480998.3	3774446	4.22E-08	30YrCancei	4.22E-08	0
45	ALL		481017.9	3774443	4.14E-08	30YrCancei	4.14E-08	0
44	ALL		481038	3774442	4.06E-08	30YrCancei	4.06E-08	0
43	ALL		481062.4	3774438	3.97E-08	30YrCancei	3.97E-08	0
42	ALL		481105	3774438	3.78E-08	30YrCancei	3.78E-08	0
41	ALL		481127	3774435	3.72E-08	30YrCancei	3.72E-08	0
28	ALL		481379.2	3774441	2.90E-08	30YrCancei	2.90E-08	0
27	ALL		481397.1	3774447	2.83E-08	30YrCancei	2.83E-08	0
26	ALL		481412.9	3774449	2.78E-08	30YrCancei	2.78E-08	0
25	ALL		481430	3774453	2.72E-08	30YrCancei	2.72E-08	0
24	ALL		481449.5	3774456	2.67E-08	30YrCancei	2.67E-08	0
23	ALL		481467.8	3774464	2.60E-08	30YrCancei	2.60E-08	0
29	ALL		481537.3	3774435	2.58E-08	30YrCancei	2.58E-08	0
16	ALL		481495	3774487	2.46E-08	30YrCancei	2.46E-08	0
15	ALL		481508	3774498	2.40E-08	30YrCancei	2.40E-08	0
14	ALL		481519.8	3774506	2.35E-08	30YrCancei	2.35E-08	0

13	ALL	481535.7	3774518	2.28E-08	30YrCancer	2.28E-08	0
12	ALL	481541	3774539	2.21E-08	30YrCancer	2.21E-08	0
10	ALL	481535.7	3774554	2.17E-08	30YrCancer	2.17E-08	0
11	ALL	481521.5	3774575	2.13E-08	30YrCancer	2.13E-08	0
9	ALL	481536.5	3774589	2.07E-08	30YrCancer	2.07E-08	0
8	ALL	481539.8	3774616	1.99E-08	30YrCancer	1.99E-08	0
17	ALL	481521.5	3774629	1.98E-08	30YrCancer	1.98E-08	0
18	ALL	481524.3	3774654	1.92E-08	30YrCancer	1.92E-08	0
19	ALL	481534.5	3774683	1.83E-08	30YrCancer	1.83E-08	0
20	ALL	481532.4	3774699	1.80E-08	30YrCancer	1.80E-08	0
21	ALL	481533.3	3774714	1.77E-08	30YrCancer	1.77E-08	0

DERMAL_R	MMILK_RIS	WATER_RIS	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RIS	PIG_RISK	CHICKEN_R
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Appendix B
Biological Resources Attachments

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (San Bernardino North (3411723) OR San Bernardino South (3411713) OR Riverside East (3311783) OR Sunnymead (3311782) OR Redlands (3411712) OR Harrison Mtn. (3411722) OR Keller Peak (3411721) OR Yucaipa (3411711) OR El Casco (3311781))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Allium howellii var. clokeyi Mt. Pinos onion	PMLIL02161	None	None	G4T2	S2	1B.3
Allium marvinii Yucaipa onion	PMLIL02330	None	None	G1	S1	1B.2
Anniella stebbinsi Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Astragalus hornii var. hornii Horn's milk-vetch	PDFAB0F421	None	None	GUT1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex coronata var. notatior San Jacinto Valley crownscale	PDCHE040C2	Endangered	None	G4T1	S1	1B.1
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Batrachoseps gabrieli San Gabriel slender salamander	AAAAD02110	None	None	G2G3	S2S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Berberis nevinii Nevin's barberry	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus morrisoni Morrison bumble bee	IIHYM24460	None	None	G3	S1S2	
Brodiaea filifolia thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Calochortus palmeri var. palmeri Palmer's mariposa-lily	PMLIL0D122	None	None	G3T2	S2	1B.2
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Canyon Live Oak Ravine Forest Canyon Live Oak Ravine Forest	CTT61350CA	None	None	G3	S3.3	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
Castilleja cinerea ash-gray paintbrush	PDSCR0D0H0	Threatened	None	G1G2	S1S2	1B.2
Castilleja lasiorhyncha San Bernardino Mountains owl's-clover	PDSCR0D410	None	None	G2?	S2?	1B.2
Catostomus santaanae Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
Centromadia pungens ssp. laevis smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
Ceratochrysis longimala Desert cuckoo wasp	IIHYM71040	None	None	G1	S1	
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Charina umbratica southern rubber boa	ARADA01011	None	Threatened	G2G3	S2S3	
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
Chorizanthe xanti var. leucotheca white-bracted spineflower	PDPGN040Z1	None	None	G4T3	S3	1B.2
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Coleonyx variegatus abbotti San Diego banded gecko	ARACD01031	None	None	G5T5	S1S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Cuscuta obtusiflora var. glandulosa Peruvian dodder	PDCUS01111	None	None	G5T4?	SH	2B.2
Diadophis punctatus modestus San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3	S2?	
Diplectrona californica California diplectronan caddisfly	IITRI23010	None	None	G1G2	S1	
Dipodomys merriami parvus San Bernardino kangaroo rat	AMAFD03143	Endangered	Candidate Endangered	G5T1	S1	SSC
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Threatened	Threatened	G2	S2	
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S3	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eriastrum densifolium ssp. sanctorum Santa Ana River woollystar	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
Euchloe hyantis andrewsi Andrew's marble butterfly	IILEPA5032	None	None	G4G5T1	S2	
Eugnosta busckana Busck's gallmoth	IILEM2X090	None	None	G1G3	S2S3	
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
Euphydryas editha quino quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Fimbristylis thermalis hot springs fimbristylis	PMCYP0B0N0	None	None	G4	S1S2	2B.2
Galium californicum ssp. primum Alvin Meadow bedstraw	PDRUB0N0E6	None	None	G5T2	S2	1B.2
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Glaucomys oregonensis californicus San Bernardino flying squirrel	AMAFB09021	None	None	G5T1T2	S1S2	SSC
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Helianthus nuttallii ssp. parishii Los Angeles sunflower	PDAST4N102	None	None	G5TX	SX	1A
Heuchera parishii Parish's alumroot	PDSAX0E1F0	None	None	G3	S3	1B.3
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Imperata brevifolia California satintail	PMPOA3D020	None	None	G3	S3	2B.1
Ivesia argyrocoma var. argyrocoma silver-haired ivesia	PDROS0X021	None	None	G2T2	S2	1B.2
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G4G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Leptonycteris yerbabuenae lesser long-nosed bat	AMACB03030	Delisted	None	G3	S1	SSC
Lepus californicus bennettii San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	
Lilium parryi lemon lily	PMLIL1A0J0	None	None	G3	S3	1B.2
Lycium parishii Parish's desert-thorn	PDSOL0G0D0	None	None	G4	S1	2B.3
Malacothamnus parishii Parish's bush-mallow	PDMAL0Q0C0	None	None	GXQ	SX	1A
Monardella macrantha ssp. hallii Hall's monardella	PDLAM180E1	None	None	G5T3	S3	1B.3
Monardella pringlei Pringle's monardella	PDLAM180J0	None	None	GX	SX	1A
Nama stenocarpa mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Nasturtium gambelii Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Neolarra alba white cuckoo bee	IIHYM81010	None	None	GH	SH	
Neotamias speciosus speciosus lodgepole chipmunk	AMAFB02172	None	None	G4T3T4	S2	
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nyctinomops femorosaccus pocketed free-tailed bat	AMACD04010	None	None	G5	S3	SSC
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	Candidate Endangered	G5T1Q	S1	
Onychomys torridus ramona southern grasshopper mouse	AMAFF06022	None	None	G5T3	S3	SSC
Packera bernardina San Bernardino ragwort	PDAST8H0E0	None	None	G2	S2	1B.2
Pelazoneuron puberulum var. sonorense Sonoran maiden fern	PPTHE05192	None	None	G5T3	S2	2B.2
Perideridia parishii ssp. parishii Parish's yampah	PDAPI1N0C2	None	None	G4T3T4	S2	2B.2
Perognathus alticola alticola white-eared pocket mouse	AMAFD01081	None	None	G2TH	SH	SSC
Perognathus longimembris brevinasus Los Angeles pocket mouse	AMAFD01041	None	None	G5T2	S1S2	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Plegadis chihi white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T3Q	S2	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Rana muscosa southern mountain yellow-legged frog	AAABH01330	Endangered	Endangered	G1	S1	WL
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	IIDIP05021	Endangered	None	G1T1	S1	
Rhinichthys osculus ssp. 8 Santa Ana speckled dace	AFCJB3705K	None	None	G5T1	S1	SSC
Ribes divaricatum var. parishii Parish's gooseberry	PDGRO020F3	None	None	G5TX	SX	1A
Riversidian Alluvial Fan Sage Scrub Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S3	SSC
Schoenus nigricans black bog-rush	PMCYP0P010	None	None	G4	S2	2B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sidalcea hickmanii ssp. parishii Parish's checkerbloom	PDMAL110A3	None	Rare	G3T1	S1	1B.2
Sidalcea malviflora ssp. dolosa Bear Valley checkerbloom	PDMAL110FH	None	None	G5T2	S2	1B.2
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Sidalcea pedata bird-foot checkerbloom	PDMAL110L0	Endangered	Endangered	G1	S1	1B.1
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Mixed Riparian Forest Southern Mixed Riparian Forest	CTT61340CA	None	None	G2	S2.1	
Southern Riparian Forest Southern Riparian Forest	CTT61300CA	None	None	G4	S4	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Southern Willow Scrub Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3S4	SSC
Sphenopholis obtusata prairie wedge grass	PMPOA5T030	None	None	G5	S2	2B.2
Spinus lawrencei Lawrence's goldfinch	ABPBY06100	None	None	G3G4	S4	
Streptanthus bernardinus Laguna Mountains jewelflower	PDBRA2G060	None	None	G3G4	S3S4	4.3
Streptanthus campestris southern jewelflower	PDBRA2G0B0	None	None	G3	S3	1B.3
Streptocephalus woottoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Trichocoronis wrightii var. wrightii Wright's trichocoronis	PDAST9F031	None	None	G4T3	S1	2B.1
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	

Record Count: 128

	Common Name	Status (Federal/ State)	Habitat	Appropriate habitats ?	Potential to Occur
Amphibians					
Batrachoseps gabrieli	San Gabriel slender salamander	None/None	Talus slopes in forested areas, often near streams	N	Not expected to occur. No suitable vegetation present.
Rana draytonii	California red-legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	N	Not expected to occur. No suitable vegetation present.
Rana muscosa	mountain yellow-legged frog	FE/SE, WL	Lakes, ponds, meadow streams, isolated pools, and open riverbanks; rocky canyons in narrow canyons and in chaparral	N	Not expected to occur. No suitable vegetation present.
Spea hammondii	western spadefoot	None/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	N	Not expected to occur. No suitable vegetation present.
Reptiles					
Anniella stebbinsi	southern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	N	Not expected to occur. No suitable vegetation present.
Arizona elegans occidentalis	California glossy snake	None/SSC	Arid scrub, rocky washes, grasslands, chaparral, open areas with loose soil	N	Not expected to occur. No suitable vegetation present.
Aspidoscelis hyperythra	orange-throated whiptail	None/WL	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	N	Not expected to occur. No suitable vegetation present.
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	N	Not expected to occur. No suitable vegetation present.
Charina umbratica	southern rubber boa	None/ST	Montane oak–conifer and mixed-conifer forests, montane chaparral, wet meadows; usually in vicinity of streams or wet meadows	N	Not expected to occur. No suitable vegetation present.
Coleonyx variegatus abbotti	San Diego banded gecko	None/SSC	Rocky areas within coastal scrub and chaparral	N	Not expected to occur. No suitable vegetation present.
Crotalus ruber	red diamondback rattlesnake	None/SSC	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	N	Not expected to occur. No suitable vegetation present.
Diadophis punctatus modestus	San Bernardino ring-necked snake	None/None	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland	N	Not expected to occur. No suitable vegetation present.
Emys marmorata	western pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	N	Not expected to occur. No suitable vegetation present.

Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	N	Not expected to occur. No suitable vegetation present.
Salvadora hexalepis virgultea	coast patch-nosed snake	None/SSC	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	N	Not expected to occur. No suitable vegetation present.
Thamnophis hammondii	two-striped gartersnake	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	N	Not expected to occur. No suitable vegetation present.
Birds					
Accipiter cooperii (nesting)	Cooper's hawk	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	N	Not expected to occur. No suitable vegetation present.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	N	Not expected to occur. No suitable vegetation present.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	N	Not expected to occur. No suitable vegetation present.
Aquila chrysaetos (nesting & wintering)	golden eagle	None/FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	N	Not expected to occur. No suitable vegetation present.
Artemisiospiza belli belli	Bell's sage sparrow	None/WL	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	N	Not expected to occur. No suitable vegetation present.
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	N	Not expected to occur. No suitable vegetation present.
Buteo regalis (wintering)	ferruginous hawk	None/WL	Winters and forages in open, dry country, grasslands, open fields, agriculture	N	Not expected to occur. No suitable vegetation present.
Buteo swainsoni (nesting)	Swainson's hawk	None/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	N	Not expected to occur. No suitable vegetation present.
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	N	Not expected to occur. No suitable vegetation present.
Elanus leucurus (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	N	Not expected to occur. No suitable vegetation present.
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	N	Not expected to occur. No suitable vegetation present.
Eremophila alpestris actia	California horned lark	None/WL	This subspecies of horned lark occurs on the state's southern and central coastal slope and in the San Joaquin Valley. Nests and forages in grasslands, disturbed lands, agriculture, and beaches.	N	Not expected to occur. No suitable vegetation present.

Falco columbarius (wintering)	merlin	None/WL	Forages in semi-open areas, including coastline, grassland, agriculture, savanna, woodland, lakes, and wetlands	N	Not expected to occur. No suitable vegetation present.
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	FPD/FP, SE	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	N	Not expected to occur. No suitable vegetation present.
Icteria virens (nesting)	yellow-breasted chat	None/SSC	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	N	Not expected to occur. No suitable vegetation present.
Lanius ludovicianus (nesting)	loggerhead shrike	None/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	N	Not expected to occur. No suitable vegetation present.
Laterallus jamaicensis coturniculus	California black rail	None/FP, ST	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	N	Not expected to occur. No suitable vegetation present.
Plegadis chihi (nesting colony)	white-faced ibis	None/WL	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	N	Not expected to occur. No suitable vegetation present.
Polioptila californica californica	coastal California gnatcatcher	FT/SSC	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	N	Not expected to occur. No suitable vegetation present.
Setophaga petechia (nesting)	yellow warbler	None/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	N	Not expected to occur. No suitable vegetation present.
Spinus lawrencei (nesting)	Lawrence's goldfinch	BCC/None	Nests and forages in open oak, arid woodlands, and chaparral near water	N	Not expected to occur. No suitable vegetation present.
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	N	Not expected to occur. No suitable vegetation present.
Fishes					
Catostomus santaanae	Santa Ana sucker	FT/None	Small, shallow, cool, clear streams less than 7 meters (23 feet) in width and a few centimeters to more than a meter (1.5 inches to more than 3 feet) in depth; substrates are generally coarse gravel, rubble, and boulder	N	Not expected to occur. No suitable vegetation present.
Gila orcuttii	arroyo chub	None/SSC	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	N	Not expected to occur. No suitable vegetation present.
Oncorhynchus mykiss irideus pop. 10	southern steelhead - southern California DPS	FE/SCE	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	N	Not expected to occur. No suitable vegetation present.
Rhinichthys osculus ssp. 8	Santa Ana speckled dace	None/SSC	Headwaters of the Santa Ana and San Gabriel Rivers; may be extirpated from the Los Angeles River system	N	Not expected to occur. No suitable vegetation present.
Mammals					

Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	N	Not expected to occur. No suitable vegetation present.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/SSC	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	N	Not expected to occur. No suitable vegetation present.
Dasypterus xanthinus	western yellow bat	None/SSC	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	N	Not expected to occur. No suitable vegetation present.
Dipodomys merriami parvus	San Bernardino kangaroo rat	FE/SSC, SCE	Sparse scrub habitat, alluvial scrub/coastal scrub habitats on gravelly and sandy soils near river and stream terraces	N	Not expected to occur. No suitable vegetation present.
Dipodomys stephensi	Stephens' kangaroo rat	FT/ST	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	N	Not expected to occur. No suitable vegetation present.
Eumops perotis californicus	western mastiff bat	None/SSC	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	N	Not expected to occur. No suitable vegetation present.
Glaucomys oregonensis californicus	San Bernardino flying squirrel	None/SSC	Coniferous and deciduous forests, including riparian forests	N	Not expected to occur. No suitable vegetation present.
Leptonycteris yerbabuenae	lesser long-nosed bat	FPD/SSC	Sonoran desert scrub, semi-desert grasslands, lower oak woodlands	N	Not expected to occur. No suitable vegetation present.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/None	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	N	Not expected to occur. No suitable vegetation present.
Neotamias speciosus speciosus	lodgepole chipmunk	None/None	Lodgepole pine forests	N	Not expected to occur. No suitable vegetation present.
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	N	Not expected to occur. No suitable vegetation present.
Nyctinomops femorosaccus	pocketed free-tailed bat	None/SSC	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	N	Not expected to occur. No suitable vegetation present.
Onychomys torridus ramona	southern grasshopper mouse	None/SSC	Grassland and sparse coastal scrub	N	Not expected to occur. No suitable vegetation present.
Perognathus alticola alticolus	white-eared pocket mouse	None/SSC	Arid ponderosa pine communities	N	Not expected to occur. No suitable vegetation present.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/SSC	Lower-elevation grassland, alluvial sage scrub, and coastal scrub	N	Not expected to occur. No suitable vegetation present.

Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	N	Not expected to occur. No suitable vegetation present.
Invertebrates					
Bombus crotchii	Crotch bumble bee	None/SCE	Open grassland and scrub communities supporting suitable floral resources.	N	Not expected to occur. No suitable vegetation present.
Ceratochrysis longimala	Desert cuckoo wasp	None/None	(blank)	N	Not expected to occur. No suitable vegetation present.
Diplectrona californica	California diplectronan caddisfly	None/None	(blank)	N	Not expected to occur. No suitable vegetation present.
Euchloe hyantis andrewsi	Andrew's marble butterfly	None/None	Yellow pine forest; host plants are Laguna Mountains jewel-flower (Streptanthus bernardinus) and Holboell's rockcress (Boechera pinetorum (Arabis holboellii var. pinetorum))	N	Not expected to occur. No suitable vegetation present.
Euphydryas editha quino	quino checkerspot butterfly	FE/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include Plantago erecta, P. patagonica, and Antirrhinum coulterianum, among others	N	Not expected to occur. No suitable vegetation present.
Neolarra alba	white cuckoo bee	None/None	Known only from 6 historical localities in Southern California; has not been collected since 1946	N	Not expected to occur. No suitable vegetation present.
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	FE/None	Delhi fine sandy soils and dunes, scrub and ruderal vegetation in the sand verbena series with <50% cover	N	Not expected to occur. No suitable vegetation present.
Streptocephalus woottoni	Riverside fairy shrimp	FE/None	Vernal pools, non-vegetated ephemeral pools	N	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status (Federal/ State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Blooming during survey?	Elevation appropriate?	Habitats Appropriate?	Potential to Occur
Allium howellii var. clokeyi	Mt. Pinos onion	None/None/1B.3	Great Basin scrub, Meadows and seeps (edges), Pinyon and juniper woodland/perennial bulbiferous herb/Apr–June/4,265–6,065	Y	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Allium marvinii	Yucaipa onion	None/None/1B.2	Chaparral (clay, openings)/perennial bulbiferous herb/Apr–May/2,490–3,490	Y	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Arenaria paludicola	marsh sandwort	FE/SE/1B.1	Marshes and swamps (brackish, freshwater); Openings, Sandy/perennial stoloniferous herb/May–Aug/10–560	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Astragalus hornii var. hornii	Horn's milk-vetch	None/None/1B.1	Meadows and seeps, Playas; Alkaline, Lake Margins/annual herb/May–Oct/195–2,785	N	Y	N	Not expected to occur. No suitable vegetation present.
Atriplex coronata var. notatior	San Jacinto Valley crownscale	FE/None/1B.1	Playas, Valley and foothill grassland (mesic), Vernal pools; Alkaline/annual herb/Apr–Aug/455–1,640	Y	Y	N	Not expected to occur. No suitable vegetation present.
Atriplex serenana var. davidsonii	Davidson's saltscale	None/None/1B.2	Coastal bluff scrub, Coastal scrub; Alkaline/annual herb/Apr–Oct/35–655	Y	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Berberis nevinii	Nevin's barberry	FE/SE/1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; Gravelly (sometimes), Sandy (sometimes)/perennial evergreen shrub/(Feb)Mar–June/230–2,705	Y	Y	N	Not expected to occur. No suitable vegetation present.
Brodiaea filifolia	thread-leaved brodiaea	FT/SE/1B.1	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools; Clay (often)/perennial bulbiferous herb/Mar–June/80–3,670	Y	Y	N	Not expected to occur. No suitable vegetation present.
Calochortus palmeri var. palmeri	Palmer's mariposa-lily	None/None/1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps; Mesic/perennial bulbiferous herb/Apr–July/2,325–7,840	Y	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Calochortus plummerae	Plummer's mariposa-lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; Granitic, Rocky/perennial bulbiferous herb/May–July/330–5,575	N	Y	N	Not expected to occur. No suitable vegetation present.
Carex comosa	bristly sedge	None/None/2B.1	Coastal prairie, Marshes and swamps (lake margins), Valley and foothill grassland/perennial rhizomatous herb/May–Sep/0–2,050	N	Y	N	Not expected to occur. No suitable vegetation present.
Castilleja cinerea	ash-gray paintbrush	FT/None/1B.2	Meadows and seeps, Mojavean desert scrub, Pebble (Pavement) plain, Pinyon and juniper woodland, Upper montane coniferous forest (clay, openings)/perennial herb (hemiparasitic)/June–Aug/5,905–9,710	N	N	N	Not expected to occur. The site is outside of the species' known elevation

							range and there is no suitable vegetation present.
Castilleja lasiorhyncha	San Bernardino Mountains owl's-clover	None/None/1B.2	Chaparral, Meadows and seeps, Pebble (Pavement) plain, Riparian woodland, Upper montane coniferous forest; Mesic/annual herb (hemiparasitic)/May–Aug/4,265–7,840	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Centromadia pungens ssp. laevis	smooth tarplant	None/None/1B.1	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; Alkaline/annual herb/Apr–Sep/0–2,095	Y	Y	N	Not expected to occur. No suitable vegetation present.
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	FE/SE/1B.2	Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Chorizanthe parryi var. parryi	Parry's spineflower	None/None/1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; Openings, Rocky (sometimes), Sandy (sometimes)/annual herb/Apr–June/900–4,000	Y	Y	N	Not expected to occur. No suitable vegetation present.
Chorizanthe xanti var. leucotheca	white-bracted spineflower	None/None/1B.2	Coastal scrub (alluvial fans), Mojavean desert scrub, Pinyon and juniper woodland; Gravelly (sometimes), Sandy (sometimes)/annual herb/Apr–June/985–3,935	Y	Y	N	Not expected to occur. No suitable vegetation present.
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	None/None/2B.2	Marshes and swamps (freshwater)/annual vine (parasitic)/July–Oct/50–920	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Dodecahema leptoceras	slender-horned spineflower	FE/SE/1B.1	Chaparral, Cismontane woodland, Coastal scrub (alluvial fans); Sandy/annual herb/Apr–June/655–2,490	Y	Y	N	Not expected to occur. No suitable vegetation present.
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	FE/SE/1B.1	Chaparral, Coastal scrub (alluvial fans); Gravelly (sometimes), Sandy (sometimes)/perennial herb/Apr–Sep/300–2,000	Y	Y	N	Not expected to occur. No suitable vegetation present.
Fimbristylis thermalis	hot springs fimbristylis	None/None/2B.2	Meadows and seeps (alkaline, near hot springs)/perennial rhizomatous herb/July–Sep/360–4,395	N	Y	N	Not expected to occur. No suitable vegetation present.
Galium californicum ssp. primum	Alvin Meadow bedstraw	None/None/1B.2	Chaparral, Lower montane coniferous forest; Granitic, Sandy/perennial herb/May–July/4,425–5,575	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	None/None/1A	Marshes and swamps (freshwater, coastal salt)/perennial rhizomatous herb/Aug–Oct/35–5,000	N	Y	N	Not expected to occur. No suitable vegetation present.
Heuchera parishii	Parish's alumroot	None/None/1B.3	Alpine boulder and rock field, Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest; Carbonate (sometimes), Rocky/perennial rhizomatous herb/June–Aug/4,920–12,465	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

Horkelia cuneata var. puberula	mesa horkelia	None/None/1B.1	Chaparral (maritime), Cismontane woodland, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/perennial herb/Feb–July(Sep)/230–2,655	Y	Y	N	Not expected to occur. No suitable vegetation present.
Imperata brevifolia	California satintail	None/None/2B.1	Chaparral, Coastal scrub, Meadows and seeps (often alkali), Mojavean desert scrub, Riparian scrub; Mesic/perennial rhizomatous herb/Sep–May/0–3,985	Y	Y	N	Not expected to occur. No suitable vegetation present.
Ivesia argyrocoma var. argyrocoma	silver-haired ivesia	None/None/1B.2	Meadows and seeps (alkaline), Pebble (Pavement) plain, Upper montane coniferous forest/perennial herb/June–Aug/4,795–9,710	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None/None/1B.1	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/5–4,000	Y	Y	N	Not expected to occur. No suitable vegetation present.
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	None/None/4.3	Chaparral, Coastal scrub/annual herb/Jan–July/5–2,900	Y	Y	N	Not expected to occur. No suitable vegetation present.
Lilium parryi	lemon lily	None/None/1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest; Mesic/perennial bulbiferous herb/July–Aug/4,000–9,005	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Lycium parishii	Parish's desert-thorn	None/None/2B.3	Coastal scrub, Sonoran desert scrub/perennial shrub/Mar–Apr/445–3,280	Y	Y	N	Not expected to occur. No suitable vegetation present.
Malacothamnus parishii	Parish's bush-mallow	None/None/1A	Chaparral, Coastal scrub/perennial deciduous shrub/June–July/1,000–1,490	N	Y	N	Not expected to occur. No suitable vegetation present.
Monardella macrantha ssp. hallii	Hall's monardella	None/None/1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland/perennial rhizomatous herb/June–Oct/2,395–7,200	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Monardella pringlei	Pringle's monardella	None/None/1A	Coastal scrub (sandy)/annual herb/May–June/985–1,310	N	Y	N	Not expected to occur. No suitable vegetation present.
Nama stenocarpa	mud nama	None/None/2B.2	Marshes and swamps (lake margins, riverbanks)/annual/perennial herb/Jan–July/15–1,640	Y	Y	N	Not expected to occur. No suitable vegetation present.
Nasturtium gambelii	Gambel's water cress	FE/ST/1B.1	Marshes and swamps (brackish, freshwater)/perennial rhizomatous herb/Apr–Oct/15–1,080	Y	Y	N	Not expected to occur. No suitable vegetation present.
Packera bernardina	San Bernardino ragwort	None/None/1B.2	Meadows and seeps (mesic, sometimes alkaline), Pebble (Pavement) plain, Upper montane coniferous forest/perennial herb/May–July/5,905–7,545	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

Pelazoneuron puberulum var. sonorense	Sonoran maiden fern	None/None/2B.2	Meadows and seeps (seeps, streams)/perennial rhizomatous herb/Jan–Sep/165–2,000	Y	Y	N	Not expected to occur. No suitable vegetation present.
Perideridia parishii ssp. parishii	Parish's yampah	None/None/2B.2	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest/perennial herb/June–Aug/4,805–9,840	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Ribes divaricatum var. parishii	Parish's gooseberry	None/None/1A	Riparian woodland/perennial deciduous shrub/Feb–Apr/215–985	Y	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Schoenus nigricans	black bog-rush	None/None/2B.2	Marshes and swamps (often alkaline)/perennial herb/Aug–Sep/490–6,560	N	Y	N	Not expected to occur. No suitable vegetation present.
Senecio aphanactis	chaparral ragwort	None/None/2B.2	Chaparral, Cismontane woodland, Coastal scrub; Alkaline (sometimes)/annual herb/Jan–Apr(May)/50–2,620	Y	Y	N	Not expected to occur. No suitable vegetation present.
Sidalcea hickmanii ssp. parishii	Parish's checkerbloom	None/SR/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest/perennial herb/(May)June–Aug/3,280–8,195	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Sidalcea malviflora ssp. dolosa	Bear Valley checkerbloom	None/None/1B.2	Lower montane coniferous forest (meadows, seeps), Meadows and seeps, Riparian woodland, Upper montane coniferous forest (meadows, seeps)/perennial herb/May–Aug/4,900–8,805	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Sidalcea neomexicana	salt spring checkerbloom	None/None/2B.2	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; Alkaline, Mesic/perennial herb/Mar–June/50–5,015	Y	Y	N	Not expected to occur. No suitable vegetation present.
Sidalcea pedata	bird-foot checkerbloom	FE/SE/1B.1	Meadows and seeps (mesic), Pebble (Pavement) plain/perennial herb/May–Aug/5,245–8,200	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Sphenopholis obtusata	prairie wedge grass	None/None/2B.2	Cismontane woodland, Meadows and seeps; Mesic/perennial herb/Apr–July/985–6,560	Y	Y	N	Not expected to occur. No suitable vegetation present.
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3	Chaparral, Lower montane coniferous forest/perennial herb/May–Aug/2,195–8,200	N	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Streptanthus campestris	southern jewelflower	None/None/1B.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland; Rocky/perennial herb/(Apr)May–July/2,950–7,545	Y	N	N	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

Symphyotrichum defoliatum	San Bernardino aster	None/None/1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Valley and foothill grassland (vernally mesic); Streambanks/perennial rhizomatous herb/July–Nov/5–6,690	N	Y	N	Not expected to occur. No suitable vegetation present.
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	None/None/2B.1	Marshes and swamps, Meadows and seeps, Riparian forest, Vernal pools; Alkaline/annual herb/May–Sep/15–1,425	N	Y	N	Not expected to occur. No suitable vegetation present.
Grand Total							

CNPS Rare Plant Inventory

CALIFORNIA NATIVE PLANT SOCIETY

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▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED
Abronia villosa var. *aurita*	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	None	None	G5T2?	S2	1B.1		2001-01-01
Acanthoscyphus parishii var. *parishii*	Parish's oxytheca	Polygonaceae	annual herb	Jun-Sep	None	None	G4? T3T4	S3S4	4.2	Yes	2007-04-05
Allium howellii var. *clokeyi*	Mt. Pinos onion	Alliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G4T2	S2	1B.3	Yes	1974-01-01
Allium marvinii	Yucaipa onion	Alliaceae	perennial bulbiferous herb	Apr-May	None	None	G1	S1	1B.2	Yes	2001-01-01
Androsace elongata ssp. *acuta*	California androsace	Primulaceae	annual herb	Mar-Jun	None	None	G5? T3T4	S3S4	4.2		1994-01-01
Arenaria paludicola	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	FE	CE	G1	S1	1B.1		1984-01-01
Artemisia palmeri	San Diego sagewort	Asteraceae	perennial deciduous shrub	(Feb)May-Sep	None	None	G3?	S3?	4.2		1974-01-01
Asplenium vespertinum	western spleenwort	Aspleniaceae	perennial rhizomatous herb	Feb-Jun	None	None	G3?	S4	4.2		1974-01-01
Astragalus hornii var. *hornii*	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	None	None	GUT1	S1	1B.1		2006-12-01
Astragalus pachypus var. *jaegeri*	Jaeger's milk-vetch	Fabaceae	perennial shrub	Dec-Jun	None	None	G4T1	S1	1B.1	Yes	1994-01-01
Atriplex coronata var. *notatior*	San Jacinto Valley crownscale	Chenopodiaceae	annual herb	Apr-Aug	FE	None	G4T1	S1	1B.1	Yes	1988-01-01
Atriplex serenana var. *davidsonii*	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G5T1	S1	1B.2		1994-01-01
Berberis nevinii	Nevin's barberry	Berberidaceae	perennial evergreen shrub	(Feb)Mar-Jun	FE	CE	G1	S1	1B.1	Yes	1980-01-01
Bouteloua trifida	three-awned grama	Poaceae	perennial herb	(Apr)May-Sep	None	None	G4G5	S3	2B.3		1974-01-01
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	FT	CE	G2	S2	1B.1	Yes	1974-01-01
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	None	None	G3G4	S3S4	4.2	Yes	1974-01-01

Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	Liliaceae	perennial bulbiferous herb	Apr-Jul	None	None	G3T2	S2	1B.2	Yes	1994-01-01
Calochortus plummerae	Plummer's mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G4	S4	4.2	Yes	1994-01-01
Calochortus simulans	La Panza mariposa-lily	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G2	S2	1B.3	Yes	1980-01-01
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	None	None	G5	S2	2B.1		1994-01-01
Castilleja cinerea	ash-gray paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Jun-Aug	FT	None	G1G2	S1S2	1B.2	Yes	1974-01-01
Castilleja lasiorhyncha	San Bernardino Mountains owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	May-Aug	None	None	G2?	S2?	1B.2	Yes	1980-01-01
Castilleja montigena	Heckard's paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	May-Aug	None	None	G3	S3	4.3	Yes	1974-01-01
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb	(Feb)Mar-May(Jun)	None	None	G4	S4	4.2	Yes	1974-01-01
Centromadia pungens ssp. *laevis*	smooth tarplant	Asteraceae	annual herb	Apr-Sep	None	None	G3G4T2	S2	1B.1	Yes	1994-01-01
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	FE	CE	G4?T1	S1	1B.2		1974-01-01
Chorizanthe leptotheca	Peninsular spineflower	Polygonaceae	annual herb	May-Aug	None	None	G3	S3	4.2		1994-01-01
Chorizanthe parryi var. *parryi*	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	None	None	G3T2	S2	1B.1	Yes	1994-01-01
Chorizanthe xanti var. *leucotheca*	white-bracted spineflower	Polygonaceae	annual herb	Apr-Jun	None	None	G4T3	S3	1B.2	Yes	1994-01-01
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2		1994-01-01
Cuscuta obtusiflora var. *glandulosa*	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	None	None	G5T4?	SH	2B.2		2011-08-24
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov	None	None	G4	S4	4.2		2001-01-01
Diplacus clevelandii	Cleveland's bush monkeyflower	Phrymaceae	perennial rhizomatous herb	Apr-Jul	None	None	G4	S4	4.2		1980-01-01
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	FE	CE	G1	S1	1B.1	Yes	1980-01-01
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	Polemoniaceae	perennial herb	Apr-Sep	FE	CE	G4T1	S1	1B.1	Yes	1980-01-01
Eriophyllum lanatum var. *obovatum*	southern Sierra woolly sunflower	Asteraceae	perennial herb	Jun-Jul	None	None	G5T4	S4	4.3	Yes	1974-01-01
Erythranthe exigua	San Bernardino Mountains monkeyflower	Phrymaceae	annual herb	May-Jul	None	None	G2	S2	1B.2		1974-01-01

Fimbristylis thermalis	hot springs fimbristylis	Cyperaceae	perennial rhizomatous herb	Jul-Sep	None	None	G4	S1S2	2B.2		1980-01-01
Frasera neglecta	pine green-gentian	Gentianaceae	perennial herb	May-Jul	None	None	G4	S4	4.3	Yes	1980-01-01
Fritillaria pinetorum	pine fritillary	Liliaceae	perennial bulbiferous herb	May-Jul(Sep)	None	None	G4	S4	4.3	Yes	2001-01-01
Galium californicum ssp. *primum*	Alvin Meadow bedstraw	Rubiaceae	perennial herb	May-Jul	None	None	G5T2	S2	1B.2	Yes	1974-01-01
Galium johnstonii	Johnston's bedstraw	Rubiaceae	perennial herb	Jun-Jul	None	None	G4	S4	4.3	Yes	1974-01-01
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	None	None	G5TX	SX	1A	Yes	1974-01-01
Heuchera caespitosa	urn-flowered alumroot	Saxifragaceae	perennial rhizomatous herb	May-Aug	None	None	G3	S3	4.3	Yes	1974-01-01
Heuchera parishii	Parish's alumroot	Saxifragaceae	perennial rhizomatous herb	Jun-Aug	None	None	G3	S3	1B.3	Yes	1974-01-01
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	3.2		1994-01-01
Horkelia cuneata var. *puberula*	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	None	None	G4T1	S1	1B.1	Yes	2001-01-01
Hulsea vestita ssp. *parryi*	Parry's sunflower	Asteraceae	perennial herb	Apr-Aug	None	None	G5T4	S4	4.3	Yes	1994-01-01
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	None	None	G3	S3	2B.1		2006-12-26
Ivesia argyrocoma var. *argyrocoma*	silver-haired ivesia	Rosaceae	perennial herb	Jun-Aug	None	None	G2T2	S2	1B.2	Yes	1974-01-01
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None	None	G4	S4	4.2	Yes	1994-01-01
Juncus duranii	Duran's rush	Juncaceae	perennial rhizomatous herb	Jul-Aug	None	None	G3	S3	4.3	Yes	1974-01-01
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1		1994-01-01
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	None	None	G5T3	S3	4.3		1994-01-01
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	None	None	G4T4?	S4?	4.2	Yes	1980-01-01
Lilium parryi	lemon lily	Liliaceae	perennial bulbiferous herb	Jul-Aug	None	None	G3	S3	1B.2		1974-01-01
Lycium parishii	Parish's desert-thorn	Solanaceae	perennial shrub	Mar-Apr	None	None	G4	S1	2B.3		1980-01-01
Malacothamnus parishii	Parish's bush-mallow	Malvaceae	perennial deciduous shrub	Jun-Jul	None	None	GXQ	SX	1A	Yes	1974-01-01

Monardella macrantha ssp. *hallii*	Hall's monardella	Lamiaceae	perennial rhizomatous herb	Jun-Oct	None	None	G5T3	S3	1B.3	Yes	1974-01-01
Monardella pringlei	Pringle's monardella	Lamiaceae	annual herb	May-Jun	None	None	GX	SX	1A	Yes	1974-01-01
Muhlenbergia californica	California muhly	Poaceae	perennial rhizomatous herb	Jun-Sep	None	None	G4	S4	4.3	Yes	1994-01-01
Muilla coronata	crowned muilla	Themidaceae	perennial bulbiferous herb	Mar-Apr(May)	None	None	G3	S3	4.2		1988-01-01
Nama stenocarpa	mud nama	Namaceae	annual/perennial herb	Jan-Jul	None	None	G4G5	S1S2	2B.2		1994-01-01
Nasturtium gambelii	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	FE	CT	G1	S1	1B.1		1980-01-01
Packera bernardina	San Bernardino ragwort	Asteraceae	perennial herb	May-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01
Pelazoneuron puberulum var. *sonorense*	Sonoran maiden fern	Thelypteridaceae	perennial rhizomatous herb	Jan-Sep	None	None	G5T3	S2	2B.2		1994-01-01
Perideridia parishii ssp. *parishii*	Parish's yampah	Apiaceae	perennial herb	Jun-Aug	None	None	G4T3T4	S2	2B.2		1974-01-01
Phacelia mohavensis	Mojave phacelia	Hydrophyllaceae	annual herb	Apr-Aug	None	None	G4Q	S4	4.3	Yes	1994-01-01
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	None	None	G1	S1	1B.1		1994-01-01
Piperia leptopetala	narrow-petaled rein orchid	Orchidaceae	perennial herb	May-Jul	None	None	G4	S4	4.3	Yes	2001-01-01
Pseudorontium cyathiferum	Deep Canyon snapdragon	Plantaginaceae	annual herb	Feb-Apr	None	None	G4G5	S1	2B.3		1980-01-01
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	Mar-Jun	None	None	G3	S3	4.2		1988-01-01
Ribes divaricatum var. *parishii*	Parish's gooseberry	Grossulariaceae	perennial deciduous shrub	Feb-Apr	None	None	G5TX	SX	1A	Yes	1988-01-01
Romneya coulteri	Coulter's matilija poppy	Papaveraceae	perennial rhizomatous herb	Mar-Jul(Aug)	None	None	G4	S4	4.2		1974-01-01
Rupertia rigida	Parish's rupertia	Fabaceae	perennial herb	Jun-Aug	None	None	G4	S4	4.3		1974-01-01
Schoenus nigricans	black bog-rush	Cyperaceae	perennial herb	Aug-Sep	None	None	G4	S2	2B.2		2001-01-01
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	None	None	G3	S2	2B.2		1994-01-01
Senecio astephanus	San Gabriel ragwort	Asteraceae	perennial herb	May-Jul	None	None	G3	S3	4.3	Yes	2006-12-21
Sidalcea hickmanii ssp. *parishii*	Parish's checkerbloom	Malvaceae	perennial herb	(May)Jun-Aug	None	CR	G3T1	S1	1B.2	Yes	1974-01-01
Sidalcea malviflora ssp. *dolosa*	Bear Valley checkerbloom	Malvaceae	perennial herb	May-Aug	None	None	G5T2	S2	1B.2	Yes	2012-06-13

Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	None	None	G4	S2	2B.2		1994-01-01
Sidalcea pedata	bird-foot checkerbloom	Malvaceae	perennial herb	May-Aug	FE	CE	G1	S1	1B.1	Yes	1974-01-01
Sidotheca caryophylloides	chickweed oxytheca	Polygonaceae	annual herb	Jul-Sep(Oct)	None	None	G4	S4	4.3	Yes	1980-01-01
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	None	None	G5	S2	2B.2		1974-01-01
Streptanthus bernardinus	Laguna Mountains jewelflower	Brassicaceae	perennial herb	May-Aug	None	None	G3G4	S3S4	4.3	Yes	1980-01-01
Streptanthus campestris	southern jewelflower	Brassicaceae	perennial herb	(Apr)May-Jul	None	None	G3	S3	1B.3		1994-01-01
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov	None	None	G2	S2	1B.2	Yes	2004-01-01
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	Asteraceae	annual herb	May-Sep	None	None	G4T3	S1	2B.1		1988-01-01
Trichostema micranthum	small-flowered bluecurls	Lamiaceae	annual herb	Jun-Sep	None	None	G4	S3	4.3		1974-01-01
Yucca brevifolia						CC	GNR	SNR	CBR		2011-12-13

Showing 1 to 90 of 90 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 26 May 2023].

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

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Location

San Bernardino County, California



Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250

2177 Salk Avenue • Suite 250
Carlsbad, CA 92008-7385

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Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat Dipodomys merriami parvus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2060	Endangered
Stephens' Kangaroo Rat Dipodomys stephensi (incl. D. cascus) Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3495	Threatened

Birds

NAME	STATUS
Coastal California Gnatcatcher Polioptila californica californica Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo Vireo bellii pusillus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher Empidonax traillii extimus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered

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Fishes

NAME	STATUS
Santa Ana Sucker Catostomus santaanae There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3785	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Nevin's Barberry Berberis nevinii Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8025	Endangered
San Diego Ambrosia Ambrosia pumila Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8287	Endangered
Santa Ana River Woolly-star Eriastrum densifolium ssp. sanctorum Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6575	Endangered
Slender-horned Spineflower Dodecahema leptoceras Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4007	Endangered

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Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird *Selasphorus sasin* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Bullock's Oriole *Icterus bullockii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
California Thrasher *Toxostoma redivivum* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Common Yellowthroat *Geothlypis trichas sinuosa* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Lawrence's Goldfinch *Carduelis lawrencei* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20

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Nuttall's Woodpecker Picoides nuttallii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Western Grebe aechmophorus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

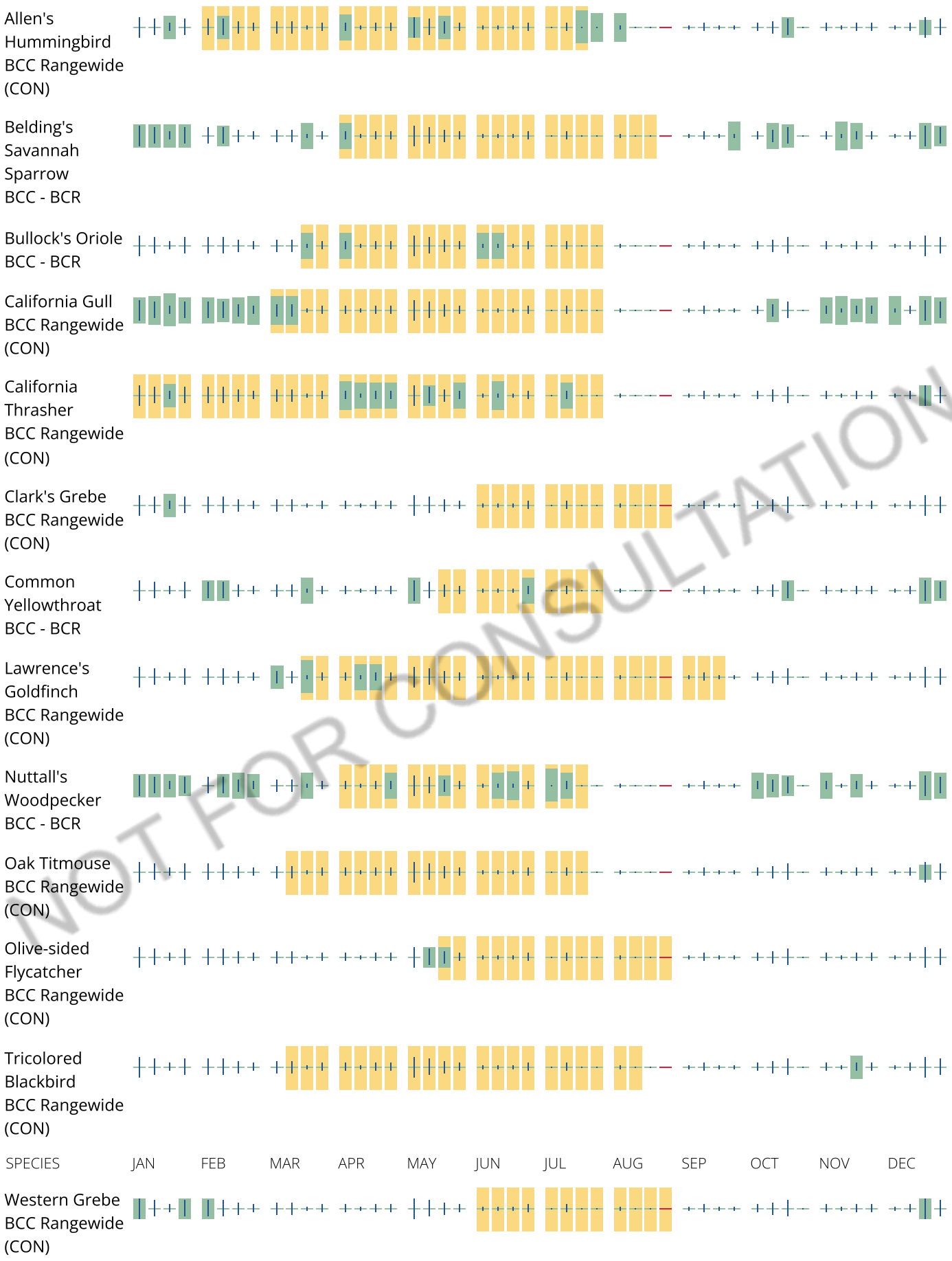
No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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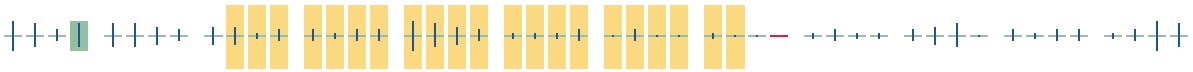
▪ probability of presence ▪ breeding season | survey effort – no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



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Wrentit
BCC Rangewide
(CON)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird

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on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is

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the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

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This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Appendix C
Arborist Report

Arborist Report

5th and Central Warehouse Project, City of Highland, California

MAY 2023

Prepared for:

PATRIOT DEVELOPMENT PARTNERS
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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
City	City of Highland
ISA	International Society of Arboriculture
project	5th and Central Warehouse Project

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1 Introduction

This report summarizes Dudek's evaluation and analysis of tree resources within the tree survey area at the proposed 5th and Central Warehouse Project (project) site, located at 26811, and 26875 West 5th Street in the City of Highland, California. The Project site is bounded by West 5th Street to the north, Central Avenue to the east, and East 3rd Street to the south (see Figure 1, Regional Map, and Figure 2, Vicinity Map).

The field inventory and assessments of the survey area's trees (development footprint) were conducted on May 1, 2023. The focus of Dudek's field evaluations was to identify and inventory all on-site trees that are subject to regulation by the City of Highland Municipal Code that could be affected by the proposed development per the site plan (see Figure 3, Site Plan). This report includes a discussion of tree inventory, evaluation and analysis methods, a summary of findings, identification of anticipated impacts, and tree protection and tree impact mitigation recommendations consistent with the City of Highland Municipal Code and the tree removal permit process specified therein.

The City of Highland (City) requires a permit for the removal or relocation of any heritage tree, which are defined as follows:

- **Heritage Tree:** Any live tree, shrub or plant which meets at least one of the following criteria:

  A. All woody plants in excess of 15 feet in height and having a single trunk circumference of 24 inches or more, as measured four and one-half feet above ground level; or
  B. Multitrunk tree(s) having a total circumference of 30 inches or more, measured four and one-half feet from ground level; or
  C. A stand of trees, the nature of which makes each dependent upon the others for survival; or
  D. Any other tree as may be deemed historically or culturally significant by the community development director or designee because of size, condition, location, or aesthetic qualities.

The analysis of potential tree impacts in this report considers the requirements outlined in the appropriate sections of the City of Highland Municipal Code (Chapter 8.36 – Heritage Trees, Chapter 16.64.040 – Heritage tree preservation requirements). The proposed project would involve removal of protected trees and would result in encroachment into the protected zone (2 feet of the tree's drip line) of trees to facilitate site development. Section 4 of this report recommends mitigation measures for anticipated tree removal to mitigate impacts from construction encroachment into the protected zone of regulated trees that would result from the proposed project. The provided measures are consistent with the provisions of the City of Highland Municipal Code.

1.1 Summary

The field survey recorded 11 trees within the survey area, 8 of which are subject to regulation under the City of Highland Municipal Code. Trees identified within the survey area are comprised entirely of ornamental tree species that are not native to the region. The inventoried tree locations are depicted in Appendix A. The proposed project tree impacts are depicted in Appendix B.

Based on an evaluation of the most current 5th and Central Warehouse site plan (dated March 2023), the project disturbance area will impact a majority of the site. Construction of the proposed project is expected to require removal of up to 8 protected heritage trees.

The City's Heritage tree preservation requirements call for a replacement tree at a ratio of two to one with size and species to be determined by the community development director. The tree replacement recommendations contained herein are based on the standards set forth in the City's Heritage tree preservation requirements. Section 4 of this report provides construction-related tree protection recommendations, and recommendations for long-term maintenance and care for regulated trees that will be retained on site.

Per the City's Heritage tree preservation requirements, Dudek recommends planting 16 drought tolerant trees to mitigate for the anticipated removal of 8 heritage trees. However, based on a review of the site plans, the site can accommodate up to 33 trees. Species composition and size of the planted trees is at the discretion of the community development director. However, based on a review of the site's landscape plan, Dudek recommends the following tree species; blue palo verde (*Cer*cidium 'Desert museum'), desert willow (*Chilopsis linearis*), chitalpa (*Chitalpa tashkentensis*), Afghan pine (*Pinus elderica*), and African sumac (*Rhus lancea*).

1.2 Assignment

Dudek's International Society of Arboriculture (ISA) Certified Arborists performed the following tasks:

- Assessed and inventoried all trees with protected zones within the survey area (based on project site plan) and documented species, general health, general structural condition, size, appearance, and presence of pests.
- Mapped the location of all trees on surveyed site base data and used GPS technology, as necessary, to develop a tree location exhibit and for planning reference.
- Prepared a tree information matrix that details the attributes of each tree and identifies the species and protection status.
- Evaluated tree impacts based on the project site plans (dated March 2023).
- Prepared this report to document the results of field surveys and impact analyses and provide recommendations for tree protection and impact mitigation measures in accordance with the provisions of the City of Highland Municipal Code and Heritage tree preservation requirements.

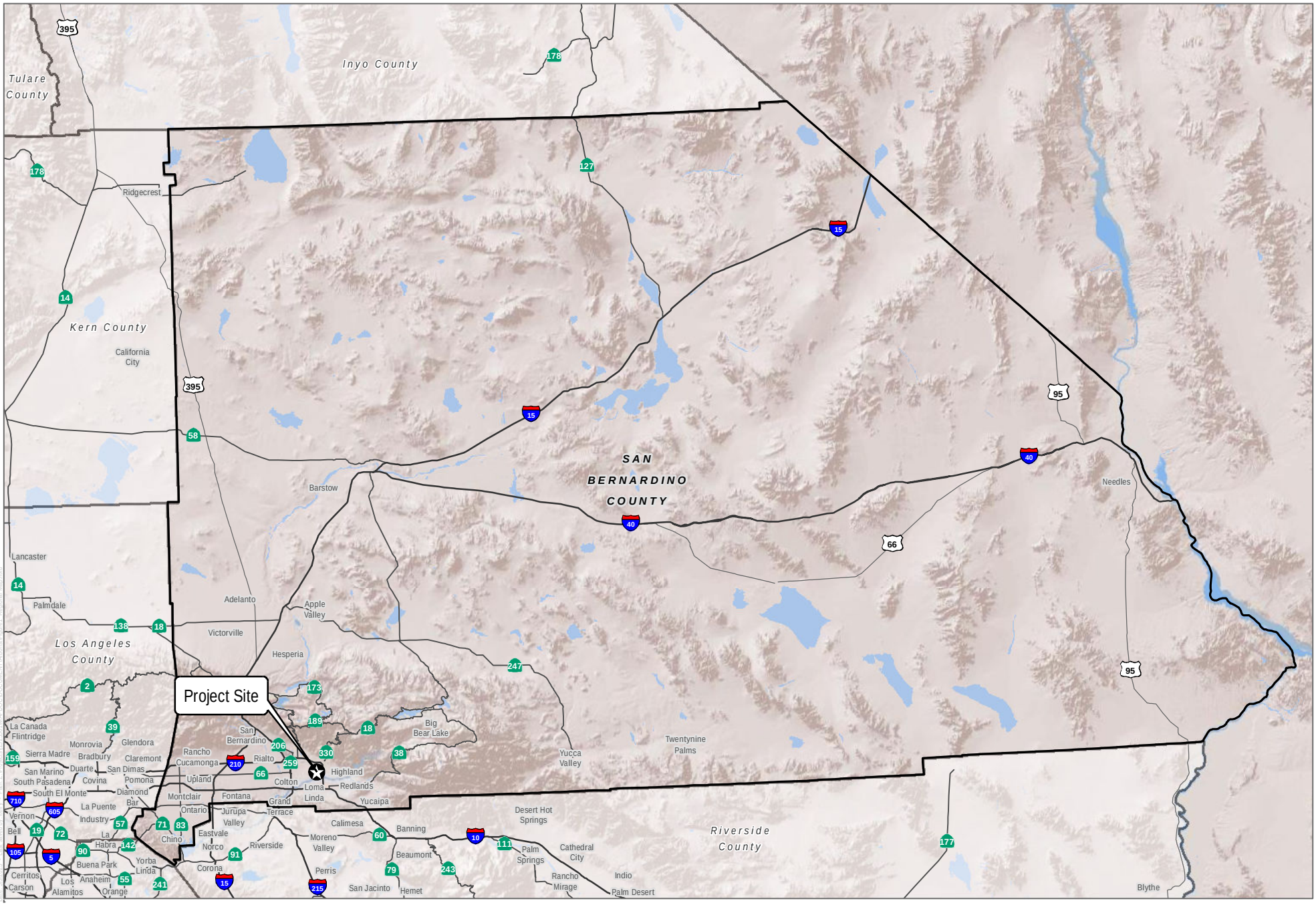
1.3 Project Description

The project includes construction of a single industrial/warehouse building equaling approximately 46,760 square feet (inclusive of 3,500 square feet of office/mezzanine). Associated improvements include loading docks, truck and vehicle parking, and landscape areas. The Project would involve the redevelopment of three legal parcels (APNS 1192-561-04; 1192-561-05; and 1192-561-06) and the demolition of the existing single-family residence constructed in 1964 (subject property).

1.4 Location/Setting

The Project site (APNS 1192-561-04; 1192-561-05; and 1192-561-06) located in Highland, California has one built environment single-family residence at 26811 5th Street (APN 1192-561-04) constructed in 1964 (Figure 1). The Project site is located at the northeast corner of 5th Street and Central Avenue. The subject property located at the approximate center of the Project site, on the south side of West 5th Street. The Project site is bounded by West 5th Street to the north, Central Avenue to the east, and East 3rd Street to the south. It is located in a mixed-use area, with primarily industrial and commercial uses located to the east, south, and west and primarily residential development located to the north. The lot immediately adjacent to the Project site to the west is currently undeveloped. The Project site is located 0.50-mile northeast from the San Bernardino International Airport.

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SOURCE: ESRI 2020

DUDEK

0 500 1,000 Feet

FIGURE 1

Regional Map

Arborist Report for the 5th Street and Central Warehouse Project

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SOURCE: BING MAPPING SERVICE 2022

DUDEK

0 100 200 Feet

FIGURE 2

Vicinity Map

Arborist Report for the 5th Street and Central Warehouse Project

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SOURCE: BING MAPPING SERVICE 2022

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0 30 60 Feet

FIGURE 3

Site Plan

Arborist Report for the 5th Street and Central Warehouse Project

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2 Methods

The following sections describe the methods used by Dudek's ISA Certified Arborists to inventory and evaluate trees in the tree survey area.

2.1 Field Tree Inventory and Evaluation

Dudek's ISA Certified Arborist Aida Castro (#WE-13396A) conducted the following tree inventory and evaluation:

- May 1, 2023 – Tree inventory and evaluation to document tree locations and attribute information for all trees within the survey area.

The arborists examined trees that would be disturbed by the proposed development and mapped protection zones. Tree attribute data collected during the field survey included species, trunk diameter and circumference, tree height, canopy spread, general health condition, structural condition, and presences of observable pests or other tree maladies. Trunk diameters were measured using a diameter tape, which provides adjusted numbers for diameter measurements when wrapping the tape around the circumference of a tree trunk. Diameter measurements were collected using standard protocol described by the Council of Tree and Landscape Appraisers in its Guide for Plant Appraisal (ISA 2000), published by the ISA, and in accordance with guidance given in the City's Municipal Code.

Trunk diameter and circumference measurements were taken at 4.5 feet above the ground along the trunk axis, with a few common exceptions. In cases where the trunk of a tree split into multiple stems at approximately 4.5 feet above the ground, the measurement was made at the location that best represented the trunk's diameter. Tree height measurements were estimated by the arborist, and tree canopy radius measurements were documented by "pacing-off" the measurement based on the arborist's knowledge of their stride length or visually estimating the canopy width.

Pursuant to the Guide for Plant Appraisal (ISA 2000), tree health and structure were evaluated with respect to five distinct tree components: roots, trunk, scaffold branches, small branches, and foliage. Health and structure were graded as *good*, *good/fair*, *fair*, *fair/poor*, or *poor*. Good condition trees exhibit acceptable vigor, healthy foliage, minor if any structural issues, and no apparent maladies. Fair condition trees are typical, with few maladies, moderate structural issues, and may exhibit less vigor in foliage and new growth. Trees assigned a poor condition rating exhibit significant health or structural problems or damage.

The location of each individual regulated tree was mapped using a Trimble Pathfinder Pro XH GPS receiver. The Pathfinder has a horizontal accuracy of 1-meter (1-sigma) using differential code positioning techniques. Because tree canopies can sometimes cause loss of satellite lock by blocking the line-of-sight to satellites, an electronic compass and reflectorless electronic distance measuring (EDM) device was also used in mapping tree locations. The EDM/compass combination operates in concert with the Pathfinder system to position offsets, and offset information is automatically attached to the GPS position data string. Dudek used the data collected to create a primary tree inventory data set, inclusive of all regulated trees, within the tree survey area. It should be noted, that due to the location of several trees on steep slopes, the location and recorded tree information was based on aerial imagery and ocular estimations.

Individual tree locations are presented in Appendix A, Tree Location Exhibit, and individual tree attribute data and impact determination is presented in Appendices B, Tree Impact Exhibit, and Appendix C, Tree Information Matrix.

2.2 Tree Impact Analysis

Following data collection, processing, and analysis efforts, an impact determination was made for each tree based on proximity to the proposed disturbance area. Impact determinations used in this report are as follows:

- Not Impacted (tree not affected by project)
- Removal (tree to be removed)
- Encroachment (project disturbance would occur within the protected zone of the tree)

A summary of project-related tree impacts is presented in Section 3.2, Project-Related Impacts, and impact determination status for each tree recorded in the tree survey area is provided in Appendix C.

2.3 Scope of Work Limitations

This report presents tree information as observed in the field. No root crown excavations or investigations, internal probing, or aerial canopy inspections were performed during the tree assessment. Therefore, the presence or absence of internal decay or other hidden or inaccessible inferiorities in individual trees could not be confirmed.

3 Findings/Results

3.1 Inventory Summary

Dudek's arborist recorded 11 trees with protected zones within the proposed project site. With the exception of one undersized single, and two undersized multi-stemmed trees, all of the trees meet the criteria for regulation under the City's Municipal Code as heritage trees. Table 1 provides a summary of the species mapped within the tree survey area.

Table 1. Summary of Existing Trees

Scientific Name	Common Name	Tree Quantities
Plantanus racemose	California sycamore	1
Cinnamomum camphora	Camphor	1
Ulmus parvifolia	Chinese elm	5
Celtis sinensis	Chinese hackberry	2
Washingtonia robusta	Mexican fan palm	2
	Total	**11**

As presented in Appendix D, 5 (45.5%) of the trees exhibit good (Rating B) health and 6 (54.5%) of the trees exhibit fair (Rating C) health. One (9.1%) tree has good (Rating B) structure, 9 (81.8%) trees exhibit fair (Rating C) structure, and 1 (9.1%) tree has poor (Rating D) structure.

Trees in the tree survey area vary in size and stature according to species. Circumference trees range from 22 inches to 90 inches. Tree heights vary from 20- to 50- feet. Tree canopy extents range from eight feet to 25 feet at their widest location. Individual attributes of each tree are presented in Appendix C, Tree Information Matrix.

3.2 Project-Related Impacts

There is wide variation in tolerance to construction impacts among tree species, and the response of an individual tree to impacts also varies with age and condition. Impacts assessed for this project include trees with protected zones within the proposed improvement and disturbance areas as defined in the project site plan (dated March 2023). The impact discussion in this section identifies all impacts anticipated to result to regulated trees based on an evaluation of tree locations compared with the project site plan. Much of the survey area will be graded to accommodate construction of the project and necessary infrastructure (e.g., utilities, access roads, fire lanes). Trees identified for retention and removal are graphically presented in the Tree Impact Exhibit (Appendix B).

Based on grading and development plans for the proposed project, it is estimated that all 11 trees will be removed.

Table 2 summarizes impact determinations for heritage trees within the tree survey area that are subject to regulation under the City of Highland Municipal Code.

Table 2. Summary of Protected Tree Impact Determinations

Species	Impact Determination		Total
	Removal	No Impact	
California sycamore	1	0	1
Camphor	0	1	1
Chinese elm	3	2	5
Chinese hackberry	2	0	2
Mexican fan palm	2	0	2
Total Trees	**11**	**3**	**11**

4 Mitigation and Management Recommendations

4.1 Mitigation Recommendations

Removals

The City's Municipal Code mitigation requirements for Heritage tree removals associated with development projects are summarized as follows (Section 16.64.040 – Heritage tree preservation requirements):

- Any heritage tree removal subject to a tree removal permit shall require replacement at a ratio of two to one with size and species to be determined by the community development director.

The proposed site plan would require removal of 8 protected Heritage trees. Per the City's Heritage tree preservation requirements, Dudek recommends planting 16 drought tolerant trees to mitigate for the anticipated removal of 8 heritage trees. Based on a review of the site plans, the site can accommodate up to 33 trees, resulting in a replacement ratio of 4.1:1 for heritage trees. Species composition and size of the planted trees is at the discretion of the community development director. However, based on a review of the site's landscape plan, Dudek recommends the following tree species; blue palo verde (*Cer*cidium 'Desert museum'), desert willow (*Chilopsis linearis*), chitalpa (*Chitalpa tashkentensis*), Afghan pine (*Pinus elderica*), and African sumac (*Rhus lancea*). A copy of the Landscape Plan can be found in Appendix E, Landscape Plan.

Encroachment into Protected Zone and Retained Trees

A long-term maintenance program is required by the City's Municipal Code to mitigate for encroachments into the protected zone of regulated trees that would occur with the proposed project and to maintain the health of the trees retained on the project site. However, as previously noted, all 11 trees on-site require removal to accommodate the proposed project. As such, the tree protection recommendations provided in Appendix D are recommended for implementation should trees be preserved. Specifically, Appendix D includes measures to implement prior to, during, and following construction. This includes measures such as exclusion fencing and worker training to avoid direct impacts to trees, and measures such as irrigation and monthly inspections by an arborist to promote the long-term health of retained trees. Arborist monitoring during construction when encroachments into tree protection zones would occur is also recommend minimizing root disturbance and determine the best course of actions for root pruning, supplemental irrigation, branch trimming, or other measures that would minimize impacts from ground-disturbing and other potential impactful activities.

4.2 Tree Permits

The project applicant will need to submit a Tree Removal Application to the City. A copy of this report and the final project site plan should accompany the application. A Tree Permit is required for removal, pruning, or soil disturbance within the protected zone of a regulated tree.

5 Disclosure

This arborist report provides conclusions and recommendations based only on a visual examination of the trees within the tree survey area by ISA Certified Arborists and reasonable reliance on the completeness and accuracy of the information provided to the arborists. The examination did not include subterranean or internal examination of the trees.

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near them. Although trees provide many benefits to those who live near them, they also include inherent risks from breakage or failure that can be minimized but not eliminated.

Arborists cannot detect every condition that could lead to the failure of a tree. Trees are living organisms subject to attack by disease, insects, fungi, weather, and other forces of nature, and conditions that lead to failure are often hidden within trees and belowground. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Arborists cannot predict acts of nature, including, without limitation, storms of sufficient strength, which can cause a healthy tree to fail. Additionally, arborists cannot guarantee that a tree will be healthy or safe under all circumstances or for any specific period of time. A tree's condition could change over a short or extended period of time due to climatic, cultural, or environmental conditions. Further, there is no guarantee or certainty that recommendations or efforts to correct unsafe conditions will prevent future breakage or failure of a tree.

To live or work near trees is to accept some degree of risk. Neither the author of this arborist report nor Dudek assume any responsibility for or will be liable for any claims, losses, or damages for damage to any tree, death or injury to any person, or any loss of or damage to any personal or real property.

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6 References

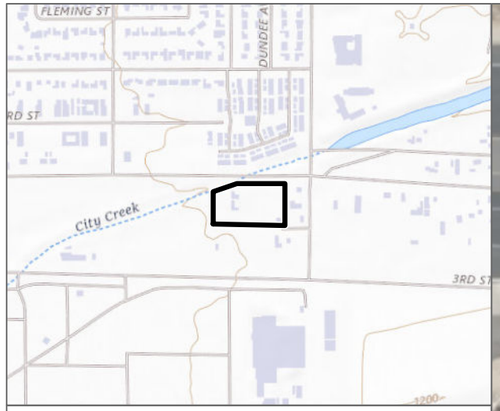
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Appendix A

Tree Location Exhibit



Project Boundary

Species

- *Celtis sinensis*, Chinese Hackberry
- *Cinnamomum camphora*, Camphor
- *Platanus racemosa*, California Sycamore
- *Ulmus parvifolia*, Chinese Elm
- *Washingtonia robusta*, Mexican Fan Palm

SOURCE: AERIAL- BING MAPPING SERVICE 2022

DUDEK

0 25 50 Feet

APPENDIX A

Tree Locations

Arborist Report for the 5th Street and Central Warehouse Project

Appendix B
Tree Impact Exhibit



Project Boundary

Disposition

- Direct

SOURCE: AERIAL- BING MAPPING SERVICE 2022

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0 25 50 Feet

APPENDIX B

Tree Impacts

Arborist Report for the 5th Street and Central Warehouse Project

Appendix C
Tree Information Matrix

Tree Information Matrix																	
Tree No.	Botanical Name	Common Name	Stems	Individual Stem Diameter (in.)				Diameter (in.)	Circumference (in.)	Height (ft.)	Crown Width (ft.)	Health	Structural Integrity	Heritage	Impacts	Latitude	Longitude
				D1	D2	D3	D4										
1	*Celtis sinensis*	Chinese Hackberry	4	9	12	10	10	21	65	25	25	Good	Fair	Yes	Removal	34.10810202	-117.2190238
2	*Washingtonia robusta*	Mexican Fan Palm	1	15	-	-	-	15	47	45	10	Good	Fair	Yes	Removal	34.10791172	-117.2189651
3	*Ulmus parvifolia*	Chinese Elm	1	10	-	-	-	10	31	25	20	Fair	Fair	Yes	Removal	34.10793067	-117.2190435
4	*Cinnamomum camphora*	Camphor	1	7	-	-	-	7	22	20	15	Good	Good	No	Removal	34.10774218	-117.2183294
5	*Ulmus parvifolia*	Chinese Elm	3	6	4	4	-	8	26	25	20	Fair	Fair	No	Removal	34.10800025	-117.2193989
6	*Washingtonia robusta*	Mexican Fan Palm	1	15	-	-	-	15	47	20	8	Good	Fair	Yes	Removal	34.10793251	-117.2195209
7	*Ulmus parvifolia*	Chinese Elm	1	11	-	-	-	11	35	35	20	Fair	Fair	Yes	Removal	34.10812756	-117.2193651
8	*Ulmus parvifolia*	Chinese Elm	1	10	-	-	-	10	31	25	20	Fair	Fair	Yes	Removal	34.10803834	-117.2189905
9	*Platanus racemosa*	California Sycamore	2	27	10	-	-	29	90	50	25	Fair	Poor	Yes	Removal	34.10803799	-117.219565
10	*Celtis sinensis*	Chinese Hackberry	2	10	12	-	-	16	49	25	25	Good	Fair	Yes	Removal	34.10798902	-117.2195928
11	*Ulmus parvifolia*	Chinese Elm	3	6	4	4	-	8	26	25	20	Fair	Fair	No	Removal	34.10795412	-117.2193891

Appendix D
Tree Protection Measures

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Tree Protection Measures

The following tree protection measures are provided as general guidelines for tree protection from construction impacts. The measures presented should be monitored by arborists and enforced by contractors and developers for maximum benefit to the trees.

Tree Protection Measures Prior to Construction

Prior to any construction activity (drainage, demolition, material removal or delivery), oak and landmark trees with canopies that fall within 30 feet of construction activity shall be protected by fencing and signage. All contractors shall be made aware of the tree protection measures. A project arborist shall be assigned to monitor tree health and construction activity near retained trees on site. The project arborist shall be an International Society of Arboriculture (ISA) Certified Arborist.

Fencing. A 6-foot high, chain link fence with tree protection signs shall be erected around all trees (or tree groups) with canopies that fall within 30 feet of construction activity. The protective fence should be installed at a distance from the trunk that is equal to the dripline radius plus 5 feet (protected tree zone). For any trees that would be encroached upon by construction activities, fencing shall be placed as far away from trunk of the tree as possible while still allowing the required construction activities to proceed. This fencing will delineate the tree protection zone and prevent unwanted activity in and around the trees in order to reduce soil compaction in the root zones of the trees and other damage from heavy equipment. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. In areas where fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base. Tree protection signs should be attached to every fourth post. The contractor shall maintain the fence to keep it upright, taut, and aligned at all times. Fencing shall be removed only after all construction activities are complete.

Pre-Construction Meeting. A pre-construction meeting shall be held between all contractors and the arborist. The arborist will instruct the contractors on tree protection practices and answer any questions. All equipment operators and spotters, assistants, or those directing operators from the ground, shall provide written acknowledgement of their receiving tree protection training. This training shall include information on the location and marking of protected trees, the necessity of preventing damage, and the discussion of work practices that will accomplish such.

Protection and Maintenance During Construction

Once construction activities have begun, the following measures shall be adhered to:

Avoidance: Signs, ropes, cables, or any other items shall not be attached to any tree.

Equipment Operation and Storage. Operating heavy machinery around the root zones of trees will increase soil compaction, which decreases soil aeration and subsequently reduces water penetration in the soil. All heavy equipment and vehicles shall stay out of the fenced tree protection zone, unless where specifically approved in writing by the City Arborist and under the supervision of an ISA Certified Arborist

Storage and Disposal. Do not store or discard any supply or material, including paint, lumber, concrete overflow, etc. within the fenced tree protection zone. Remove all foreign debris within the fenced tree protection zone; it is important

to leave the duff, mulch, chips, and leaves around the retained trees for water retention and nutrients. Avoid draining or leakage of equipment fluids near retained trees. Fluids such as: gasoline, diesel, oils, hydraulics, brake and transmission fluids, paint, paint thinners, and glycol (anti-freeze) should be disposed of properly. Keep equipment parked outside of the fenced tree protection zone of retained trees to avoid the possibility of leakage of equipment fluids into the soil. The effect of toxic equipment fluids on the retained trees could lead to decline and death.

Moving Construction Materials. Moving Construction Materials: Care will be taken when moving equipment or supplies near the trees, especially overhead. Avoid damaging the tree(s) when transporting or moving construction materials and working around retained trees (even outside of the fenced tree protection zone). Above ground tree parts that could be damaged (e.g., low limbs, trunks) should be flagged with red ribbon. If contact with the tree crown is unavoidable, prune the conflicting branch(es) using ISA or ANSI A300 standards.

Grade Changes. Grade changes, including adding fill, are not permitted within the tree protection zone, without special written authorization and under supervision by a Certified Arborist. Lowering the grade within this area will necessitate cutting main support and feeder roots, jeopardizing the health and structural integrity of the tree(s). Adding soil, even temporarily, on top of the existing grade will compact the soil further, and decrease both water and air availability to the trees' roots.

Root Pruning. Except where specifically approved in writing, all trenching shall be outside of the fenced tree protection zone. Roots primarily extend in a horizontal direction, forming a support base to the tree similar to the base of a wineglass. Where trenching is necessary in areas that contain tree roots, prune the roots using a Dosko root pruner or equivalent. All cuts shall be clean and sharp, to minimize ripping, tearing, and fracturing the root system. The trench shall be made no deeper than necessary.

Trenching. Unless a Tree Permit has been issued for trenching activity within the fenced tree protection zone, all trenching shall be outside of the fenced tree protection zone. Roots primarily extend in a horizontal direction forming a support base to the tree similar to the base of a wineglass. Where trenching is necessary in areas that contain tree roots, prune the roots using a Dosko root pruner or equivalent. All cuts should be clean and sharp, to minimize ripping, tearing, and fracturing of the root system. The trench should be made no deeper than necessary

Irrigation. Trees that have been substantially root pruned (30% or more of their root zone) will require irrigation for the first twelve months. The first irrigation should be within 48 hours of root pruning. They should be deep watered every two to four weeks during the summer and once a month during the winter (adjust accordingly with rainfall). One irrigation cycle should thoroughly soak the root zones of the trees to a depth of 3 feet. The soil should dry out between watering; avoid keeping a consistently wet soil. Designate one person to be responsible for irrigating (deep watering) the trees. Check soil moisture with a soil probe before irrigating. Irrigation is best accomplished by installing a temporary above ground micro-spray system that will distribute water slowly (to avoid runoff) and evenly throughout the fenced tree protection zone ***but never soaking the area located within 6- feet of the tree trunk***.

Pruning. Do not prune any of the trees until all construction is completed. This will help protect the tree canopies from damage. All pruning shall be completed under the direction of an ISA Certified Arborist and using ISA guidelines. Only dead wood shall be removed from tree canopies.

Washing. Periodic washing of the foliage is recommended during construction but no more than once every two weeks. Washing should include the upper and lower leaf surfaces and the tree bark. This should continue beyond the

construction period at a less frequent rate with a high-powered hose only in the early morning hours. Washing will help control dirt/dust buildup that can lead to mite and insect infestations.

Inspection. An ISA Certified Arborist shall inspect the trees on at least a monthly basis for the duration of construction activity. A summary report documenting observations and management recommendations shall be submitted to the owner following each inspection. Photographs of representative trees are to be included in each report.

Maintenance After Construction

Once construction is complete the tree protection fencing may be removed and the following measures performed to sustain and enhance the vigor of the preserved trees.

Mulch. Provide a 4-inch mulch layer of mulch under the canopy of trees. Mulch shall be clean and organic and provide long-term soil conditioning, soil moisture retention, and soil temperature control.

Pruning. Pruning should only be done to maintain clearance and remove broken, dead or diseased branches. Pruning shall only take place following a recommendation by an ISA Certified Arborist and performed under the supervision of an ISA Certified Arborist. No more than 15% of the canopy shall be removed at any one time. All pruning shall conform to ISA or ANSI A300 standards.

Watering. Retained trees on site shall be watered as they were prior to the commencement of construction activity. Supplemental irrigation may be necessary for twelve months following substantial root pruning.

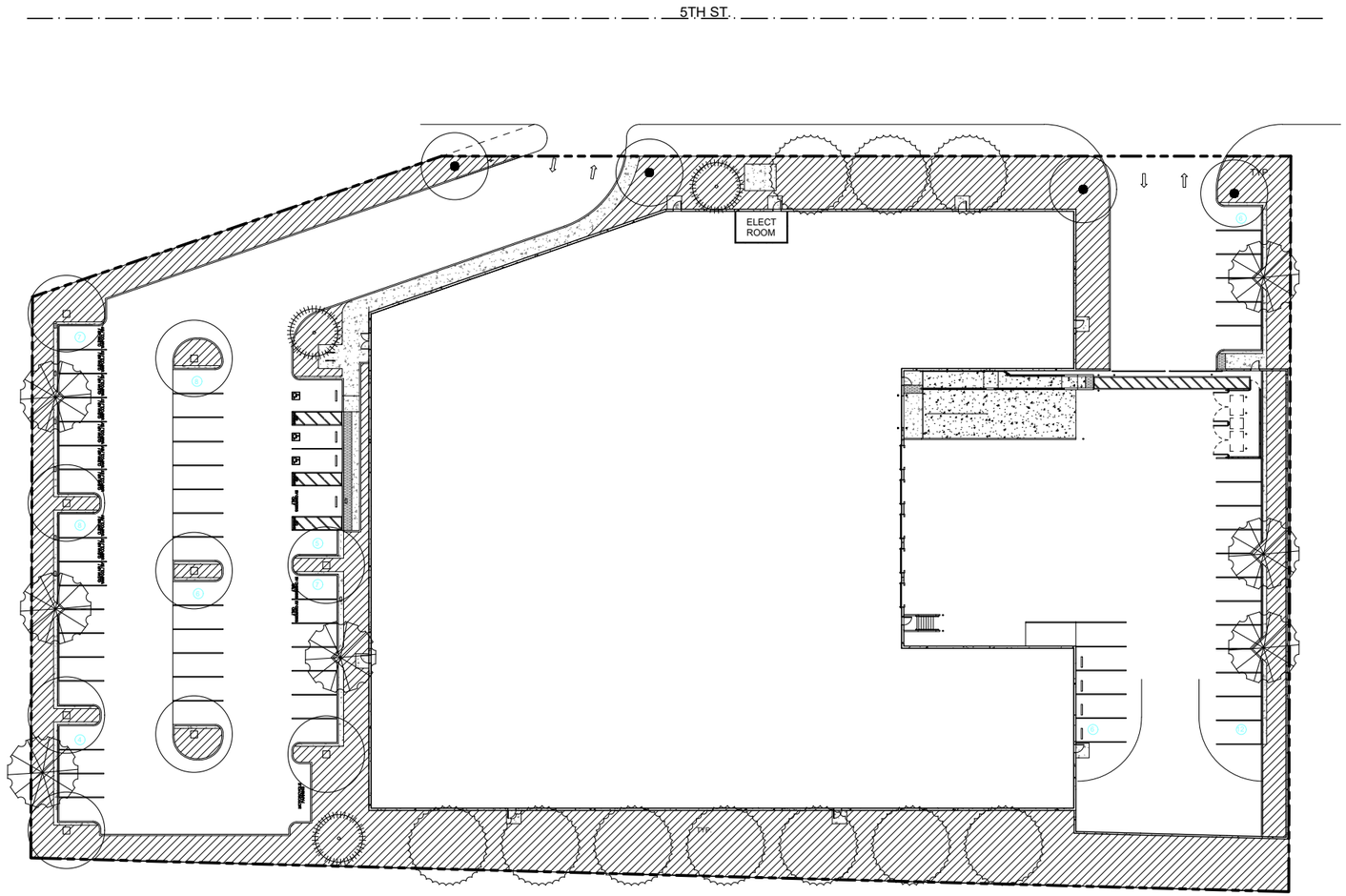
Watering Adjacent Plant Material. All plants near the trees shall be compatible with water requirements of said trees. Watering regime included in the site's landscape plan shall be developed with consideration for the water needs of retained trees.

Spraying. If the trees are maintained in a healthy state, regular spraying for insect or disease control should not be necessary. If a problem does develop, an ISA Certified Arborist should be consulted; the trees may require application of insecticides to prevent the intrusion of bark-boring beetles and other invading pests. All chemical spraying should be performed by a licensed applicator under the direction of a licensed pest control advisor.

Inspection. All trees within 30 feet of construction activity shall be monitored by an ISA Certified Arborist for the first two years after construction completion. An annual monitoring report shall be submitted to the City Arborist. Each report shall summarize the inspection efforts, document observations and management actions taken, include photographs of each tree, and compare postconstruction tree conditions with the original, pre-construction baseline condition. If any retained trees die within this inspection period, they shall be replaced at a ratio approved by the City.

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Appendix E
Landscape Plan



PLANTING LEGEND

TREES

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	Cercidium 'Desert Museum' Blue Palo Verde	36" Box	4	L	Multi
	Chilopsis linearis Desert Willow	24" Box	3	L	Multi
	Chitalpa tashkentensis Chitalpa	24" Box	7	L	Standard
	Pinus eldarica Afghan Pine	24" Box	10	L	Standard
	Rhus lancea African Sumac	24" Box	9	L	Standard

SHRUBS

SYMBOL	BOTANICAL/COMMON NAME	SIZE		WUCOLS	SPACING
	Acca sellowiana Pineapple Guava	5 Gal	52	L	3' OC 2' from hardscape
	Aloe striata Coral Aloe	1 Gal		L	
	Callistemon 'Little John' Dwarf Bottle Brush	5 Gal		L	3' OC 2' from hardscape
	Cassia phyllodenia Silverleaf Cassia	5 Gal		L	2.5' O.C. 2' from hardscape
	Dietes bicolor Fortnight Lily	5 Gal		M	3' OC 2' from hardscape
	Ligustrum j. Texanum Texas Privet	5 Gal		M	3' OC 2' from hardscape
	Salvia c. 'Allen Chickering' Allen Chickering Sage	5 Gal		L	4' O.C. 2.5' from hardscape
	Salvia greggii Autumn Sage	5 Gal		L	3' OC 2' from hardscape
	Salvia leucantha Mexican Sage	5 Gal		L	3' OC 2' from hardscape
	Westringia f. 'Grey Box Dwarf Coast Rosemary	5 Gal		L	3' OC 2' from hardscape

GROUNDCOVER

SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS	REMARKS
	Lantana 'Gold Mound' Yellow Lantana	1 Gal	36" O.C.	L	
	Lonicera j. 'Halliana' Hall's Honeysuckle	1 Gal	48" O.C.	L	
	Muhlenbergia capillaris Pink Muhly	1 Gal	36" O.C.	M	Grass
	Myoporum parvifolium Myoporum	1 Gal	36" O.C.	L	
	Rosmarinus 'HuntingtonCarpet' Prostrate Rosemary	1 Gal	48" O.C.	L	

N

0 10' 20' 40'

5th and Central

22-000
03.22.23

Patriot Partners

Highland, California

HUNTER LANDSCAPE
711 FEE ANA STREET PLACENTIA, CA 92870
714.986.2400 FAX 714.986.2408

Appendix D

Built Environment Inventory and Evaluation Report

Built Environment Inventory and Evaluation Report

5th and Central Warehouse Project, City of Highland, California

MAY 2023

Prepared for:

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Printed on 30% post-consumer recycled material.

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Executive Summary

Dudek was retained by the Patriot Development Partners to prepare a Built Environment Inventory and Evaluation Report for the proposed 5th and Central Warehouse Project in the City of Highland, California (proposed Project). The Project site consist of three contagious adjacent parcels: 26811 5th Street (APN 1192-561-04), No Situs (APN 1192-561-05), and No Situs (APN 1192-561-06) (Project site). The Project proposes the demolition of all existing built environment resources on the Project site to construct a single industrial/warehouse building encompassing approximately 46,760 square feet (inclusive of 3,500 square feet of office/mezzanine). Associated improvements include loading docks, truck and vehicle parking, and landscape areas. The purpose of this report is to determine if the Project would impact any historical resources pursuant to the California Environmental Quality Act (CEQA).

As the existing building proposed for demolition is over 45 years of age, Dudek prepared this report to record and evaluate the building for historical significance in consideration of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), and City of Highland designation and integrity criteria. This report includes the results of a California Historical Resources Information System (CHRIS) records search; an intensive-level survey of the proposed Project site and its vicinity; building development and archival research; development of an appropriate historic context for the Project site; and recordation and evaluation of one built environment resource over 45 years old for historical significance. This report was prepared in accordance with Section 15064.5 of the CEQA Guidelines.

The Project study area for built environment resources contains one parcel with a single-family residence and detached garage that are 45 years of age or older located at 26811 5th Street (APN 1192-561-04; subject property). The subject property was constructed in 1964 and is over 45-years of age and was evaluated for historical and architectural significance in this report. The subject property is not currently listed under any national, state, or local landmark or historic district programs. Table 1 below outlines these findings.

Table 1. Identified Built Environment Properties Within the Project Site

Address	APN	Year Built	Evaluated	Property Type
26811 5th Street	1192-561-04	1964	Yes	Single-family residence and detached garage
No Situs	1192-561-05	Not applicable	No	Vacant
No Situs	1192-561-06	Not applicable	No	Vacant

As a result of Dudek's extensive archival research, field survey, record search, and property significance evaluations, no built environment historical resources were identified within the Project site, nor were any adjacent historical resources identified that could be impacted by the proposed Project activities. The subject property is recommended ineligible for the NRHP and CRHR due to a lack of significant historical associations and architectural merit. The recommended status code is 6Z: Found ineligible for NR, CR or Local designation through survey evaluation. Therefore, the subject property is not considered historical resources for the purposes of CEQA. The finding for built environment cultural resources for the proposed Project under CEQA is **No Impact.** Because the proposed Project would have no impact on historical resources, no further study is required.

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1 Introduction

This chapter provides a description of the proposed Project, including information about the location, setting, and proposed Project activities. This chapter also presents the regulatory setting, a description of the delineated study area for built environment resources, and Dudek personnel involved in the preparation of this report.

1.1 Project Location and Description

Project Location

The Project site (APNS 1192-561-04; 1192-561-05; and 1192-561-06) located in Highland, California has one built environment single-family residence located at 26811 5th Street (APN 1192-561-04) constructed in 1964 (Figure 1). The Project site is located at the southwest corner of 5th Street and Central Avenue. The subject property is located near the center of the Project site, on the south side of West 5th Street. The Project site is bounded by West 5th Street to the north, Central Avenue to the east, and East 3rd Street to the south. It is located in a mixed-use area, with primarily industrial and commercial uses to the east, south, and west and primarily residential development to the north. The lot immediately adjacent to the Project site to the west is currently undeveloped. The Project site is located 0.50-mile northeast from the San Bernardino International Airport.

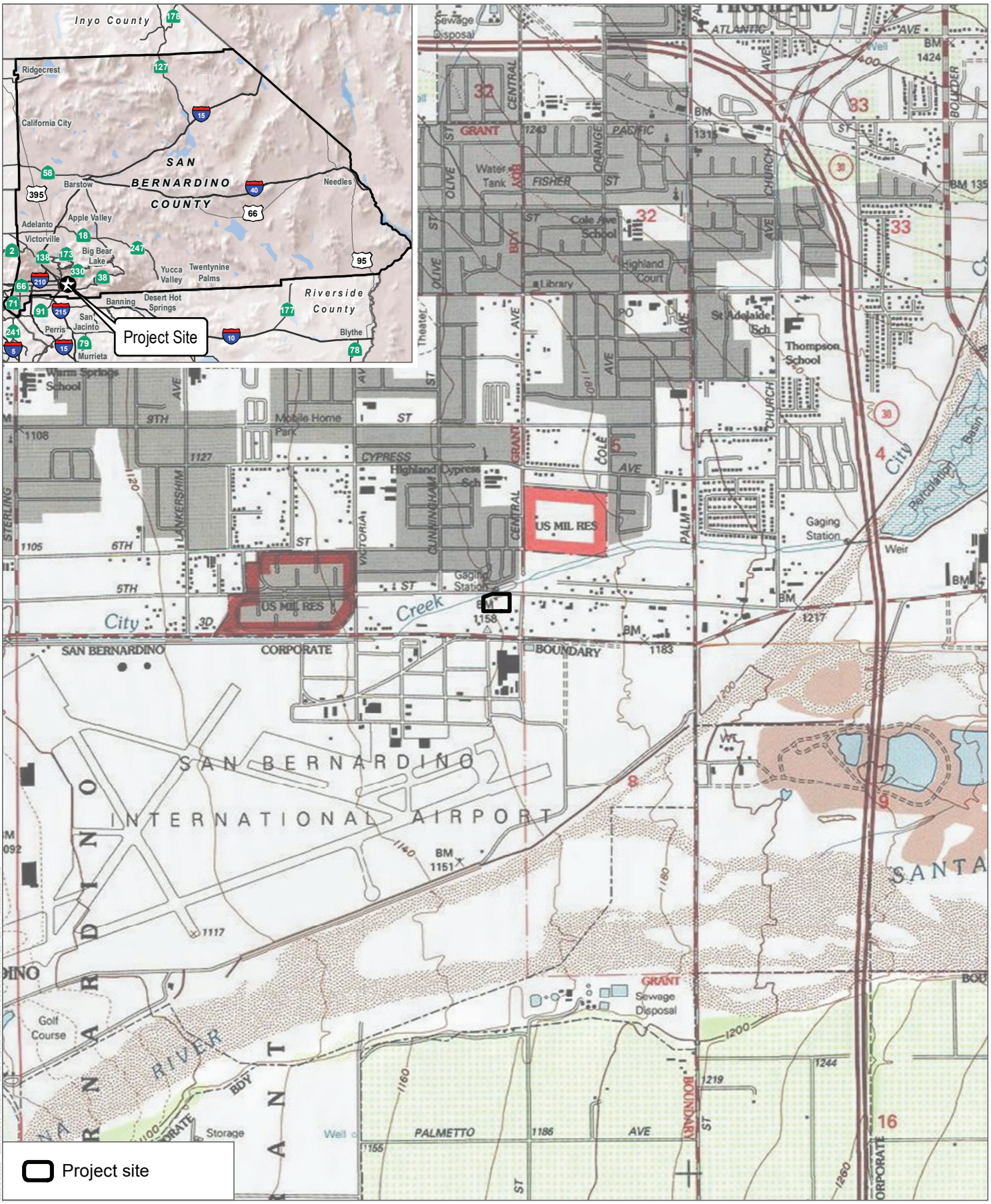
Project Description

The proposed Project would be located at the southwest corner of 5th Street and Central Avenue and includes construction of a single industrial/warehouse building encompassing approximately 46,760 square feet (inclusive of 3,500 square feet of office/ mezzanine). Associated improvements include loading docks, truck and vehicle parking, and landscape areas. The Project would involve the redevelopment of three legal parcels (APNS 1192-561-04; 1192-561-05; and 1192-561-06) and the demolition of the existing single-family residence constructed in 1964 (subject property).

1.2 Project Personnel

Dudek Architectural Historian Claire Cancilla, MSHP prepared this report and associated property significance evaluation. Cultural Resources Specialist Linda Kry, BA conducted the fieldwork on May 18, 2023. This report was reviewed for quality assurance/quality control by Dudek Senior Architectural Historian Monte Kim, PhD. Resumes for all personnel are provided in Appendix A.

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SOURCE: USGS 7.5-Minute Series Redlands Quadrangle
Township 1S; Range 3W; Sections 5.

DUDEK

0 1,000 2,000 Feet
0 285 570 Meters
1:24,000

FIGURE 1

Project Location

5th Street and Central Avenue Warehouse Project

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SOURCE: Bing Maps Aerial, San Bernardino County 2023, Township 1S; Range 3W; Sections 5.

DUDEK

0 40 80 Feet

FIGURE 2

Project Site

5th Street and Central Avenue Warehouse Project

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1.3 Regulatory Setting

Federal

National Register of Historic Places

The NRHP is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service, under the U.S. Department of the Interior, the NRHP was authorized under the National Historic Preservation Act, as amended. Its listings encompass all National Historic Landmarks, as well as historic areas administered by the National Park Service.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the NRHP.[1] For a property to be listed in or determined eligible for listing, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects with integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That have yielded, or may be likely to yield, information important in prehistory or history.

In addition to significance, a resource must also possess integrity. Integrity is defined in the NRHP Bulletin, "How to Apply the National Register Criteria," as "the ability of a property to convey its significance (NPS 1997: 44). The integrity evaluation is grounded in understanding a property's physical features and how they relate to the property's significance. Historic properties either retain integrity (that is, convey their significance), or they do not. To maintain integrity, a property will always possess several, and usually most, of the seven aspects of integrity (NPS 1997: 44-45):

a. **Location** is where the historic property was constructed or where the historic event occurred.
b. **Design** is the combination of elements that create the form, plan, space, structure, and style.
c. **Setting** is the physical environment of a historic property.

[1] The NRHP concepts of significance and integrity provide the foundation for evaluating resources for potential listing in the California Register of Historical Resources, as well as local registers of historic resources. While there are differences between the federal, state, and various local registers, there are sufficient similarities that make the preparation of evaluations under all three criteria (if all three criteria are applicable) a more efficient approach to managing resources and for planning purposes. Like many state and local agency projects, the current proposed project does not have a federal nexus and, therefore, there is no statutory or regulatory requirement for resource evaluations under NRHP criteria. However, by preparing a NRHP evaluation, the agency has an important planning tool warranting consideration in subsequent or future projects in the same area that have a federal nexus and will require the evaluation of the resource in accordance with the NRHP criteria outlined in 36 CFR § 60.4.

d. **Materials** are the physical elements combined or deposited during a particular period and in a specific pattern or configuration to form a historic property.
e. **Workmanship** is the physical evidence of crafts of a particular culture or people during any period in history or prehistory.
f. **Feeling** is the property's expression of a particular period's aesthetic or historic sense.
g. **Association** is the direct link between an important historic event or person and a historic property.

State

California Register of Historical Resources

In California, the term "historical resource" includes, but is not limited to, "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code (PRC) § 5020.1[j]). In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC § 5024.1[a]). The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP. The CRHR criteria are enumerated under PRC §§ 5024.1(c)(1–4) and require that a resource be significant under at least one of the following criteria:

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

In addition to meeting one of the significance criteria described in PRC § 5024.1(c), a resource must also possess sufficient integrity to qualify for listing in the CRHR. Integrity as defined in 14 CCR § 4852(c) is "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" as evaluated with regard to the resource's retention of location, design, setting, materials, workmanship, feeling, and association. Historical resources that lack sufficient integrity to meet the criteria for listing in the NRHP may still be eligible for listing in the CRHR if it maintains the potential to yield significant scientific, historical information, specific data, or meets one of the following special considerations for resources described under 14 CCR § 4852(d):

1 Moved buildings, structures, or objects. The State Historical Resources Commission (Commission) encourages the retention of historical resources on site and discourages the non-historic grouping of historic buildings into parks or districts. However, it is recognized that moving an historic building, structure, or object is sometimes necessary to prevent its destruction. Therefore, a moved building, structure, or object that is otherwise eligible may be listed in the California Register if it was moved to prevent its demolition at its former location and if the new location is compatible with the original character and use of the historical

resource. An historical resource should retain its historic features and compatibility in orientation, setting, and general environment.

2. Historical resources achieving significance within the past 50 years. In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years may be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance.
3. Reconstructed buildings. Reconstructed buildings are those buildings not listed in the California Register under the criteria in 14 CCR § 4852(b) or PRC § 5024.1(c)(1-4). A reconstructed building less than 50 years old may be eligible if it embodies traditional building methods and techniques that play an important role in a community's historically rooted beliefs, customs, and practices, e.g., a Native American roundhouse.

The CRHR includes not only listed prehistoric and historic cultural resources but also resources that are designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further below, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC § 21083.2(g) defines "unique archaeological resource."
- PRC § 21084.1 and14 CCR § 15064.5(a) define "historical resources." In addition, 14 CCR § 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource." It also defines the circumstances when a project would materially impair the significance of an historical resource.
- PRC § 21074(a) defines "tribal cultural resources."
- PRC § 5097.98 and 14 CCR § 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC § 21083.2(b)-(c) and 14 CCR § 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC § 21084.1; 14 CCR § 15064.5[b]). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources or identified as significant in a historical resources survey that meets the requirements of PRC § 5024.1(q), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (PRC § 21084.1; 14 CCR § 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC § 21084.1; 14 CCR § 15064.5[a]).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR § 15064.5[b][1]; PRC § 5020.1[q]). In turn, 14 CCR § 15064.5(b)(2) states that the significance of an historical resource is materially impaired when a project:

A. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
B. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to PRC § 5020.1(k) or its identification in an historical survey meeting the requirements of PRC § 5020.1(g), unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
C. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a Project area contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC § 21083.2[a-c]).

Local

City of Highland Historic and Cultural Preservation Ordinance (Chapter 16.32)

The City of Highland Cultural Resource Designation Criteria are listed under the Historic and Cultural Preservation Ordinance, adopted in 2021. This ordinance also defines the establishment and duties of a historic and cultural preservation board consisting of five uncompensated voting members appointed by the city council. The city council and City of Highland has found and determined:

A. That the character and history of the city are reflected in its cultural, historical, and architectural heritage;
B. That these historical and cultural foundations should be preserved as living parts of community life and development to build an understanding of the city's past, so that future generations may have a genuine opportunity to appreciate, enjoy, and understand the rich heritage of the city;
C. That, in the face of ever-increasing pressures of modernization and urbanization, city landmarks, neighborhoods, and other areas of historical and cultural interest are threatened with demolition;
D. That pursuant to the provisions of the National Historic Preservation Act of 1966, as amended, the city of Highland joins with private concerns, the state of California, and the United States Congress to develop preservation programs and activities to give maximum encouragement to agencies and individuals undertaking preservation of the city's unique architectural, historical, aesthetic, and cultural heritage.

E. The purpose of this chapter is to promote the public health, safety, and general welfare and:
   1. To safeguard the city's unique cultural heritage as embodied and reflected in the city's architectural history and patterns of cultural development;
   2. To encourage and facilitate public knowledge, understanding, and appreciation of the city's historic past and unique sense of place;
   3. To preserve diverse architectural styles, patterns of development, and design preferences reflecting phases of the city's history and to encourage complementary contemporary design and construction and inspire a more livable urban environment;
   4. To enhance property values and to increase economic and financial benefits to the city and its inhabitants through the exploration of creative financial incentives for preservation;
   5. To protect and enhance the city's attraction to tourists and visitors thereby stimulating business and industry;
   6. To identify as early as possible and resolve conflicts between the preservation of cultural resources and alternative land uses;
   7. To integrate the preservation of cultural resources into public and private land use management and development processes;
   8. To stabilize neighborhoods through the preservation of cultural resources and establishment of historic districts and conservation zones;
   9. To encourage public participation in identifying and preserving historical and architectural resources thereby increasing community pride in the city's cultural heritage;
   10. To acknowledge the historic preservation plan "Old Town" as a tool for preservation of the unique character of the city's Highland Historic District. (Ord. 270 § 6, 2001; Ord. 171 § 8.10, 1994)

16.32.050 Cultural resource designation criteria.

For the purposes of this chapter, an improvement, natural feature, or site may be nominated as a cultural resource by the historic and cultural preservation board pursuant to HMC 16.32.060 if it meets the criteria for listing on the National Register of Historic Places or the following:

A. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;
B. It is identified with persons or events significant in local, state, or national history;
C. It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
D. It is representative of the work of a notable builder, designer, or architect;
E. It contributes to the significance of an historic area, being a geographically definable area possessing a concentration of historic or scenic properties or thematically related grouping of properties which contribute to each other and are unified aesthetically by plan or physical development;
F. It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the city of Highland;
G. It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation;
H. It is similar to other distinctive properties, sites, areas, or objects based on a historic, cultural, or architectural motif.
I. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning.
J. It is one of the few remaining examples in the city, region, state, or nation possessing distinguishing characteristics of an architectural or historical type of specimen. (Ord. 171 § 8.50, 1994)

1.4 Built Environment Study Area

The study area delineated for the Project encompasses the geographic areas within which the Project may directly or indirectly cause a substantial adverse change in the significance of a known or unknown historical resource. A substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (14 CCR § 15064.5[b][1]). The study area for built environment resources includes the Project footprint and any area adjacent to the Project footprint, where visual, atmospheric, or audible intrusions may directly alter physical characteristics of a historical resource that convey its historical significance, as well as any area where a historical resource may be indirectly affected by reasonably foreseeable Project related effects that occur later in time or are farther removed in distance.

Delineation of the study area for built environment resources considered the Proposed Project activities in conjunction with historic era buildings and structures that are 45 years of age or older (those built in or prior to 1978) that may sustain impacts as a result of the construction or operation of the project.[2] The study area is depicted in Figure 2 and is limited to the outer geographic boundaries of the following APNs: 1192-561-04; -05; and -06. The parcel at APN 1192-561-04 (26811 5th Street) contains one historic era building constructed in 1964 (subject property). Because this property was constructed more than 45 years ago and is proposed for demolition, it has been included in the Project study area. Additional considerations used to justify the delineation of the study area include the following:

- The area of direct physical effect is confined to the outer geographic boundaries of three contiguous parcels (APN 1192-561-04; -05; and -06) wherein all ground disturbance associated with the project will occur. The Project proposes to demolish all existing buildings on APN 1192-561-04 (26811 5th Street) to construct a single new industrial/warehouse building encompassing approximately 46,760 square feet (inclusive of 3,500 square feet of office/ mezzanine). Because of the geographically constrained nature of these activities, the area of direct physical effect is limited to the three Project parcels identified above and in Figure 2.
- The study area for visual, auditory, and atmospheric effects is also limited to the outer geographic boundaries of APN 1192-561-04; -05; and -06 as identified in Figure 2. None of the properties at the periphery of the study area have been identified as a historical resource, based on a review of the Office of Historic Preservation's Built Environment Resources Directory or the City of Highland local register of historic

[2] While the NRHP and CRHR apply an age-based threshold that considers the historical significance of resources that are 50 years of age and older for potential listing in federal and state registration programs, it has become a common, industry-wide practice in California to use a 45-year threshold, particularly for projects requiring compliance with CEQA. This practice is inferred in the CEQA Guidelines under § 15064.5(a)(2), which states that a "resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements [of] section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant." The statutory requirements of PRC § 5024.1(g)(2) specifically require that the survey and the survey documentation be prepared in accordance with office (i.e., Office of Historic Preservation) procedures and requirements. Those procedures and requirements are described in the Office of Historic Preservation's *Instructions for Recording Historical Resources* (1995) under the section, "What Kind of Resources Merit Recordation?" On page 2, the *Instructions* note that "any physical evidence of human activities over 45 years old may be recorded for purposes of inclusion in the OHP's [Office of Historic Preservation's] filing system. . .. The 45-year criteria recognizes that there is commonly a five-year lag between resource identification and the date that planning decisions are made. It explicitly encourages the collection of data about resources that may become eligible for the NRHP or CRHR within that planning period. More restrictive criteria [including the possession of significance and the retention of integrity] must be met before the resources included in OHP's filing system are listed, found eligible for listing, or otherwise determined to be important in connection with federal, state, and local legal statuses and registration programs."

resources. Therefore, the geographic extent for consideration of potential adverse visual, noise, and vibration effects is limited to the outer geographic boundaries of APNs 1192-561-04; -05; and -06.

- Since no historical resources were identified within or adjacent to the delineated study area, and since there are no reasonably foreseeable Project activities that would occur later in time or that would be farther removed in distance that could indirectly affect any historical resources in the area, the study area is limited to the outer geographic boundaries of APN 1192-561-04; -05; and -06, as identified in Figure 2.

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2 Background Research

2.1 CHRIS Records Search

Dudek completed a CHRIS records search for a project located at 3rd and Central in highland (approximately 0.15-mile south from the Project site) in 2022. Due to the recentness of this previous CHRIS records search and proximity of the two sites, this report uses the records search completed by Dudek in 2022 for the *Archaeological Resources Assessment for the 3rd Street and Central Avenue Warehouse Project, City of Highland, San Bernardino County, California* (located directly adjacent to the south from the Project site). On January 11, 2022, Dudek Staff performed a performed a CHRIS records search at the South Central Coast Information Center (SCCIC), located on the campus of California State University, Fullerton. The records search included the proposed Project site and a 0.5-mile radius. The CHRIS records search results include the SCCIC's collections of mapped prehistoric and historic archaeological resources and historic built-environment resources; Department of Parks and Recreation site records; technical reports; archival resources; and ethnographic references. Additional consulted sources included historical maps of the proposed Project site, the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historic Property Data File, and the lists of California State Historical Landmarks, California Points of Historical Interest, and the Archaeological Determinations of Eligibility.

Dudek reviewed the available SCCIC records to determine whether the implementation of the proposed Project would have the potential to impact historic built environment resources. Only records relevant to historic built environment resources that may be directly or indirectly impacted by the proposed Project are described in this report and presented in the tables below. See the *Draft Archaeological Resources Assessment for the Proposed 5th Street and Central Avenue Warehouse Project* completed by Dudek in 2023 for records pertaining to archaeological resources (Kry et. al 2023).

2.1.1 Previously Conducted Cultural Resource Investigations

Previously Conducted Cultural Resource Studies

Results of the cultural resources records search indicate that 12 cultural resource studies have been conducted within a 0.5-mile of the proposed Project site between 1984 and 2014. Of these studies, one (SB-07959) overlaps approximately 30 percent of the proposed Project site and one (SB-07309) is adjacent and north of the proposed Project site. Neither of these studies identified any designated or eligible historical resources. Table 2, below, details all 12 cultural resources studies followed by a brief summary of the reports that overlap and are adjacent the proposed Project site.

Table 2. Previous Technical Studies Within a 0.50-Mile of the Proposed Project Site

SCCIC Report No. (SB-)	Authors	Date	Title	Proximity to Proposed Project Site
01456	Schwartz, Steven J.	1984	Cultural Resources Survey: Norton Air Force Base Excess Lands	Outside

Table 2. Previous Technical Studies Within a 0.50-Mile of the Proposed Project Site

SCCIC Report No. (SB-)	Authors	Date	Title	Proximity to Proposed Project Site
02260	Carmichael, David	1991	Documentary Research and Field Reconnaissance Relating to Cultural Resources at Norton Air Force Base, California	Outside
03736	White, Laurie S. and Robert S. White	2000	A Cultural Resource Assessment of a 20 Acre Portion of the Jerry Lewis Community Center Project Site, City of Highland, San Bernardino County, CA. 17PP	Outside
05803	Alexandrowicz, John Stephen	2007	An Historical Resources Identification Investigation of the Light Industrial Shop Building Project, 27262 Meines Street, City of Highland, San Bernardino County, California.	Outside
06436	Tang, Bai "Tom"	2009	Historical/Archaeological Resources Reconnaissance: Fifth and Third Street Road Improvement, Cities of Highland and San Bernardino, San Bernardino County, California.	Outside
06630	Tang Bai "Tom" and Michael Hogan	2010	Identification and Evaluation of Historic Properties City Creek Bridge at third Street Replacement Project City of Highland, San Bernardino County, California	Outside
07144	Billat, Lorna	2012	New Tower Submission Packet, Highland Community Park, LA5625A	Outside
07309	Tang, Bai “Tom’ and Michael Hogan	2011	Historic Property Survey Report: Tiger 5th Street Improvement Project, Cities of Highland and San Bernardino, San Bernardino County, California.	**Adjacent**
07463	Tang, Bai "Tom"	2009	Cultural Resources Records Search, San Bernardino International Airport, City of San Bernardino, California.	Outside
07465	Puckett, Heather	2013	Peacock Candidate B, 7793 Central Ave, Highland CA	Outside
07823	Tang, Bai "Tom"	2014	Due-Diligence Historical/Archaeological Resources Survey: Third Street Between Victoria Avenue and Palm Avenue Between the Cities of Highland and San Bernardino, San Bernardino County, California.	Outside
07959	Hatheway, Rodger G.	1998	Determination of Eligibility for 50 Buildings in the City of San Bernardino	**Overlaps**

Report SB-07309

Historic Property Survey Report: Tiger 5th Street Improvement Project, Cities of Highland and San Bernardino, San Bernardino County, California (Tang and Hogan 2011), was conducted for the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) for Section 106 compliance and discusses the widening and roadway improvements for segments of 5th Street and Del Rosa Drive in the cities of Highland and

San Bernardino. The study included background research and a literature search, tribal consultation, outreach to local historical societies, and a field survey. The area of potential effect (APE) of this study included an area south of West 5th Street that is located north and outside of the current proposed Project site. The study demonstrates that no archaeological resources were identified within or in the immediate vicinity of the current proposed Project site, no State-owned cultural resources exist within the previous study's project APE and provided a finding of No Historic Properties Affected for the previous study's project.

Report SB-07959

Determination of Eligibility Report for 50 Buildings in the City of San Bernardino (Hatheway 1998), documents the results of a National Register of Historic Places (NRHP) evaluation for 50 buildings in the City of San Bernardino. The study focuses on buildings selected as being the "poorest of the poor" (Hatheway 1998: 1) and encompasses the southern portion of the proposed Project site. The study does not address archaeological resources, but rather focuses on historic built environment resources. None of the 50 buildings assessed qualified for individual listing in the NRHP.

2.1.2 Previously Recorded Cultural Resources

The SCCIC records indicate that 11 cultural resources have been previously recorded within 0.5-mile of the proposed Project site. The search also resulted in three (3) cultural resources associated with Norton Airforce Base, which is located approximately 1.5-milke from the Project site. These resources may have been included in error, but Dudek included them in the table below to accurately reflect the records results as provided by the SCCIC. none of these resources overlap or are adjacent to the proposed Project site. All 14 resources pertain to the historic built environment. None of the previously recorded historical resources are designated or eligible historical resources; they have all been recommended or determined ineligible as historical resources.

Table 3. Previously Recorded Cultural Resources Within a 0.50-Mile Radius of the Project Site

Primary Number	Description	Recording Events	NRHP/CRHR Status	Approximate Proximity to Proposed Project Site
P-36-013750	Commercial Building 27262 Meines Street	2007 (Alexandrowicz, ACS)	None listed	Outside; 1.5-mile**
P-36-015550	Building Norton Airforce Base Fire Station/Alternate Control Tower	1990 (Schmuecker, Mariani & Associates)	None listed	Outside; 1.5-mile**
P-36-015555* P-36-015554*	Building Norton Airforce Base Maintenance Shop	1990 (Schmuecker, Mariani & Associates	6Y	Outside; 1.5-mile**

Table 3. Previously Recorded Cultural Resources Within a 0.50-Mile Radius of the Project Site

Primary Number	Description	Recording Events	NRHP/CRHR Status	Approximate Proximity to Proposed Project Site
P-36-019635	Building 26952 5th Street	2000 (no author)	6Y	Outside; 0.35-mile southwest
P-36-025808	Single-family residences 27072 & 27080 5th Street	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.35-mile southwest
P-36-025809	Single-family residence 27060 5th Street	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.35-mile southwest
P-36-025810	Single-family residence 27140 5th Street	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.35-mile southwest
P-36-025811	Single-family residence 27136 5th Street	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.35-mile southwest
P-36-025812	Single-family residence 27124 5th Street	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.35-mile southwest
P-36-025813	Single-family residence 27112 5th Street	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.35-mile southwest
P-36-025814	Commercial Building 27075 & 27077 5th Street	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.30-mile west
P-36-025815	Commercial Building 8048 Palm Avenue	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.50-mile west
P-36-025816	Commercial Building 27111 5th Street	2011 (Ballester, D., CRM Tech)	6Y	Outside; 0.40-mile west

6Y: Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing

* There are two separate Primary Numbers for the same resource, which are included as one entry in this table.

** These resources are associated with the Norton Air Force Base, which is located approximately 1.5-mile west of the subject property. These resources are further away from the Project site than 0.50-mile but are included in order to accurately reflect the records search results as provided by the SCCIC.

2.2 Building Development and Archival Research

Building development and archival research were conducted for the subject property in an effort to establish a thorough and accurate historic context for the significance evaluations, and to confirm the building development history of the Project site.

San Bernardino County Assessor Property Information Management System (PIMS)

Dudek obtained the Property Information Management System (PIMS) report for the subject property on April 3, 2023, which provided information about construction dates and current owners for the properties discussed in this report. Using this information, Dudek was able to research the chain of ownership for the subject property dating from 2010 to 2023.

ParcelQuest

On April 3, 2023, Dudek used ParcelQuest to access San Bernardino County Assessor's information about the properties located within the Project site. Information regarding dates of construction and current owner name(s) was used in the preparation of the evaluations of significance and historic context.

San Bernardino County Digital Library

Dudek reviewed several books and researched historical photographs available from the San Bernardino County Digital Library. All available information obtained from the library was used in preparation of the historic context and evaluations of significance for the subject properties.

City of Highland Building & Safety

Dudek submitted a public records request for building permits associated with Address to the Highland City Clerk on April 3, 2023. The City of Highland responded to the public records request and sent Dudek digital building permits for the subject property on April 13, 2023, Dudek reviewed all available permits, and all information obtained was used in the preparation of the historic context and significance evaluations. Building permits are included in Table 6 in Section 5.2 Building Permits and Identified Alterations.

Historical Newspaper Review

Dudek reviewed historical newspapers from Newspapers.com covering Highland and surrounding cities to understand the development of the City of Highland and the development of the subject property. These documents were used in the preparation of the historic context, history of the subject property, and significance evaluations.

Sanborn Fire Insurance Maps

A review of historical Sanborn Fire Insurance Maps from the Library of Congress and the Los Angeles Public Library covering the City of Highland was conducted as part of the archival research on the subject property. Maps were identified from the years 1889, 1907, 1918, and 1930. This coverage pre-dates the construction of the subject property.

Historical Aerial Photographs

A review of historical aerial photographs was conducted as part of the archival research effort from the Nationwide Environmental Title Research LLC (NETR) from the years 1938, 1959, 1966, 1968, 1980, 1984, 1985, 1994,

2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020. The results of the aerial photograph review are in Table 4 in Section 4.4 History of the Subject Property.

Online Archive of California (OAC)

The Online Archive of California (OAC) provides free public access to detailed descriptions of primary resource collections maintained by more than 300 contributing institutions including libraries, special collections, archives, historical societies, and museums throughout California and collections maintained by the 10 University of California campuses. A search of OAC for the subject property's address, street name, and historic occupants by Dudek on April 3, 2023, did not identify any archival collections with information pertaining to the subject property.

Calisphere

Calisphere provides access to 2,000 collections contributed by more than 300 cultural heritage organizations in California, including universities, libraries, archives, museums, and historical societies. Dudek conducted a search for the subject property's address, the street name, historic occupant names, and Highland generally to identify any archival information or documents pertaining to the property on April 3, 2023. This search did not identify any resources pertaining to the subject property.

Additional Documentation

An April 3, 2023, search of the Built Environment Resource Directory (BERD) maintained by the California Office of Historic Preservation (OHP) indicated that the subject property had not been previously recorded. Additional searches for previous evaluations of the subject property, including through the City of Pomona website and CEQAnet, a database that contains key information from all CEQA documents submitted for state review since 1990, also did not identify previous recordation or evaluation of the subject property. The subject property is not a designated landmark in the City of Highland.

2.3 Aerial Photograph Review

The subject property is located at 26811 5th Street and was constructed in 1964. It is bounded by West 5th Street to the north, Central Avenue to the east, and East 3rd Street to the south. To understand the development of the subject property, a review of all available historic aerial photographs, accessed via the Nationwide Environmental Title Research LLC (NETR), was conducted. A discussion of the aerial photographs taken between 1938 and 2020 is included in Table 4 below (NETR 2023):

Table 4. Historical Aerial Photograph Review of the Project Site and Environs

Photograph Year	Observations and Findings
1938	The area surrounding the Project site is rural and largely undeveloped with some small residential farms to the north and west. Narrow roads are visible throughout the landscape and the road that is now Thirds Street is visible south of the property. There is no development on the Project site at this time.
1959	The Project site remains undeveloped. The surrounding area is partially developed with residential and commercial properties. An airport has been constructed on the south side of Third Street, located to the south of the Project site. Third Street has been realigned to its current configuration to the west of the Project site. Additional gridded streets have been developed throughout the surrounding area.

Table 4. Historical Aerial Photograph Review of the Project Site and Environs

Photograph Year	Observations and Findings
1966	The subject property, a single-family residence with an irregular plan and detached garage on its south elevation, is visible on the Project site. The surrounding area remains partially developed. More residential development is visible north, east, and west of the Project site. The area to the south of the Project site remains primarily undeveloped with agricultural fields further south.
1968	There are no discernable changes to the Project site. The surrounding area remains partially developed with increased residential to the north, east, and west.
1980	Fencing has been added to the backyard (south elevation) of the subject property. The surrounding area remains partially developed, with the proliferation of residential development continuing. The parcels directly surrounding the Project site to the east, south, and west, remain undeveloped.
1984	There are no discernable changes to the Project site. Residential development continues to proliferate in the surrounding area.
1994	There are no discernable changes to the Project site. The parcel directly east of the subject property has been developed.
2002	An addition to the rear (south) elevation of the subject property's garage is visible. There are no additional discernable changes to the Project site or surrounding area.
2005	There are no discernable changes to the subject property or surrounding area.
2009	A single-family neighborhood has been demolished west of the Project site, between Sixth and Third Streets and Victoria Avenue and Lankershim Avenue. Otherwise, there are no additional discernable changes to the Project site or surrounding area.
2010, 2012, 2014, 2016, 2018	There are no discernable changes to the Project site or surrounding area.
2020	There are no discernable changes to the Project site. The parcel south of the Project site on the south side of Third Street has been paved with concrete.

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3 Field Survey

3.1 Methods

Dudek Cultural Resources Specialist Linda Kry, BA conducted an intensive survey of the subject property on May 18, 2023. The survey entailed walking around the building exterior of the subject property and its site and documentation with notes and photographs, specifically noting character-defining features, spatial relationships, observed alterations, and any historic landscape features. The survey did not include the interior of the subject property.

3.2 Results

The only extant built environment resource on the Project site is a single-family residence located at 26811 5th Street (APN 1192-561-04) constructed in 1964. Because it was constructed over 45 years ago, the subject property was identified as requiring recordation and evaluation for historical significance. This property is described and evaluated for historical and architectural significance in Section 5. Evaluation of Significance. A State of California Department of Parks and Recreation Series 523 (DPR) form for the subject property is located in Appendix B.

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4 Historic Context

This chapter provides an overview of the history of the region where the project is located and specific relevant historical information on the built environment properties located in the study area.

4.1 Historic Period Overview

Post-contact history for the State of California is generally divided into three periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins with the establishment in 1769 of a settlement at San Diego and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 marks the beginning of the Mexican Period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican–American War, signals the beginning of the American Period when California became a territory of the United States. This section is included to provide relevant context and allow for a better understanding of the development of the area surrounding the proposed Project site.

Spanish Period (1769–1822)

Spanish explorers conducted sailing expeditions along the coast of Southern California between the mid-1500s and mid-1700s. In search of the legendary Northwest Passage, Juan Rodríguez Cabríllo stopped in 1542 at present-day San Diego Bay. With his crew, Cabríllo explored the shorelines of present-day Catalina Island as well as San Pedro and Santa Monica Bays. Much of the present California and Oregon coastline was mapped and recorded in the next half-century by Spanish naval officer Sebastián Vizcaíno. Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica Bays, giving each location its long-standing name. The Spanish crown laid claim to California based on the surveys conducted by Cabríllo and Vizcaíno (Bancroft 1885; Gumprecht 1999).

More than 200 years passed before Spain began the colonization and inland exploration of Alta California. The 1769 overland expedition by Captain Gaspar de Portolá marks the beginning of California's Historic period, occurring just after the king of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. With a band of 64 soldiers, missionaries, Baja (lower) California Native Americans, and Mexican civilians, Portolá established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. In July of 1769, while Portolá was exploring Southern California, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823 (Bancroft 1885; Gumprecht 1999).

Mission San Gabriel Arcángel, in San Gabriel Valley (modern day Alhambra), was established in 1771 as the fourth mission. Though the original 1771 mission was destroyed in a flash flood, a new mission was built in 1776 and el Pueblo de Nuestra Señora la Reina de Los Ángeles, further west, was established in 1781 to support this mission. The mission, like many other Spanish occupations, used Spanish military forces to compel the local Tongva population into the mission's service, baptizing them as neophytes and renaming them the Gabrieliños. The San Gabriel Mission lands extended from Los Angeles east as far as San Bernardino de Sena Estancia (1810), and the San Bernardino Valley. This includes present-day Rancho Cucamonga, which was one of the primary ranchos

under Mission San Gabriel Arcángel control (Mertz 1976: 8). The Tongva village at Kuukaamonga (Red Hill; purported to mean "sandy place" Mertz 1976: 7) persisted through this period and its name was first recorded in 1785 by the missionaries at Mission San Gabriel Arcángel. In the same mission baptismal register, the Tongva and Serrano village names of Cucamonga, Cucamobit, and Cucamabuit, etc., occurred 102 times for the period 1785-1813 (Chattel 2010; Heizer 1978).

Despite early European and Spanish contact in 1771, many Serrano remained relatively autonomous until the mid- to late-1800s. However, there is indication that Serrano peoples closest to the missions of San Fernando and San Gabriel were more heavily missionized and removed from their villages en masse between the years 1819 and 1834 (Bean and Smith 1978a; Warren 1984). Today, the San Manuel Band of Mission Indians is Serrano, while Morongo includes Serrano and Cahuilla peoples, and the Serrano Nation is comprised of Serrano peoples.

Mexican Period (1822–1848)

A major emphasis during the Spanish Period in California was the construction of missions and associated presidios to convert the Native American population to Christianity and integrated communal enterprise. Incentives were also provided to bring settlers to pueblos or towns, but just three pueblos were established during the Spanish Period, only two of which were successful and grew into California cities (San José and Los Angeles). Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dallas 1955; Kyle et al 2002).

Extensive land grants were established in the interior during the Mexican period, in part to increase the population inland from the more settled coastal areas where the Spanish first concentrated their colonization efforts. The subject property, and the majority of the City of Highland fell within Rancho San Bernardino, an *asistencia* which had been created by Mission San Gabriel in 1819, just a few years before independence. After Mexico's Secularization Act of 1833, all Mission lands were secularized and removed from the control of the church and given to political figures, friends, and members of the military. In 1842, Governor Juan B. Alvarado awarded the 35,509 acres of San Bernardino and Yucaipa Valleys to Don Antonio Maria Lugo for his three sons: José del Carmen Lugo, José Maria Lugo, Vicente Lugo, and José del Carmen's friend, Diego Sepulveda. The Lugo sons grazed cattle extensively in the area, turning their family industry to beef and cattle hides (Bancroft 1885; Brown and Boyd 1922; Dallas 1955).

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary Southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of non-native inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities (Dallas 1955).

American Period (1848–Present)

War in 1846 between Mexico and the United States precipitated the Battle of Chino, a clash between resident *Californios* and Americans in the Highland area. The Mexican–American War ended with the Treaty of Guadalupe

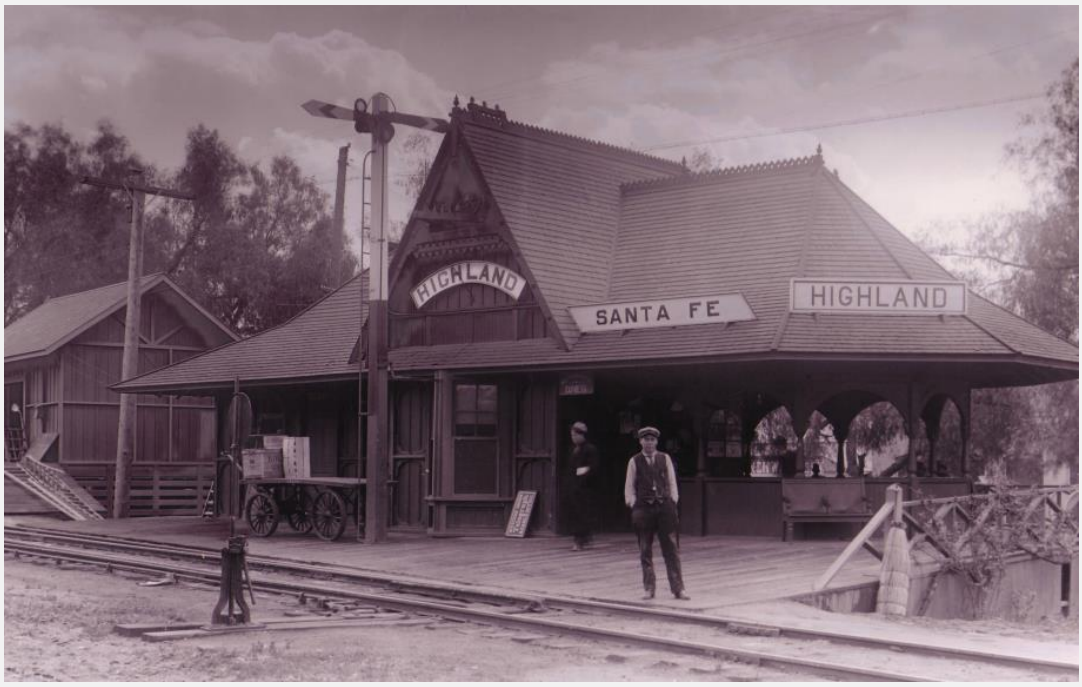
Hidalgo in 1848, ushering California into its American period. California officially became a state in 1850. Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the Southern California economy through 1850s. The Gold Rush began in 1848, and with the influx of people seeking gold, cattle were desired not just for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho *vaqueros* drove large herds from Southern to Northern California to feed that region's burgeoning mining and commercial boom. The cattle boom ended for Southern California as neighboring states and territories drove herds to Northern California at reduced prices. Operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity (Cleland 2005).

4.2 Historical Overview of the City of Highland

Highland's settlement began in 1856 when John Henry Cram and six of his eight sons established a settlement known as Cramville, located in the northeastern area of The Village Lakes subdivision at 5th and Orange Streets. Cram and his family were the first known white settlers in the area. Cram and fellow settler Frederick Van Leuven constructed a ditch in 1858 to bring water from the Santa Ana River to their lands in East Highland. The ditch ran from City Creek into the present site of Highland. In 1857, Henry Rabel, a German immigrant, purchased forty acres along what is now Base Line Street, west of Victoria Avenue. Rabel purchased 80 additional acres in 1859, which became Rabel Springs, named for the large pond and natural thermal wells located on the land. Rabel capitalized on the medicinal quality of the springs and constructed bathhouses and an eleven-room hotel for tourists. The area became popular as a recreation spot and in 1887 Harlem Springs was developed east of Victoria Avenue. Harlem Springs included a swimming pool, bathhouses, an entertainment hall, and picnic grounds. This led to multiple civic improvements including the area's first county road in 1860, Santa Ana Canyon Road (now West 5th Street) (Beattie 1994, 2004; SBPL 2021).

The area that became Highland was developed as separate settlements. This included Messina in 1873 at Base Line and Palm Avenues. Messina's location was approximately the midpoint of the emerging towns and as a result, became the commercial center. Buildings were constructed for private businesses, soon followed by a Post Office and grocery store. The first school district was formed in Cram in 1869 and with its rising population, Messina formed a district named Highland soon after. This was the first formal use of the name Highland. Prior to this, the whole area was referred to as the Highlands because of the altitude and proximity to the San Bernardino Mountain foothills. In 1885, the Santa Fe Railroad (California Southern Railway) constructed a new line through the Cajon Pass, connecting San Bernardino to the rest of the state. Rail line expansion began soon after with prominent men in Redlands raising $42,750 to purchase rights-of-way and depot grounds connecting San Bernardino to Redlands, which was soon expanded to Mentone. Local railroad officials thought a loop from Mentone back to San Bernardino would be most efficient by way of present-day Highland. Though not officially incorporated as the city, the name Highland was used for the train depot and became the preferred identifier for the community. In January 1892, the loop of the "Kite Shaped Track" was finished as a 158-mile-long figure eight from the Santa Fe yards in Los Angeles east to Mentone and back (Exhibit 1). The line offered both freight and passenger services and opened San Bernardino County to more land development and settlement (Beattie 1994, 2004).

Exhibit 1. The first Highland Depot, built in 1891, circa 1910



Source: Photo from the collection of Mark Landis, The Sun

The presence of the railroad not only brought more people to the area but new industries and commercial opportunities as well. By the early 1880s agriculture development was increasing with the planting of citrus orchards throughout Highland and San Bernardino County. Citrus was considered a high-value crop and required well-drained upland soils. This led to the construction of the North Fork Ditch in 1881, which diverged from the Cram and Van Leuven Ditch and ran west along the mountains. The dependable water supply stimulated agricultural development and production. Citrus groves were present in the area starting in 1857, but it was not until the Washington navel orange was introduced in 1873 that it became the leading industry. Between 1881 and 1892, over a thousand acres of citrus were planted in Highland (Figure 2). The railroad also brought the fruit packing and lumber industries to the area, while the area remained dependent on the citrus industry (McAvoy 2000).

Exhibit 2. East Highlands Citrus Association, Highland Grove Brand label, circa 1900-1940



Source: UC Riverside Special Collections and University Archives

At the turn-of-the-century, Highland's growth had accelerated with the construction of a library, community hall, packing houses, a new business building on Palm Avenue, and many new residences. Highland and downtown San Bernardino were connected in 1903 with the establishment of the Bernardino Valley Traction Company's electric railway line. The local economy remained dependent on the citrus industry and as a result, fluctuated based on how well the industry did. In 1913, a freeze hit Southern California killing many citrus trees and resulting in an economic standstill for several years (Beattie 1994, 2004; McAvoy 2000).

The 1920s brought multiple changes to the town, including the construction of more packing houses and the Zimmerman Addition, which added the area north of the Santa Fe right-of-way to the city boundary. A series of disasters hit the area in the 1930s including multiple fires, which destroyed packing houses and the Highland Orange Association building. Highland's identity as a closely-knit citrus community began to change due to outside influences. The popularity of the automobile led to fewer people utilizing the railroads for passenger travel. In July 1936, Pacific Electric discontinued passenger service on the Highland branch line (McAvoy 2000).

The 1940s brought a period of change to the area, including suburbanization with citrus groves being replaced by housing tracts. As the United States entered World War II, the U.S. Army Air Corps established a training center just south of the City in 1941. Following the attack on Pearl Harbor, the training center's role shifted to being a fighter plane mobilization point to defend the City of Los Angeles in the event of an attack. In 1942, the training center was named San Bernardino Army Airfield. After the war, in 1950, it was renamed Norton Air Force Base (Beattie 1994, 2004; McAvoy 2000).

After World War II, a postwar population boom affected not only Highland but much of the Los Angeles Basin, resulting in citrus packing houses closing because of losing their supporting orchards to suburban development.

Packing houses were converted to light industrial uses as housing tracks replaced the groves. The Pacific Electrical Railway discontinued service in 1953 resulting in the removal of its tracks. The Santa Fe Railroad soon followed with the abandonment of its Highland line in the early 1980s. Residential development in present-day Highland accelerated in this period, as formerly agricultural land became subdivided for single-family residences. The population of the area continued to accelerate in subsequent decades, contributing to the city's eventual incorporation at the end of the 1980s (Beattie 1994, 2004; McAvoy 2000).

The City of Highland was officially incorporated in 1987. The Highland Chamber of Commerce in the 1980s pushed for the formation of the City of Highland, which was incorporated on November 24, 1987. The City included 32,300 acres with a population of approximately 34,439 in 1990. In 1994, San Bernardino Army Airfield closed and was redeveloped into the San Bernardino International Airport. By 2000, Highland had been transformed from a small agrarian society to a city surrounded by a large urban area. The City's population in 2010 was recorded at 53,104 a nineteen percent increase from 2000. The City is generally divided into two regions, East Highland and Highland divided by State Route 210, and remains a blend of old and new (Beattie 1994, 2004; McAvoy 2000).

4.3 Architectural Style

Ranch Style (1935-1975)

Ranch-style houses in California reflect a national trend of fascination with the "Old West" and were a building style of choice for tract housing. Ranch homes were originally developed in the western and southwestern United States, but quickly gained national popularity through the dissemination of do-it-yourself manuals and plans in national magazines such as *Sunset, Better Homes And Gardens,* and *House Beautiful.* Later, Ranch houses were popular as a custom-built type of housing, which was especially common in the later 1940s and 1950s. During the 1940s, the style was one of the few built under Federal Housing Administration financing guidelines. Ranch houses built in the 1940s were smaller in size than later versions after builders lobbied for higher loan limits and Federal Housing Administration guidelines were revised in the 1950s. In many California cities, examples of the style were abundant as it became the most prevalent type of post-World War II suburban tract-style housing (McAlester 2013; City of San Diego 2007).

Ranch style houses are usually a one-story, single-family residence. Houses designed in this architectural style include several identifying characteristics such as rambling, elongated plans; a horizontal emphasis; general asymmetry; free-flowing interior spaces; and a designed connection to the outdoors. Features such as low-pitched roofs with wide eaves, a combination of cladding materials including board-and-batten siding, brick and stone chimneys, and large picture windows were commonly applied and evoked an aesthetic that was reminiscent of these past architectural traditions. Decorative features such as wood shutters and dovecotes were often added to enhance the rusticated appearance of Ranch houses (Grimes and Chiang 2009; Horak et.al. 2015).

The subject property further displays elements of the Mid-century modern "Swiss Miss" style that was popularized by architect Charles Dubois in Palm Springs. Dubois' Swiss Miss homes were concentrated in the Vista Las Palmas neighborhood of Palm Springs Residences. Residences designed in the Swiss Miss style are typically low-lying, one-story residences with dramatic A-frame roofs rising from the ground and spanning the width of the building's primary elevation. The style is also characterized by its shingled gabled roof. Although the subject building represents a modest example of Dubois' high-style residences, it features a prominent front-facing, A-frame gable characteristic of the style (Gibson 2018).

Character-defining features of the Ranch style include:

- Rambling, elongated plans with a horizontal emphasis
- One to two stories in height
- Low-pitched gabled or hipped roofs with overhanging, open eaves
- General asymmetry
- Free-flowing interior spaces
- Designed connection to the outdoors
- Cladding featuring stucco, board and batten, shingles, clapboard, or a combination of materials
- Brick or stone chimneys details
- Attached garages often linked to residence by breezeways
- Stone, brick, board and batten, clapboard, or horizontal wood siding used for accent on walls, secondary cladding types, and planters
- Functional and non-functional shutters details as trim around windows
- Fenestration may include a picture window

4.4 History of the Subject Property

Since its construction in 1964, the subject property has been a single-family residence. It was originally constructed as a model home in the "Forty Niner" style for the Lincoln Construction Company, a building company based in San Bernardino that specialized in custom-built homes and was owned by builder, contractor, and real estate broker DeWitt Dillard. Until 2023, the subject property was owned by the Dillard family. Prior to its construction, the parcel on which the subject property sits was undeveloped.

Owners/Occupants

Table 5 below includes known owners and occupants of 26811 5th Street. The subject property was built in 1964 by the Lincoln Construction Company, founded by Dewitt Dillard, as a model home for potential buyers to visit prior to purchasing a home of their own. Until 2023, the subject property was owned by the Lincoln Construction Company or the Dillard family. Research did not reveal that any of the subject property's owners or occupants are persons important to our past.

Table 5. Ownership/Occupancy History of 26811 5th Street, Highland, California

Year	Owner	Notes	Source
1965 – circa 1997	Lincoln Construction Company/Dewitt Dillard	The subject property was constructed as a model home for the Lincoln Construction Company and was used to show potential buyers' a typical blueprint.	San Bernardino County Sun 1965b: 73
At least 1997 - 2015	Loyce C. and Dewitt Dillard	Dewitt Dillard was the owner of the Lincoln Construction Company. He died in 2010. Loyce Dillard was married to Dewitt Dillard.	San Bernardino County PIMS* Building Permits

Table 5. Ownership/Occupancy History of 26811 5th Street, Highland, California

Year	Owner	Notes	Source
			San Bernardino County Sun 2010
2015-2023	Dillard House Trust	Trust of the Dillard family	San Bernardino County PIMS*
2023- present	Patriot 5th and Central LLC	Real estate development company	San Bernardino County PIMS*

* The San Bernardino County Property Information Management System can be accessed via: http://www.sbcounty.gov/assessor/pims/PIMSINTERFACE.ASPX.

Builder: Lincoln Construction Company/Dewitt Dillard

The subject property was built by Lincoln Construction Company as a model home. The Lincoln Construction Company was a contracting and building company active in the San Bernardino area in the mid-20th century. The company was founded by Dewitt Dillard in 1963. DeWitt Dillard, who owned the subject property, reportedly owned the Lincoln Construction for more than 47 years. He was born in Big Springs, Texas in 1924. While in California, Dillard worked as a broker, in addition to the sales and construction work he did at the Lincoln Construction Company. Dewitt Dillar's brother, Chip "Muddy" Dillard, also worked at the Lincoln Construction Company until he moved back to Texas in 1984. Dewitt Dillard was married to Loyce Dillard and the couple had four children. Dillard died in 2010 (San Bernardino County Sun 2010; San Bernardino County Sun 1967: 62; Abilene Reporter-News 2001: 41).

The Lincoln Construction Company specialized in custom-built homes, which allowed buyers to select from several pre-designed floor plans sold at a base cost with the possibility of adding on additional features for additional fees. This style of home construction proliferated after World War II and allowed for quick and inexpensive construction of single-family homes using prefabricated components (California Department of Transportation 2011: 58).

In the 1960s, the Lincoln Construction Company had an office at 888 E. Highland Avenue in San Bernardino. In addition to the subject property, research identified several other projects constructed by the Lincoln Construction Company, including a residence on Vickey Way in Yucaipa, CA. In 1966, the company was selected to construct four handball courts at San Bernardino municipal parks. These arks were: Gateway, Encanto, Lytle Creek, and the Meadowbrook Recreation Center. Advertisements from the business (San Bernardino County Sun 1966: 19; Redlands Daily Facts 1963: 6).

According to promotional material associated with the subject property and Lincoln Construction Company (Exhibits 3 and 4), Lincoln Construction Company developed 30 floor plans that customers could select from and have the company construct on an empty lot for a total cost of between $9,250 and $10,500. The subject property was called the "Forty-Niner" model. Other models promoted by the company included the "Hawaiian," the "El Dorado," and the "Californian" (San Bernardino County Sun 1965a: 77; San Bernardino County Sun 1965b: 73).

Exhibit 3. Advertisement from 1965 for Lincoln Construction Company. The subject property was built as a model home for the company to persuade potential buyers to purchase a home built by the company.



Source: San Bernardino County Sun 1965b: 73

Exhibit 4. Advertisement from 1965 for Lincoln Construction Company showing the subject property as a model home and noting the various floor plans available from the company.



Source: San Bernardino County Sun 1965a: 77

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5 Evaluation of Significance

This chapter provides a physical description and an evaluation of the subject property in consideration of NRHP, CRHR, and City of Highland designation criteria and integrity requirements.

5.1 Property Description

The subject property at 26811 5th Street (APN: 1192-561-04) is bounded by Central Avenue to the east, East Third Street to the south, Victoria Avenue to the west, and West Fifth Street to the north. The property is located approximately 1.2-miles west of I-210. The property contains one single-family residence constructed in 1964 (Exhibit 5), with a detached garage to rear of the residence. The primary (north) elevation is oriented towards 5th Street and is fronted by a brick planter and lawn that is enclosed with a chain-link fence. An asphalt driveway from 5th Street leads to the rear of the house, and a concrete pedestrian walkway accessed by a chain-link gate from driveway leads to the primary (north) elevation of the residence. A metal bar gate separates the front of the property from the rear. The rear of the property is enclosed by a vertical wood board and contains a lawn as well as a concrete patio along the rear (south) elevation of the residence and east elevation of the garage.

The subject property is a single-story, Ranch-style residence with Swiss Miss architectural influences. It has an irregular plan with a composition tile, cross-hipped roof with open eaves and exposed rafters (Exhibits 6-8). The primary (north) elevation also features a prominent front-facing A-frame gable with decorative bargeboard that is supported by wood posts. The building is primarily clad with smooth stucco, and features metal board and batten and brick siding beneath the front gable on the primary (north) elevation. The entrance is recessed on the primary (north) elevation and contains a partially-glazed, double door. A secondary entrance featuring a sliding door is located on the south elevation of the projecting volume on the primary (north) elevation. Fenestration consists of ungrouped vinyl sash, sliding windows and casement windows.

The garage (Exhibit 9) is located to the south of the subject property and has a rectilinear footprint with a gable roof clad in composition tile and featuring open eaves and exposed rafters. The primary (east) elevation has two roll-up garage doors. there is a one-story L-shaped addition clad in wood siding that extends from the garage's south elevation. The parcel on which the subject property sits also has a freestanding short flight of brick stairs with a metal handrail and a concrete pad located on the east elevation (Exhibit 10).

Exhibit 5. Primary (north) elevation of the subject property, view to the south



Source: Dudek

Exhibit 6. East elevation of the subject property, view to the southwest



Source: Dudek

Exhibit 7. Oblique view of the south and east elevations, view to the northwest



Source: Dudek

Exhibit 8. West elevation of the subject property, view to the southeast



Source: Dudek

Exhibit 9. East elevation of the subject property's garage, view to the west



Source: Dudek

Exhibit 10. Freestanding flight of brick stairs and concrete pad located along the eastern edge of the subject property's parcel, view to the southeast



Source: Dudek

5.2 Building Permits and Identified Alterations

Table 6 includes all known alterations to the subject property. This table was compiled through archival research of City of Highland building permits provided via the City Clerk's Office. The City of Highland provided only one building permit for the subject property; this research did not identify an original building permit for the subject property.

Table 6. Building Permits for 26811 5th Street, Highland California

Date	Address	Permit Number	Description of Work	Owner	Architect (A)/ Engineer (E)/ Contractor (C)	Valuation
2/11/1997	26811 5th Street	11807	Tear off and re-roof with composition tiles	Dewitt Diller	E.J Jure Roofing (C)	None listed

In addition to the identified alterations from building permits, Dudek observed the following alterations based on physical survey of the subject property and comparative analysis between current photographs of the subject property and advertisements of the property as a model home published shortly after its construction in 1965 (Exhibits 3 and 4 in Section 4.4). The dates of these alterations are unknown:

- Replacement windows
- Replacement doors
- Removal of shutters
- Garage door infill with stucco and a sliding door

5.3 NRHP / CRHR Statement of Significance

The property at 26811 5th Street does not meet any of the criteria for individual listing in the NRHP or the CRHR or as part of an existing historic district, as demonstrated below.

Criterion A/1: That are associated with events that have made a significant contribution to the broad patterns of our history.

To be eligible for listing in the National Register under Criterion A, a property must be associated with events that have made a significant contribution to the broad patterns of our history. The subject property was constructed as a model home in 1964 by the Lincoln Construction Company, a building company active in San Bernardino from 1963 until 2010. The subject property was one of several floor plans sold by the Lincoln Construction Company (San Bernardino County Sun 1965a: 77; San Bernardino County Sun 1965b: 73; San Bernardino County Sun 2010). While construction is an important industry, there is no indication that the Lincoln Construction Company was a particularly innovative or significant businesses either regionally or nationwide.

National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation states that "mere association with historic events or trends is not enough, in and of itself, to qualify under Criterion A: the property's specific association must be considered important as well" (USDOI 1995: 12). Archival research did not find that

the subject property is associated with any events that have made a significant contribution to the broad patterns of history.

The subject property was constructed in 1964, during a period of intensive post-world War II single-family residential development that proliferated throughout Southern California and present-day Highland from 1945 to approximately 1980 (California Department of Transportation 2011: 58). Historic aerial photographs indicate that residential development in the surrounding area appears to have slowly increased throughout the late 1960s until the mid-1980s (NETR 2023; UCSB 2023). While the subject property was part of this general trend of postwar residential development and as a model home was purpose-built to encourage more residential development, there is no indication that the construction of the subject property is associated with a pivotal movement in the history of the neighborhood or city. It was neither the first nor the last of its type and merely followed a continuous pattern of postwar residential development.

The subject property is also not known to be directly associated with any events that have made a significant contribution to the history of the City of Industry, California, or the United States and, therefore, the subject property does not appear eligible under NRHP Criterion A or CRHR Criterion 1.

Criterion B/2: That are associated with the lives of persons significant in our past.

To be found eligible under NRHP Criterion B or CRHR Criterion 2 the property must be directly tied to an important person and the place where that individual conducted or produced the work for which he or she is known. Archival research did not indicate any such direct association between the subject property and individuals that are known to be historic figures at the national or state, level. The subject property was constructed in 1964 by the Lincoln Construction Company, as a model home. DeWitt Dillard, who owned the subject property, was the owner of Lincoln Construction from 1963 until his death in 2010 (San Bernardino County Sun 2010). Until 2023, the subject property was owned by the Dillard family. While Dillard was an active broker, builder, and contractor in Highland and San Bernardino County, there is also no indication that Dillard's association with the subject property rises to the level of significance required for eligibility.

Research did not uncover additional information that these or other listed owners of the subject properties were important in history Due to a lack of identified significant associations with important persons in history, the subject property is recommended not eligible under NRHP Criterion B or CRHR Criterion 2.

Criterion C/3/3: That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

The subject property is a single-story, Ranch style building with Swiss Miss influences constructed in 1964 by the Lincoln Construction Company as a model home. While the subject property does reflect character-defining features of the Ranch and Swiss Miss styles, including its rambling, elongated plan with horizontal emphasis; one-story height; low pitched gable roof with overhanging open eaves; prominent front-facing A-frame gabl; and stucco and board and batten cladding, the subject property is not a particularly distinctive example of the Ranch style. The subject property represents a ubiquitous property type found throughout the region. Additional examples of similar Ranch style residences from the 1960s-1970 can be found on the blocks immediately surrounding, including several located north of the subject property along 6th Street, including 26750 6th Street (1963); 26740 6th Street

(1962); and 26737 6th Street (1964). Similar buildings to the subject property are extant throughout Southern California, Highland, and the nation.

The subject property appears to have been constructed using well-documented and common construction techniques and methods and does not embody distinctive characteristics of a type, period or method of construction and does not possess high artistic values. Research further did not identify the subject property as being designed by a master architect, builder, or contractor. The subject property was designed by the Lincoln Construction Company as a model home. There are other examples of the company's designs throughout Southern California as the company constructed identical residences on undeveloped land throughout the region in the mid-century.

The last component of Criterion C, representing a significant and distinguishable entity whose components may lack individual distinction, is the most applicable to districts. The subject property does not appear to contribute to a potential historic district. Therefore, the subject property does not appear eligible under NRHP Criterion C or CRHR Criterion 3.

Criterion D/4/4: That have yielded, or may be likely to yield, information important in prehistory or history.

The subject property is not significant under Criterion D of the NRHP or Criterion 4 of the CRHR as a source, or likely source, of important historical information nor does it appear likely to yield important information about historic construction methods, materials or technologies.

5.4 City of Highland Statement of Significance

The property at 26811 5th Street (APN 1192-561-04) does not meet any of the City of Highland's designating criteria for local listing as demonstrated below.

A. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

As discussed under NRHP/CRHR Criteria A/1, archival research did not identify the subject property as being associated with historical events significant to the City of Highland, nor does it reflect special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history. As such, the subject property does not meet local criterion A.

B. It is identified with persons or events significant in local, state, or national history.

As discussed under NRHP/CRHR Criteria A/1 and B/2, archival research did not identify the subject property as being the location of any significant historical events or as being associated with an important person in the City of Highland, California, or United States. As such, the subject property does not meet local criterion B.

C. It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship.

As discussed under NRHP/CRHR Criteria C/3, the subject property is a modest example of the Ranch style. It appears to have been constructed with prefabricated pieces based on a uniform and easily replicable floorplan. While the subject property does embody some characteristics of the Ranch Style and the Swiss Miss style, such as

its rambling, elongated plan, low pitched roof, general asymmetry, and the prominent front-facing A-frame gable, it is not a particularly distinctive example of this architectural style subtype, nor is it a valuable example of the use of indigenous materials or craftsmanship. As such, the subject property does not meet local criterion C.

D. It is representative of the work of a notable builder, designer, or architect.

As discussed under NRHP/CRHR Criteria C/3, archival research did not uncover that the subject property was identified with a builder, designer, or architect whose work could be considered notable within the City of Highland.

E. It contributes to the significance of an historic area, being a geographically definable area possessing a concentration of historic or scenic properties or thematically related grouping of properties which contribute to each other and are unified aesthetically by plan or physical development.

The subject property does not contribute to the significance of an historic area nor is it thematically related to a group of properties which contribute to each other and are unified aesthetically by plan or physical development. The area surrounding the subject property consists of a mix of property typology and uses constructed at different periods of time. As such, the subject property does not meet local criterion E.

F. It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the city of Highland.

The subject property does not have a unique location or singular physical characteristics, nor is the property a view or vista representing an established and familiar visual feature of a neighborhood, community, or the City of Highland. The subject property is located on 5th Street and is adjacent to undeveloped parcels to the north and south, residential development of the east, and industrial development to the west and south. The subject property is setback from the road and does not represent a view or vista establishing a familiar visual feature. As such, the subject property does not meet local criterion F.

G. It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation.

As discussed under NRHP/CRHR Criteria C/3, the subject property is a modest example of a Ranch style house reflecting elements of the Swiss Miss architectural style. It is not a rare postwar residential housing typology in the San Bernardino County area. The subject property appears to have been constructed using already well-documented construction materials and techniques. Therefore, it does not embody a significant structural or architectural achievement or innovation. As such, the subject property does not meet local criterion G.

H. It is similar to other distinctive properties, sites, areas, or objects based on a historic, cultural, or architectural motif.

The subject property does not possess similar characteristics to properties, sites, areas, or objects based on a historic, cultural, or architectural motif. The subject property is a modest example of Ranch-style house displaying elements of the Swiss Miss architectural style. As such, the subject property does not meet local criterion H.

I. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning.

The subject property does not reflect significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning. The subject property was constructed as a model home in 1964, a period during which time post-World War II suburban residential development proliferated extensively in Highland and Southern California at large. As such, the subject property does not meet local criterion I.

J. It is one of the few remaining examples in the city, region, state, or nation possessing distinguishing characteristics of an architectural or historical type of specimen.

The subject property does not represent one of the few remaining examples in the city, region, state, or nation possessing distinctive characteristics of an architectural historical type of specimen. The subject property was a model home for identical homes that Lincoln Construction Company construction throughout the greater San Bernardino area. It is a typical example of a 1960s mass-produced builder-constructed residence. Further, the subject property has undergone significant alterations and therefore no longer possess distinctive characteristics of a type. As such, the subject property does not meet local criterion J.

5.5 Integrity Discussion

To qualify for listing in the NRHP or CRHR, a property must possess both significance and integrity. Additionally, since integrity is the ability of a property to convey its significance, the assessment of integrity can proceed only after the significance of the resource has been fully established. In the specific case of the subject property located at 26811 5th Street, the analysis determined that it lacked significance under any of the NRHP or CRHR criteria. As such, an integrity assessment was considered immaterial.

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6 Findings and Conclusions

6.1 Summary of Findings

Based on extensive archival research, an intensive-level field survey, and a significance evaluation, the subject property appears ineligible for NRHP, CRHR, or local listing, is it considered a historical resource for the purposes of CEQA. Findings are summarized below in Table 7.

Table 7. Historic Built Environment Findings

Address	Date Constructed	NRHP and CRHR	Previous CHRS code (if applicable)	Assigned California Historical Resource Status code	CEQA Finding
26811 5th Street, Highland, CA	1964	Not eligible	Not applicable	6Z: Found ineligible for NR, CR or local designation through survey evaluation	Not considered a historical resource for the purposes of CEQA

6.2 Conclusion

The subject property appears ineligible for listing at the local, state, and federal level. No historical resources were identified within the study area as a result of extensive archival research, an SCCIC records search, field survey, and property evaluations of significance. The subject property is not currently designated or listed under any national, state, or local landmark programs. The subject property has further not been designated locally as a result of any historical resource surveys.

Dudek evaluated the subject property in accordance with Section 15064.5 (a)(2)-(3) of California Environmental Quality Act (CEQA) Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. Dudek concludes that the building does not appear to be eligible for listing in the NRHP, CRHR, or for historical designation in the City of Highland due to a lack of significance. As such, the subject property does not appear to be a historical resource under CEQA. The recommended California Historical Resources Status Code for the subject property is 6Z: Found ineligible for NR, CR or Local designation through survey evaluation. The finding for built environment cultural resources for the proposed Project under CEQA is No Impact. As the proposed Project would have no impact on historical resources, no further study is required.

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Appendix A
Preparer's Qualifications

Monte Kim, Ph.D.

SENIOR ARCHITECTURAL HISTORIAN

Monte Kim (*he/him*) is a senior architectural historian and historic built environment resource specialist with over 20 years of professional experience in all phases of regulatory compliance under Section 106 and Section 110 of the National Historic Preservation Act (NHPA), Section 4(f) of the Department of Transportation Act, National Environmental Policy Act (NEPA), and California Environmental Quality Act (CEQA). He has experience in the inventory and evaluation of resources within the historic built environment, as well as the assessment of effects on historic properties and historical resources and has authored or co-authored nominations for the National Register of Historic Places and has overseen the documentation of historic properties in accordance with the standards required for the Historic American Building Survey (HABS), the Historic American Engineering Record (HAER), and the Historic American Landscape Survey (HALS). He has also developed and implemented resource-specific mitigation measures, treatment plans, protection plans, and interpretive plans for large, transportation-related projects, including the California High-Speed Rail Project. Additionally, he has experience consulting with State Historic Preservation Officers and developing programmatic agreements and memorandum of agreement documents for government agencies. Mr. Kim meets the Secretary of the Interior's Professional Qualification Standards for history and architectural history.



Education

University of California, Santa Barbara Ph.D., History, 2005

California State University, Sacramento MA, Public History, 1999

University of California, Santa Cruz BA, History, 1996

Professional Affiliations

California Preservation Foundation

Vernacular Architecture Forum

Transportation Research Board

Project Experience

Transportation – Roads, Bridges, Highways, and Rail

California High-Speed Rail Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS). Mr. Kim served as a lead planner responsible for reviewing the cultural resources, parks and recreation, and Section 4(f) chapters for the EIR/EIS prepared for six of the eight regional sections of the California High-Speed Rail Project. Additionally, he reviewed the supporting cultural resources technical reports (inventory, evaluation, and finding of effect reports), built environment treatment plans, as well as contributed to the drafting of four memorandum of agreement documents between the California High-Speed Rail Authority, California State Historic Preservation Officer, and the Surface Transportation Board, provided technical guidance to the Authority's regional consultants, and engaged with the State Historic Preservation Officer to obtain concurrences under Section 106 and Section 4(f). (2015-2022)

Historic Resources Inventory & Evaluation Report for the Stockton Diamond Grade Separation Project, Stockton, San Joaquin County, CA; Section 106 Finding of Effect Report for the Stockton Diamond Grade Separation Project; Environmental Assessment for the Stockton Diamond Grade Separation Project. For this project Mr. Kim served as a lead planner and technical reviewer for the California High-Speed Rail Authority. The documents were reviewed for compliance with Section 106, Section 4(f), NEPA, and CEQA. (2022).

Historic Resources Evaluation, Better Market Street Project, San Francisco, CA. For this project, Mr. Kim worked with the San Francisco Planning Department as an architectural historian and co-author of a technical report that evaluated a two-mile segment of Market Street for potential listing in the NRHP as a designated urban landscape associated with the work of noted landscape architect Lawrence Halprin and Modernist architects Mario Ciampi and John Carl Warnecke. (2014)

Water and Wastewater

Feather River CEQA/NEPA Compliance, Sutter Butte Flood Control Agency, Butte and Sutter Counties, California. The purpose of this project was to assist the Sutter Butte Flood Control Agency (SBFCA) through the Section 106 compliance and permitting process with ACOE to help facilitate construction improvements along a 40-mile segment of the Feather River Levee in Sutter and Butte Counties. As a project architectural historian, Mr. Kim assisted in the recordation, evaluation, and documentation of historic built environment resources located in the project APE in consultation with ACOE and SHPO in compliance with the Programmatic Agreement (PA) for this specific project. The survey work resulted in the identification of 99 historic-era resources within the APE, which required evaluation under NRHP Criteria. Of the resources inventoried, 17 resources were found to be eligible for the NRHP. Two of these resources are linear water conveyance/flood control structures; the Feather River Levee and the Sutter-Butte Canal. (2012–2015)

Southport Early Implementation Project Environmental Interim Preliminary Planning, West Sacramento Flood Control Agency/HDR Engineering, Yolo County, California. Served as a project architectural historian for the Southport Levee project in the City of West Sacramento. Conducted an intensive-level architectural/built environment survey of the project area. Prepared an inventory and evaluation report of resources identified as requiring evaluation under NRHP Criteria. In consultation with ACOE, SHPO, assisted in the preparation of a programmatic agreement and historic properties treatment plan to address cultural resources issues that may arise during project implementation. Cultural work was prepared according to guidelines set forth in the PA for compliance with Section 106. (2014–2015)

Knights Landing Outfall Gate Project, Cultural Resources Inventory and Evaluation Report, Reclamation District 108, Yolo County, California. Mr. Kim served as a project architectural historian for the Knights Landing Outfall Gate Project along the Sacramento River near the community of Knights Landing in Yolo County. Conducted an intensive-level architectural/built environment survey of the project area. Prepared an inventory and evaluation report of resources identified as requiring evaluation under NRHP and CRHR criteria. All work was completed in consultation with ACOE, Bureau of Reclamation, and SHPO. (2015)

Military

Comprehensive Historic Architectural Survey Update of Buildings and Structures at Naval Air Station Brunswick, Maine. Mr. Kim served as a project architectural historian for this project and prepared the inventory and evaluation report for the Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic, Norfolk, Virginia. Prepared an inventory and evaluation report of resources identified as requiring evaluation under NRHP criteria. All work was completed in consultation with NAVFAC Mid-Atlantic and SHPO. (2015)

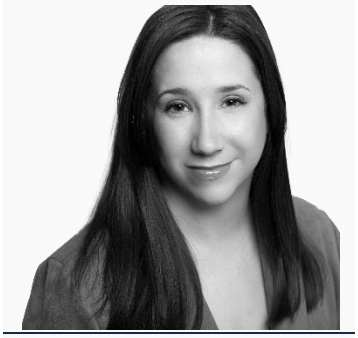
National Register Nominations

NRHP Nomination for the Stow House, Goleta, California. Conducted a site assessment and photographic documentation and assisted in the preparation of NRHP nomination forms for Goleta Valley Historical Society, Goleta California. (2000).

Claire Cancilla, MSHP

ARCHITECTURAL HISTORIAN

Claire Cancilla (KLAIR *Kan-sil-uh; she/her*) is an Architectural Historian with 5 years' professional and academic experience that encompasses a wide variety of project types in varied geographic locations, including Los Angeles, Laguna Beach, Agoura Hills, Baldwin Park, Glendale, Pasadena, South Pasadena, Poway, Riverside, San Diego, Rialto, Vista, Sequoia National Park, New York City, and Venice, Italy. She has completed historic significance evaluations and impacts analyses in consideration of the National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), and local designation criteria for single-family residences, commercial properties, educational institutions, warehouse and industrial properties, and municipal facilities. Additional project experience includes writing national register and local register nominations, conducting historic archival research, performing conditions assessments and reconnaissance surveys, conducting CEQA impacts analyses, preparing environmental impact report (EIR) sections, and conducting design reviews under the Secretary of the Interior's Standards. She meets the Secretary of the Interior's Professional Qualification Standards for Architectural History.



Education

Columbia University Graduate School of Architecture, Planning, and Preservation, MSHP, Historic Preservation, 2020

Occidental College BA, History, 2016

Dudek Project Experience

Skylight Replacement Project, Los Angeles Harbor Department (LAHD), San Pedro, California. Dudek is included on the Los Angeles Harbor Department's list of on-call historic consultants and was retained by the LAHD to conduct a Secretary of the Interior Standards conformance review for a skylight replacement project of four buildings located at the Port of Los Angles. This work involves updating previously completed Department of Parks and Recreation 523 forms for three properties and preparing new DPR forms for one property. This work further involves the review of schematics and plans for proposed skylight replacements for conformance with the Secretary of the Interior's Standards for Rehabilitation. Ms. Cancilla is the lead author of this ongoing work. (2023-present).

Berths 58-60 Secretary of the Interior Standards Conformance Review, Los Angeles Harbor Department (LAHD), San Pedro, California. Dudek was retained by the LAHD to conduct a Secretary of the Interior Standards conformance review for proposed alterations in anticipation of an adaptive reuse of Berths 58-60, a historical resource and former transit shed constructed in 1913 located on City Dock No. 1 at the Port of Los Angeles. Ms. Cancilla conducted the site visit with the property tenants, project architect, and LAHD representatives; reviewed plans and schematics; and conducted an analysis of all proposed alterations to ensure Rehabilitation. (2022).

Siemens Industrial Mixed Use Expansion Project, City of Pomona, Pomona, California. Dudek was retained by the City of Pomona to prepare a Built Environment Inventory and Evaluation Report for a proposed industrial expansion of a Siemens electrical manufacturing facility and warehouse. The existing warehouse and manufacturing facility was constructed in 1973. Ms. Cancilla was the lead author of the report and conducted the fieldwork; research; and evaluation of the property for significance at the national, state, and local level. (2022).

Vista Old Taylor Project, TTLC Management Inc., Vista, California. Dudek was retained by TTLC Management Inc. to prepare a Built Environment Inventory and Evaluation Report for a proposed residential development project. This work involved the recordation and evaluation of two single-family residential properties constructed in the 1940s and 1950s. Ms. Cancilla is the lead author of the BEIR, conducted fieldwork, and prepared the property significance evaluations under national, state, and local eligibility criteria (2022 – 2023).

Alice / Willow Avenue Warehouse Project, Patriot Development Partners, Rialto, California. Dudek was retained by Patriot Development Partners to conduct a Built Environment Inventory and Evaluation Report for a 6.19-acre site in the city of Rialto, California. Ms. Cancilla was the lead author of the BEIR, which involved research on and evaluation of six light industrial and commercial buildings over 45 years of age. (2022 – 2023).

Kaiser Baldwin Park Medical Center Project, Top Commercial Realty, Baldwin Park California. Dudek was retained to complete a Built Environment Inventory and Evaluation Report for a proposed project involving the development of the Kaiser Baldwin Park Medical Center. Ms. Cancilla was the lead author of the Built Environment Inventory and Evaluation Report for a 1970s vernacular commercial building. (2022).

Arlington Avenue Historic Resources Technical Report, Foulger Pratt, Riverside, California. Dudek was retained to complete a Historic Resources Technical Report on a Mid-Century Modern former Sears Department Store in the city of Riverside, California for a proposed redevelopment. Ms. Cancilla contributed to the significance evaluation and historic contexts for the technical report. (2022).

Oak Knoll Road, Poway, San Diego County, California. Dudek was retained to complete a historical resources evaluation for a residential development project in the City of Poway. The Project proposes the development of the 10.72-acre property into a residential development within an existing residential neighborhood. As an architectural historian, Ms. Cancilla contributed to the significance evaluation and historic contexts for the technical report. (2022)

2121 Orange Street Built Environment Inventory and Evaluation Report, Alhambra, California. Dudek was retained to complete a Built Environment Inventory and Evaluation Report for a proposed self-storage redevelopment in the City of Alhambra. The Project proposes the demolition of an existing office building and warehouse in 1974. As an architectural historian, Ms. Cancilla conducted the fieldwork, research, and evaluation for the property. (2022).

4235 State Street Historic Resources Technical Report, Santa Barbara County, California. Dudek was retained to prepare a Historic Resources Technical Report evaluating the significance of a prefabricated gas station constructed in 1953 in unincorporated Santa Barbara County for a proposed redevelopment. As an architectural historian, Ms. Cancilla conducted the fieldwork, research, and evaluation for the property. (2022).

Los Angeles County Metro Area Plan Project, Los Angeles County, California. Dudek was retained by the County of Los Angeles Department of Regional Planning to prepare a Historic Context Statement (HCS) in support of the Metro Area Plan (MAP) project. The goal of the HCS component of the project is to inform, enhance, and streamline the larger MAP project as it pertains to historical resources. The communities included within the MAP HCS include East Los Angeles, East Rancho Dominguez, Florence–Firestone, Walnut Park, West Athens–Westmont, West Rancho Dominguez–Victoria, and Willowbrook. The HCS documents the development history of the communities from the rancho period to the present; identifies important themes, events, and patterns of development; and describes the different property types, styles, builders, and architects associated with these important periods and themes. The document will also provide registration requirements and recommendations for future study/action by the County of Los Angeles to facilitate and streamline the historic preservation program. Responsibilities include report section preparation and archival research. (2022)

Katie Ahmanson, MA

ARCHITECTURAL HISTORIAN

Katie Ahmanson (*KAY-tee AH-mun-son; she/her*) is an architectural historian with 2 years of experience in the field of architectural history and heritage conservation. She has experience with Historic-Cultural Monument and National Register of Historic Places (NRHP) nominations, historic context statements, building descriptions, and California Department of Parks and Recreation (DPR) 523 forms. Ms. Ahmanson has familiarity with environmental compliance documentation in support of projects that fall under the California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA), and Sections 106 and 110 of the National Historic Preservation Act.



Education

University of Southern California School of Architecture
MA, Heritage Conservation, 2022

Claremont McKenna College
BA, Art History, 2019

Project Experience

9065 and 9061 Nemo Street, Carlyle Group Inc., West Hollywood, Los Angeles County, California. Dudek was retained by Carlyle Group Inc. to complete a Historical Resource Assessment (HRA) to identify all historical resources (if any) on the subject properties. The purpose of this report is to determine if the subject properties at 9065 Nemo Street (APN: 4340-013-005) and 9061 Nemo Street (APN: 4340-013-006) in the West Hollywood, Los Angeles County, California, would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research for the project. (2022)

517 I Avenue, City of Coronado, San Diego County, California. Dudek was retained by the City of Coronado to evaluate the property located at 517 I Avenue (APN: 536-351-04-00) (subject property) for historical significance under City of Coronado designation criteria and integrity requirements. The evaluation involved research and development of an occupancy timeline, supplemental research on occupants and building development, survey of the property, a description of the property, and completion of a historical resource evaluation in consideration of City of Coronado designation criteria and integrity requirements. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, and completed archival research for the project. (2022)

1222 Brunswick, City of South Pasadena, Los Angeles County, California. Dudek was retained by the City of South Pasadena to complete a historic resource evaluation for a single-family residential property built in 1946 and located at 1222 Brunswick Avenue in South Pasadena, California. As part of this study, Dudek completed archival and building development research, occupancy research, and an intensive-level survey of the subject property and recorded and evaluated the property for historical significance and integrity on the local, state, and national levels. The purpose of this report is to determine if the subject property would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research for the project. (2022)

743 B Avenue, City of Coronado, San Diego County, California. Dudek was retained by the City of Coronado to evaluate the property located 743 B Avenue (APN: 537-101-07-00) (subject property) for historical significance

under City of Coronado designation criteria and integrity requirements. The evaluation involved research and development of an occupancy timeline, supplemental research on occupants and building development, survey of the property, a description of the property, and completion of a historical resource evaluation in consideration of City of Coronado designation criteria and integrity requirements. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, and completed archival research for the project. (2022)

925 Ninth Street, City of Coronado, San Diego County, California. Dudek was retained by the City of Coronado to evaluate the property located 925 Ninth Street (APN: 350-370-12-00) (subject property) for historical significance under City of Coronado designation criteria and integrity requirements. The evaluation involved research and development of an occupancy timeline, supplemental research on occupants and building development, survey of the property, a description of the property, and completion of a historical resource evaluation in consideration of City of Coronado designation criteria and integrity requirements. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, and completed archival research for the project. (2022)

Tooley Carlsbad, Atlantis Group Land Use Consultants, Carlsbad, San Diego County, California. Dudek was retained by Atlantis Group Land Use Consultants to complete a historical resources technical report (HRTR) to identify all historical resources (if any) on the subject property. The purpose of this report is to determine if the subject property at 945-1065 Carlsbad Village Drive (APN: 203-320-53-00-203-320-56-00) in the City of Carlsbad, San Diego County, California, would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote significance evaluations, and completed archival research for the project. (2022)

1402 Broadway, Baldwin & Sons, Chula Vista, San Diego County, California. Dudek was retained by Baldwin & Sons to complete a HRTR to identify all historical resources (if any) on the subject property. The purpose of this report is to determine if the subject property at 1402 Broadway (APN: 622-041-27-00) in the City of Chula Vista, San Diego County, California, would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research for the project. (2022)

1027 Olive Avenue and 1029 Olive Lane, City of Coronado, San Diego County, California. Dudek was retained by the City of Coronado to evaluate the property located at 1027 Olive Avenue and 1029 Olive Lane (APN: 537-412-01-00) (subject property) for historical significance under City of Coronado designation criteria and integrity requirements. The evaluation involved research and development of an occupancy timeline, supplemental research on occupants and building development, survey of the property, a description of the property, and completion of a historical resource evaluation in consideration of City of Coronado designation criteria and integrity requirements. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research for the project. (2022)

335 Alameda Boulevard Historical Resources Evaluation Report, City of Coronado, San Diego County, California
Dudek was retained by the City of Coronado to evaluate the property located at 335 Alameda Boulevard (APN: 536-191-05-00) for historical significance under City of Coronado designation criteria and integrity requirements. The evaluation involved research and development of an occupancy timeline, supplemental research on occupants and building development, survey of the property, a description of the property, and completion of a historical resource evaluation in consideration of City of Coronado designation criteria and integrity requirements. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research for the project. (2022)

4235 State Street, Flowers & Associates, Santa Barbara, California. Dudek was retained by the firm of Flowers & Associates to complete a HRTR for the property and associated sign located at 4235 State Street, Santa Barbara, California. This report evaluates the subject property (APN: 061-100-006), a former gas station originally constructed in 1959 (Building Permits), and its associated historic-age sign in anticipation of a proposed redevelopment project. As an architectural historian, completed an analysis of historic aerial photographs and Sanborn maps for the project. (2022)

Clara Oaks, City of Claremont, California. Dudek was retained by the City of Claremont to prepare a built environment inventory and evaluation report for The Webb Schools (AIN: 8669-015-014) as part of the Clara Oaks environmental impact report. This report documents Dudek's efforts to identify and update the previous evaluation for The Webb Schools' campus for eligibility as a historic district at the federal, state, and local level and identify potential direct or indirect impacts under CEQA as a result of construction and implementation of the proposed project. As an architectural historian, completed an analysis of historic aerial photographs and Sanborn maps for the project. (2022)

820 G Avenue Historical Resource Evaluation Report, City of Coronado, San Diego County, California. Dudek was retained by the City of Coronado to evaluate the property located at 820 G Avenue (APN: 537-222-26-00) for historical significance under City of Coronado designation criteria and integrity requirements. The evaluation involved research and development of an occupancy timeline, supplemental research on occupants and building development, survey of the property, a description of the property, and completion of a historical resource evaluation in consideration of City of Coronado designation criteria and integrity requirements. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, and completed archival research for the project. (2022)

Gaujome Crest Built Environment Inventory and Evaluation Report, Ricon Homes, Oceanside, San Diego County, California. Dudek was retained by Ricon Homes to prepare a built environment inventory and evaluation report for the proposed Gaujome Crest Project in the City of Oceanside. The goal of the project is to identify and evaluate historic-age built environment resources located within the project site that may be subjected to direct or indirect impacts from the proposed project. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, and completed archival research for the project. (2022)

Los Angeles County Florence-Firestone Community Plan Area Historic Resources Survey, Los Angeles County Department of Regional Planning, California. Dudek was retained by the County of Los Angeles Department of Regional Planning to prepare a historic context statement and conduct a historic resources survey for the Community Plan Area of Florence-Firestone. The goal of the project is to document the development history of the community from the rancho period to the present; identify important themes, events, and patterns of development; and describe the different property types, styles, builders, and architects associated with these important periods and themes. The document will also provide registration requirements and recommendations for future study/action by the County of Los Angeles to facilitate and streamline the historic preservation program. As an architectural historian, completed field work and contributed to a historic resources survey report. (2022)

Harmon Ranch, Poway, San Diego County, California. Dudek was retained to complete a built environment inventory and evaluation report for a residential development project in the City of Poway. The project proposes the development of the 10.72-acre property into a residential development within an existing residential neighborhood. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, and completed archival research for the project. (2022)

Relevant Previous Experience

Preservation Intern, Hollywood Heritage, Hollywood, California. As an intern, managed general office administrative work, maintained and regularly updated the Preservation Sub-Committee to-do and watch lists, set the weekly Admin meeting and monthly Preservation Committee meeting and agendas, and recorded the meeting minutes. Additionally, organized developer and resident meetings, monitored and tracked relevant public hearings and schedules for Hollywood Heritage issues, and attended public hearings and meetings on behalf of Hollywood Heritage. Assisted residents and concerned parties seeking to designate historic resources and helped prepare nominations for city, state, and national designations, such as the Historic Cultural Monument nomination for the Home Savings and Loans on 1500 Vine Street in Hollywood, which passed as a designated monument June 2, 2022. (2021–2022)

Architecture Research Assistant, SPF: Architects, Culver City, California. As a research assistant, researched and collected information about projects and wrote for the company website. In addition, organized content about past and ongoing projects, digitally archived old plans and documents, organized contact lists, and composed press releases for new projects and firm announcements. Aided in making architecture models and model accessories. (2019–2020)

Intern, Frederick Fisher and Partners, Los Angeles, California. As the office intern, archived old plans and documents and scanned documents and digitally archived published materials. In addition, worked with the marketing team to organize contact lists and research competing firms. Also assisted the front desk with answering the phone, welcoming guests, and office cleanup and organization. (2018)

Appendix B

DPR Forms for 26811 5TH Street

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings_____
Review Code Reviewer Date

Page 1 **of** 21 ***Resource Name or #:** (Assigned by recorder) 26811 5th Street
P1. Other Identifier:_____

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**
- ***a. County** San Bernardino **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
- **b. USGS 7.5' Quad** Redlands **Date** 2013 **T** 1S; **R** 3W; **of** **of Sec** 5; Redlands **B.M.**
- c. Address 26811 5th Street City Highland Zip 92346
- d. UTM: (Give more than one for large and/or linear resources) Zone 11N, 479780 mE/ 3774182 mN
- e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
  APN 1192-561-04

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The subject property at 26811 5th Street (APN: 1192-561-04) is bounded by Central Avenue to the east, East Third Street to the south, Victoria Avenue to the west, and West Fifth Street to the north. The property is located approximately 1.2-miles west of I-210. The property contains one single-family residence constructed in 1964 (Exhibit 1 on continuation sheet), with a detached garage to rear of the residence. The primary (north) elevation is oriented towards 5th Street and is fronted by a brick planter and lawn that is enclosed with a chain-link fence. An asphalt driveway from 5th Street leads to the rear of the house, and a concrete pedestrian walkway accessed by a chain-link gate from driveway leads to the primary (north) elevation of the residence. [See Continuation Sheet]

***P3b. Resource Attributes:** (List attributes and codes) HP2. Single Family Property

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



***P4. Resources Present:** ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

***P5b.** Description of Photo: (view, date, accession #) Primary (north) elevation of the subject property, view to the south (5/18/2023)

***P6.Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both
1964 (San Bernardino County Assessor)

***P7. Owner and Address:**
Patriot 5th & Central LLC
116 Nob Avenue
Del Mar, CA 92014

***P8. Recorded by:** (Name, affiliation, and address)
Claire Cancilla, MSHP
Dudek, 38 N Marengo Avenue
Pasadena, CA 91101

***P9. Date Recorded:** 5/17/2023

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Dudek. 2023. Built Environment Inventory and Evaluation Report: 5th and Central Warehouse Project, Highland CA. Prepared May 2023.

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ■Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record

State of California - The Resources Agency Primary # _____
DEPARTMENT OF PARKS AND RECREATION HRI# _____

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) 21101 Avalon Boulevard/Property D1 ***NRHP Status Code** 6Z

B1. Historic Name: N/A
B2. Common Name: N/A
B3. Original Use: Single family residence/model home and garage B4. Present Use: Vacant
***B5. Architectural Style:** Ranch style with Swiss Miss influences
***B6. Construction History:** (Construction date, alterations, and date of alterations)

See **Continuation Sheet** for a list of alterations based on observation and archival research.

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** _____ **Original Location:** _____
***B8. Related Features:**

N/A

B9a. Architect: N/A b. Builder: Lincoln Construction Company
***B10. Significance:** N/A **Area** N/A
Period of Significance N/A **Property Type** Residential **Applicable Criteria** N/A (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Significance summary

As a result of Dudek's archival research, field survey, record search, and property significance evaluations, the subject property at 26811 5th Street is recommended ineligible for the NRHP or CRHR due to a lack of significant historical associations and architectural merit. Therefore, the subject property is not considered a historical resource for the purposes of CEQA. The recommended status code is 6Z: Found ineligible for NR, CR or Local designation through survey evaluation. [See Continuation Sheet]

B11. Additional Resource Attributes: (List attributes and codes) N/A

***B12. References:**

See **Continuation Sheet** for full list of references.

B13. Remarks:

***B14. Evaluator:** Claire Cancilla, MSHP
***Date of Evaluation:** 5/17/2023

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

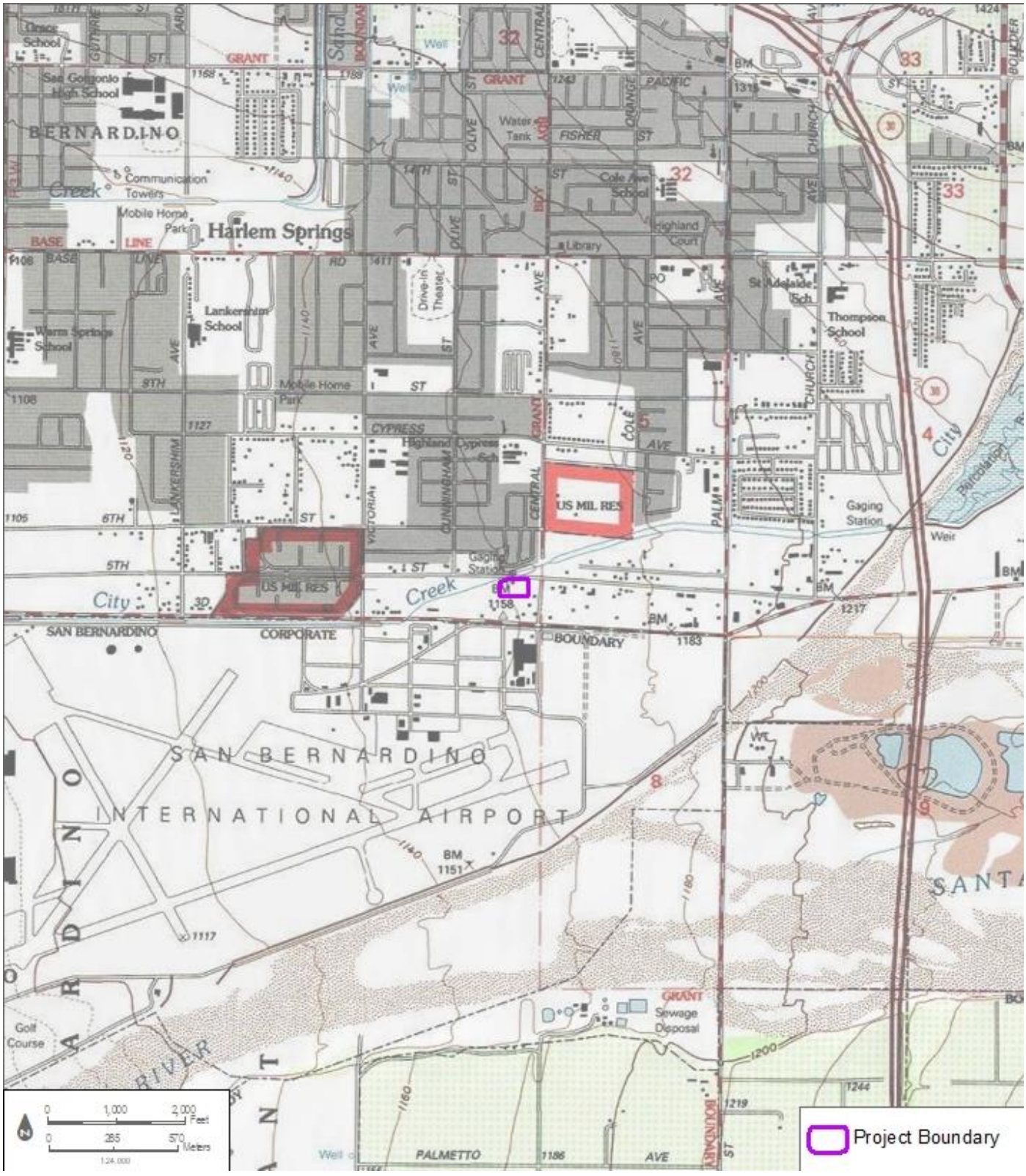
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

Page 3 **of** 21
***Map Name:** Redlands

***Resource Name or #** (Assigned by recorder) 26811 5th Street
***Scale:** 1:24,000 ***Date of map:** 2013



***P3a. Description:**

A metal bar gate separates the front of the property from the rear. The rear of the property is enclosed by a vertical wood board and contains a lawn as well as a concrete patio along the rear (south) elevation of the residence and east elevation of the garage.

The subject property is a single-story, Ranch-style residence with Swiss Miss architectural influences. It has an irregular plan with a composition tile, cross-hipped roof with open eaves and exposed rafters (Exhibits 2-4). The primary (north) elevation also features a prominent front-facing A-frame gable with decorative bargeboard that is supported by wood posts. The building is primarily clad with smooth stucco, and features metal board and batten and brick siding beneath the front gable on the primary (north) elevation. The entrance is recessed on the primary (north) elevation and contains a partially-glazed, double door. A secondary entrance featuring a sliding door is located on the south elevation of the projecting volume on the primary (north) elevation. Fenestration consists of ungrouped vinyl sash, sliding windows and casement windows.

The garage (Exhibit 5) is located to the south of the subject property and has a rectilinear footprint with a gable roof clad in composition tile and featuring open eaves and exposed rafters. The primary (east) elevation has two roll-up garage doors. there is a one-story L-shaped addition clad in wood siding that extends from the garage's south elevation. The parcel on which the subject property sits also has a freestanding short flight of brick stairs with a metal handrail and a concrete pad located on the east elevation (Exhibit 6).

Exhibit 1. Primary (north) elevation of the subject property, view to the south



Source: Dudek

Exhibit 2. East elevation of the subject property, view to the southwest



Source: Dudek

Exhibit 3. Oblique view of the south and east elevations, view to the northwest



Source: Dudek

Exhibit 4. West elevation of the subject property, view to the southeast



Source: Dudek

Exhibit 5. East elevation of the subject property's garage, view to the west



Source: Dudek

Exhibit 6. Freestanding flight of brick stairs and concrete pad located along the eastern edge of the subject property's parcel, view to the southeast



***B6. Construction History** *(continued from page 2):*

Table 1 includes all known alterations to the subject property. This table was compiled through archival research of City of Highland building permits provided via the City Clerk's Office. The City of Highland provided only one building permit for the subject property; this research did not identify an original building permit for the subject property.

Table 1. Building Permits for 26811 5th Street, Highland California

Date	Address	Permit Number	Description of Work	Owner	Architect (A)/ Engineer (E)/ Contractor (C)	Valuation
2/11/1997	26811 5th Street	11807	Tear off and re-roof with composition tiles	Dewitt Diller	E.J Jure Roofing (C)	None listed

In addition to the identified alterations from building permits, Dudek observed the following alterations based on physical survey of the subject property and comparative analysis between current photographs of the subject property and advertisements of the property as a model home published shortly after its construction in 1965 (Exhibits 3 and 4 in Section 4.4). The dates of these alterations are unknown:

- Replacement windows
- Replacement doors
- Removal of shutters
- Garage door infill with stucco and a sliding door

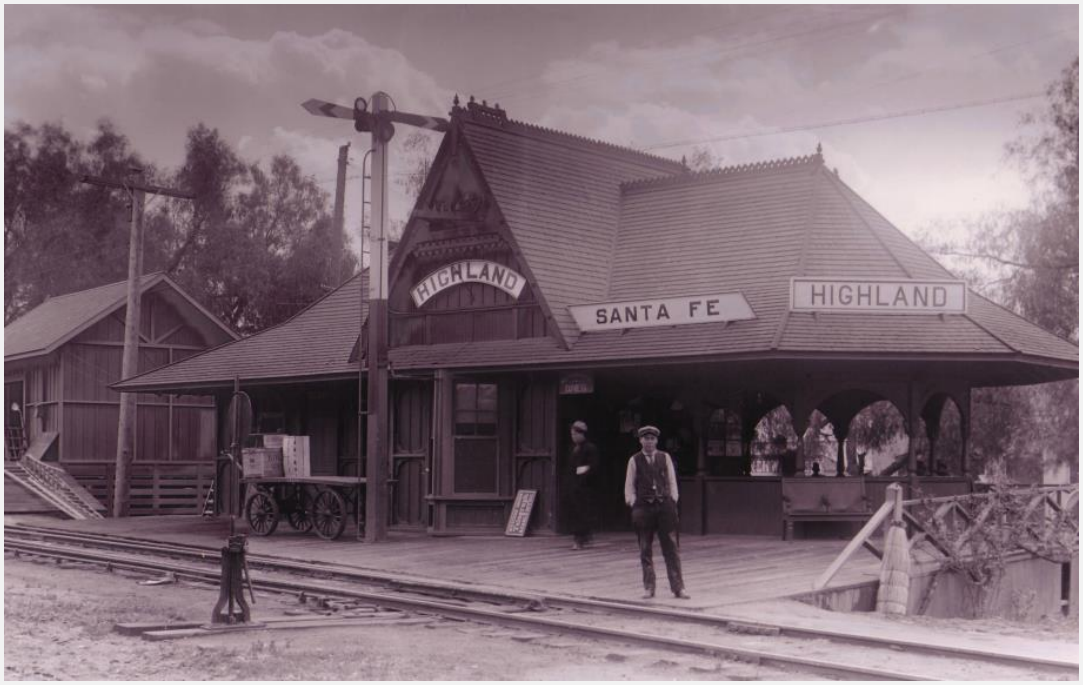
***B10. Significance** *(continued from page 2):*

Historical Overview of the City of Highland

Highland's settlement began in 1856 when John Henry Cram and six of his eight sons established a settlement known as Cramville, located in the northeastern area of The Village Lakes subdivision at 5th and Orange Streets. Cram and his family were the first known white settlers in the area. Cram and fellow settler Frederick Van Leuven constructed a ditch in 1858 to bring water from the Santa Ana River to their lands in East Highland. The ditch ran from City Creek into the present site of Highland. In 1857, Henry Rabel, a German immigrant, purchased forty acres along what is now Base Line Street, west of Victoria Avenue. Rabel purchased 80 additional acres in 1859, which became Rabel Springs, named for the large pond and natural thermal wells located on the land. Rabel capitalized on the medicinal quality of the springs and constructed bathhouses and an eleven-room hotel for tourists. The area became popular as a recreation spot and in 1887 Harlem Springs was developed east of Victoria Avenue. Harlem Springs included a swimming pool, bathhouses, an entertainment hall, and picnic grounds. This led to multiple civic improvements including the area's first county road in 1860, Santa Ana Canyon Road (now West 5th Street) (Beattie 1994, 2004; SBPL 2021).

The area that became Highland was developed as separate settlements. This included Messina in 1873 at Base Line and Palm Avenues. Messina's location was approximately the midpoint of the emerging towns and as a result, became the commercial center. Buildings were constructed for private businesses, soon followed by a Post Office and grocery store. The first school district was formed in Cram in 1869 and with its rising population, Messina formed a district named Highland soon after. This was the first formal use of the name Highland. Prior to this, the whole area was referred to as the Highlands because of the altitude and proximity to the San Bernardino Mountain foothills. In 1885, the Santa Fe Railroad (California Southern Railway) constructed a new line through the Cajon Pass, connecting San Bernardino to the rest of the state. Rail line expansion began soon after with prominent men in Redlands raising $42,750 to purchase rights-of-way and depot grounds connecting San Bernardino to Redlands, which was soon expanded to Mentone. Local railroad officials thought a loop from Mentone back to San Bernardino would be most efficient by way of present-day Highland. Though not officially incorporated as the city, the name Highland was used for the train depot and became the preferred identifier for the community. In January 1892, the loop of the "Kite Shaped Track" was finished as a 158-mile-long figure eight from the Santa Fe yards in Los Angeles east to Mentone and back (Exhibit 7). The line offered both freight and passenger services and opened San Bernardino County to more land development and settlement (Beattie 1994, 2004).

Exhibit 7. The first Highland Depot, built in 1891, circa 1910



Source: Photo from the collection of Mark Landis, The Sun

The presence of the railroad not only brought more people to the area but new industries and commercial opportunities as well. By the early 1880s agriculture development was increasing with the planting of citrus orchards throughout Highland and San Bernardino County. Citrus was considered a high-value crop and required well-drained upland soils. This led to the construction of the North Fork Ditch in 1881, which diverged from the Cram and Van Leuven Ditch and ran west along the mountains. The dependable water supply stimulated agricultural development and production. Citrus groves were present in the area starting in 1857, but it was not until the Washington navel orange was introduced in 1873 that it became the leading industry. Between 1881 and 1892, over a thousand acres of citrus were planted in Highland (Exhibit 8). The railroad also brought the fruit packing and lumber industries to the area, while the area remained dependent on the citrus industry (McAvoy 2000).

Exhibit 8. East Highlands Citrus Association, Highland Grove Brand label, circa 1900-1940



Source: UC Riverside Special Collections and University Archives

At the turn-of-the-century, Highland's growth had accelerated with the construction of a library, community hall, packing houses, a new business building on Palm Avenue, and many new residences. Highland and downtown San Bernardino were connected in 1903 with the establishment of the Bernardino Valley Traction Company's electric railway line. The local economy remained dependent on the citrus industry and as a result, fluctuated based on how well the industry did. In 1913, a freeze hit Southern California killing many citrus trees and resulting in an economic standstill for several years (Beattie 1994, 2004; McAvoy 2000)..

The 1920s brought multiple changes to the town, including the construction of more packing houses and the Zimmerman Addition, which added the area north of the Santa Fe right-of-way to the city boundary. A series of disasters hit the area in the 1930s including multiple fires, which destroyed packing houses and the Highland Orange Association building. Highland's identity as a closely-knit citrus community began to change due to outside influences. The popularity of the automobile led to fewer people utilizing the railroads for passenger travel. In July 1936, Pacific Electric discontinued passenger service on the Highland branch line (McAvoy 2000).

The 1940s brought a period of change to the area, including suburbanization with citrus groves being replaced by housing tracts. As the United States entered World War II, the U.S. Army Air Corps established a training center just south of the City in 1941. Following the attack on Pearl Harbor, the training center's role shifted to being a fighter plane mobilization point to defend the City of Los Angeles in the event of an attack. In 1942, the training center was named San Bernardino Army Airfield. After the war, in 1950, it was renamed Norton Air Force Base (Beattie 1994, 2004; McAvoy 2000)..

After World War II, a postwar population boom affected not only Highland but much of the Los Angeles Basin, resulting in citrus packing houses closing because of losing their supporting orchards to suburban development. Packing houses were converted to light industrial uses as housing tracks replaced the groves. The Pacific Electrical Railway discontinued service in 1953 resulting in the removal of its tracks. The Santa Fe Railroad soon followed with the abandonment of its Highland line in the early 1980s. Residential development in present-day Highland accelerated in this period, as formerly agricultural land became subdivided for single-family residences. The population of the area continued to accelerate in subsequent decades, contributing to the city's eventual incorporation at the end of the 1980s (Beattie 1994, 2004; McAvoy 2000).

The City of Highland was officially incorporated in 1987. The Highland Chamber of Commerce in the 1980s pushed for the formation of the City of Highland, which was incorporated on November 24, 1987. The City included 32,300 acres with a population of approximately 34,439 in 1990. In 1994, San Bernardino Army Airfield closed and was redeveloped into the San Bernardino International Airport. By 2000, Highland had been transformed from a small agrarian society to a city surrounded by a large urban area. The City's population in 2010 was recorded at 53,104 a nineteen percent increase from 2000. The City is generally divided into two regions, East Highland and Highland divided by State Route 210, and remains a blend of old and new (Beattie 1994, 2004; McAvoy 2000).

Ranch Style (1935-1975)

Ranch-style houses in California reflect a national trend of fascination with the "Old West" and were a building style of choice for tract housing. Ranch homes were originally developed in the western and southwestern United States, but quickly gained national popularity through the dissemination of do-it-yourself manuals and plans in national magazines such as *Sunset, Better Homes And Gardens,* and *House Beautiful.* Later, Ranch houses were popular as a custom-built type of housing, which was especially common in the later 1940s and 1950s. During the 1940s, the style was one of the few built under Federal Housing Administration financing guidelines. Ranch houses built in the 1940s were smaller in size than later versions after builders lobbied for higher loan limits and Federal Housing Administration guidelines were revised in the 1950s. In many California cities, examples of the style were abundant as it became the most prevalent type of post-World War II suburban tract-style housing (McAlester 2013; City of San Diego 2007).

Ranch style houses are usually a one-story, single-family residence. Houses designed in this architectural style include several identifying characteristics such as rambling, elongated plans; a horizontal emphasis; general asymmetry; free-flowing interior spaces; and a designed connection to the outdoors. Features such as low-pitched roofs with wide eaves, a combination of cladding materials including board-and-batten siding, brick and stone chimneys, and large picture windows were commonly applied and evoked an aesthetic that was reminiscent of these past architectural traditions. Decorative features such as wood shutters and dovecotes were often added to enhance the rusticated appearance of Ranch houses (Grimes and Chiang 2009; Horak et.al. 2015).

The subject property further displays elements of the Mid-century modern "Swiss Miss" style that was popularized by architect Charles Dubois in Palm Springs. Dubois' Swiss Miss homes were concentrated in the Vista Las Palmas neighborhood of Palm Springs Residences. Residences designed in the Swiss Miss style are typically low-lying, one-story residences with dramatic A-frame roofs rising from the ground and spanning the width of the building's primary elevation. The style is also characterized by its shingled gabled roof. Although the subject building represents a modest example of Dubois' high-style residences, it features a prominent front-facing, A-frame gable characteristic of the style (Gibson 2018).

Character-defining features of the Ranch style include:

- Rambling, elongated plans with a horizontal emphasis
- One to two stories in height
- Low-pitched gabled or hipped roofs with overhanging, open eaves
- General asymmetry
- Free-flowing interior spaces
- Designed connection to the outdoors
- Cladding featuring stucco, board and batten, shingles, clapboard, or a combination of materials
- Brick or stone chimneys details
- Attached garages often linked to residence by breezeways
- Stone, brick, board and batten, clapboard, or horizontal wood siding used for accent on walls, secondary cladding types, and planters
- Functional and non-functional shutters details as trim around windows
- Fenestration may include a picture window

Property History

Since its construction in 1964, the subject property has been a single-family residence. It was originally constructed as a model home in the "Forty Niner" style for the Lincoln Construction Company, a building company based in San Bernardino that specialized in custom-built homes and was owned by builder, contractor, and real estate broker DeWitt Dillard. Until 2023, the subject property was owned by the Dillard family. Prior to its construction, the parcel on which the subject property sits was undeveloped.

Ownership / Occupancy History

Table 2 below includes known owners and occupants of 26811 5th Street. The subject property was built in 1964 by the Lincoln Construction Company, founded by Dewitt Dillard, as a model home for potential buyers to visit prior to purchasing a home of their own. Until 2023, the subject property was owned by the Lincoln Construction Company or the Dillard family. Research did not reveal that any of the subject property's owners or occupants are persons important to our past.

Table 2. Ownership/Occupancy History of 26811 5th Street, Highland, California

Year	Owner	Notes	Source
1965 – circa 1997	Lincoln Construction Company/Dewitt Dillard	The subject property was constructed as a model home for the Lincoln Construction Company and was used to show potential buyers' a typical blueprint.	San Bernardino County Sun 1965b: 73
At least 1997 - 2015	Loyce C. and Dewitt Dillard	Dewitt Dillard was the owner of the Lincoln Construction Company. He died in 2010. Loyce Dillard was married to Dewitt Dillard.	San Bernardino County PIMS* Building Permits San Bernardino County Sun 2010
2015-2023	Dillard House Trust	Trust of the Dillard family	San Bernardino County PIMS*

Year	Owner	Notes	Source
2023- present	Patriot 5th and Central LLC	Real estate development company	San Bernardino County PIMS*

*The San Bernardino County Property Information Management System can be accessed via: http://www.sbcounty.gov/assessor/pims/PIMSINTERFACE.ASPX.

Builder: Lincoln Construction Company/Dewitt Dillard

The subject property was built by Lincoln Construction Company as a model home. The Lincoln Construction Company was a contracting and building company active in the San Bernardino area in the mid-20th century. The company was founded by Dewitt Dillard in 1963. DeWitt Dillard, who owned the subject property, reportedly owned the Lincoln Construction for more than 47 years. He was born in Big Springs, Texas in 1924. While in California, Dillard worked as a broker, in addition to the sales and construction work he did at the Lincoln Construction Company. Dewitt Dillard's brother, Chip "Muddy" Dillard, also worked at the Lincoln Construction Company until he moved back to Texas in 1984. Dewitt Dillard was married to Loyce Dillard and the couple had four children. Dillard died in 2010 (San Bernardino County Sun 2010; San Bernardino County Sun 1967: 62; Abilene Reporter-News 2001: 41).

The Lincoln Construction Company specialized in custom-built homes, which allowed buyers to select from several pre-designed floor plans sold at a base cost with the possibility of adding on additional features for additional fees. This style of home construction proliferated after World War II and allowed for quick and inexpensive construction of single-family homes using prefabricated components (California Department of Transportation 2011: 58).

In the 1960s, the Lincoln Construction Company had an office at 888 E. Highland Avenue in San Bernardino. In addition to the subject property, research identified several other projects constructed by the Lincoln Construction Company, including a residence on Vickey Way in Yucaipa, CA. In 1966, the company was selected to construct four handball courts at San Bernardino municipal parks. These arks were: Gateway, Encanto, Lytle Creek, and the Meadowbrook Recreation Center. Advertisements from the business (San Bernardino County Sun 1966: 19; Redlands Daily Facts 1963: 6).

According to promotional material associated with the subject property and Lincoln Construction Company (Exhibits 9 and 10), Lincoln Construction Company developed 30 floor plans that customers could select from and have the company construct on an empty lot for a total cost of between $9,250 and $10,500. The subject property was called the "Forty-Niner" model. Other models promoted by the company included the "Hawaiian," the "El Dorado," and the "Californian" (San Bernardino County Sun 1965a: 77; San Bernardino County Sun 1965b: 73).

Exhibit 9. Advertisement from 1965 for Lincoln Construction Company. The subject property was built as a model home for the company to persuade potential buyers to purchase a home built by the company.



Source: San Bernardino County Sun 1965b: 73

Exhibit 10. Advertisement from 1965 for Lincoln Construction Company showing the subject property as a model home and noting the various floor plans available from the company.



Source: San Bernardino County Sun 1965a: 77

NRHP/CRHR/City of Vista Evaluation of Significance

The property at 26811 5th Street does not meet any of the criteria for individual listing in the NRHP or the CRHR or as part of an existing historic district, as demonstrated below.

NRHP/CRHR Criterion A/1: *That are associated with events that have made a significant contribution to the broad patterns of our history.*

To be eligible for listing in the National Register under Criterion A, a property must be associated with events that have made a significant contribution to the broad patterns of our history. The subject property was constructed as a model home in 1964 by the Lincoln Construction Company, a building company active in San Bernardino from 1963 until 2010. The subject property was one of several floor plans sold by the Lincoln Construction Company (San Bernardino County Sun 1965a: 77; San Bernardino County Sun 1965b: 73; San Bernardino County Sun 2010). While construction is an important industry, there is no indication that the Lincoln Construction Company was a particularly innovative or significant businesses either regionally or nationwide.

National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation states that "mere association with historic events or trends is not enough, in and of itself, to qualify under Criterion A: the property's specific association must be considered important as well" (USDOI 1995: 12). Archival research did not find that the subject property is associated with any events that have made a significant contribution to the broad patterns of history.

The subject property was constructed in 1964, during a period of intensive post-world War II single-family residential development that proliferated throughout Southern California and present-day Highland from 1945 to approximately 1980 (California Department of Transportation 2011: 58). Historic aerial photographs indicate that residential development in the surrounding area appears to have slowly increased throughout the late 1960s until the mid-1980s (NETR 2023; UCSB 2023). While the subject property was part of this general trend of postwar residential development and as a model home was purpose-built to encourage more residential development, there is no indication that the construction of the subject property is associated with a pivotal movement in the history of the neighborhood or city. It was neither the first nor the last of its type and merely followed a continuous pattern of postwar residential development.

The subject property is also not known to be directly associated with any events that have made a significant contribution to the history of the City of Industry, California, or the United States and, therefore, the subject property does not appear eligible under NRHP Criterion A or CRHR Criterion 1.

NRHP/CRHR Criterion B/2: *That are associated with the lives of persons significant in our past.*

To be found eligible under NRHP Criterion B or CRHR Criterion 2 the property must be directly tied to an important person and the place where that individual conducted or produced the work for which he or she is known. Archival research did not indicate any such direct association between the subject property and individuals that are known to be historic figures at the national or state, level. The subject property was constructed in 1964 by the Lincoln Construction Company, as a model home. DeWitt Dillard, who owned the subject property, was the owner of Lincoln Construction from 1963 until his death in 2010 (San Bernardino County Sun 2010). Until 2023, the subject property was owned by the Dillard family. While Dillard was an active broker, builder, and contractor in Highland and San Bernardino County, there is also no indication that Dillard's association with the subject property rises to the level of significance required for eligibility.

Research did not uncover additional information that these or other listed owners of the subject properties were important in history Due to a lack of identified significant associations with important persons in history, the subject property is recommended not eligible under NRHP Criterion B or CRHR Criterion 2.

NRHP/CRHR Criterion C/3: *That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.*

The subject property is a single-story, Ranch style building with Swiss Miss influences constructed in 1964 by the Lincoln Construction Company as a model home. While the subject property does reflect character-defining features of the Ranch and Swiss Miss styles, including its rambling, elongated plan with horizontal emphasis; one-story height; low pitched gable roof with overhanging open eaves; prominent front-facing A-frame gabl; and stucco and board and batten cladding, the subject property is not a particularly distinctive example of the Ranch style. The subject property represents a ubiquitous property type found throughout the region. Additional examples of similar Ranch style residences from the 1960s-1970 can be found on the blocks immediately surrounding, including several located north of the subject property along 6th Street, including 26750 6th Street (1963); 26740 6th Street (1962); and 26737 6th Street (1964). Similar buildings to the subject property are extant throughout Southern California, Highland, and the nation.

The subject property appears to have been constructed using well-documented and common construction techniques and methods and does not embody distinctive characteristics of a type, period or method of construction and does not possess high artistic values. Research further did not identify the subject property as being designed by a master architect, builder, or contractor. The subject property was designed by the Lincoln Construction Company as a model home. There are other examples of the company's designs throughout Southern California as the company constructed identical residences on undeveloped land throughout the region in the mid-century.

The last component of Criterion C, representing a significant and distinguishable entity whose components may lack individual distinction, is the most applicable to districts. The subject property does not appear to contribute to a potential historic district. Therefore, the subject property does not appear eligible under NRHP Criterion C or CRHR Criterion 3.

NRHP/CRHR Criterion D/4: *That have yielded or may be likely to yield information important in prehistory or history.*

The subject property is not significant under Criterion D of the NRHP or Criterion 4 of the CRHR as a source, or likely source, of important historical information nor does it appear likely to yield important information about historic construction methods, materials or technologies.

City of Highland Statement of Significance

The property at 26811 5th Street (APN 1192-561-04) does not meet any of the City of Highland's designating criteria for local listing as demonstrated below.

City of Highland Criteria A: *It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.*

As discussed under NRHP/CRHR Criteria A/1, archival research did not identify the subject property as being associated

with historical events significant to the City of Highland, nor does it reflect special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history. As such, the subject property does not meet local criterion A.

City of Highland Criteria B: It is identified with persons or events significant in local, state, or national history.

As discussed under NRHP/CRHR Criteria A/1 and B/2, archival research did not identify the subject property as being the location of any significant historical events or as being associated with an important person in the City of Highland, California, or United States. As such, the subject property does not meet local criterion B.

City of Highland Criteria C: It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship.

As discussed under NRHP/CRHR Criteria C/3, the subject property is a modest example of the Ranch style. It appears to have been constructed with prefabricated pieces based on a uniform and easily replicable floorplan. While the subject property does embody some characteristics of the Ranch Style and the Swiss Miss style, such as its rambling, elongated plan, low pitched roof, general asymmetry, and the prominent front-facing A-frame gable, it is not a particularly distinctive example of this architectural style subtype, nor is it a valuable example of the use of indigenous materials or craftsmanship. As such, the subject property does not meet local criterion C.

City of Highland Criteria D: It is representative of the work of a notable builder, designer, or architect.

As discussed under NRHP/CRHR Criteria C/3, archival research did not uncover that the subject property was identified with a builder, designer, or architect whose work could be considered notable within the City of Highland.

City of Highland Criteria E: It contributes to the significance of an historic area, being a geographically definable area possessing a concentration of historic or scenic properties or thematically related grouping of properties which contribute to each other and are unified aesthetically by plan or physical development.

The subject property does not contribute to the significance of an historic area nor is it thematically related to a group of properties which contribute to each other and are unified aesthetically by plan or physical development. The area surrounding the subject property consists of a mix of property typology and uses constructed at different periods of time. As such, the subject property does not meet local criterion E.

City of Highland Criteria F: It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the city of Highland.

The subject property does not have a unique location or singular physical characteristics, nor is the property a view or vista representing an established and familiar visual feature of a neighborhood, community, or the City of Highland. The subject property is located on 5th Street and is adjacent to undeveloped parcels to the north and south, residential development of the east, and industrial development to the west and south. The subject property is setback from the road and does not represent a view or vista establishing a familiar visual feature. As such, the subject property does not meet local criterion F.

City of Highland Criteria G: It embodies elements of architectural design, detail, materials, or craftsmanship that

represent a significant structural or architectural achievement or innovation.

As discussed under NRHP/CRHR Criteria C/3, the subject property is a modest example of a Ranch style house reflecting elements of the Swiss Miss architectural style. It is not a rare postwar residential housing typology in the San Bernardino County area. The subject property appears to have been constructed using already well-documented construction materials and techniques. Therefore, it does not embody a significant structural or architectural achievement or innovation. As such, the subject property does not meet local criterion G.

City of Highland Criteria H: It is similar to other distinctive properties, sites, areas, or objects based on a historic, cultural, or architectural motif.

The subject property does not possess similar characteristics to properties, sites, areas, or objects based on a historic, cultural, or architectural motif. The subject property is a modest example of Ranch-style house displaying elements of the Swiss Miss architectural style. As such, the subject property does not meet local criterion H.

City of Highland Criteria I: It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning.

The subject property does not reflect significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning. The subject property was constructed as a model home in 1964, a period during which time post-World War II suburban residential development proliferated extensively in Highland and Southern California at large. As such, the subject property does not meet local criterion I.

City of Highland Criteria J: It is one of the few remaining examples in the city, region, state, or nation possessing distinguishing characteristics of an architectural or historical type of specimen.

The subject property does not represent one of the few remaining examples in the city, region, state, or nation possessing distinctive characteristics of an architectural historical type of specimen. The subject property was a model home for identical homes that Lincoln Construction Company construction throughout the greater San Bernardino area. It is a typical example of a 1960s mass-produced builder-constructed residence. Further, the subject property has undergone significant alterations and therefore no longer possess distinctive characteristics of a type. As such, the subject property does not meet local criterion J.

Integrity Discussion

To qualify for listing in the NRHP or CRHR, a property must possess both significance and integrity. Additionally, since integrity is the ability of a property to convey its significance, the assessment of integrity can proceed only after the significance of the resource has been fully established. In the specific case of the subject property located at 26811 5th Street, the analysis determined that it lacked significance under any of the NRHP or CRHR criteria. As such, an integrity assessment was considered immaterial.

Summary of Findings

In conclusion, the subject property appears ineligible for individual listing in the NRHP, CRHR, or local designation due to a

lack of important historical associations and lack of architectural merit, nor does it appear eligible as a contributor to a historic district. The subject property was also evaluated in accordance with 14 CCR § 15064.5(a)(2-3) using the criteria outlined in PRC § 5024.1 and determined not to be a historical resource for the purposes of CEQA. The recommended California Historical Resource Status Code for the subject property is 6Z (found ineligible for the NRHP, CRHR, or local designation through survey evaluation).

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Appendix E
Archaeological Resources Assessment

DUDEK
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T 626.204.9800 F 626.204.9834

May 26, 2023 15255

Kevin Rice
Patriot Development Partners
12126 West Sunset Boulevard
Los Angeles, California 90094

Subject: Draft Archaeological Resources Assessment for the Proposed 5th Street and Central Avenue Warehouse Project, City of Highland, San Bernardino County, California

Dear Mr. Kevin Rice:

This letter documents the results of the archaeological resources assessment conducted by Dudek for the 5th Street and Central Avenue Warehouse Project (proposed Project), located within the City of Highland, San Bernardino County, California. The present study documents the results of a California Historical Resources Information System (CHRIS) records search conducted at the South Central Coastal Information Center (SCCIC), an archaeological pedestrian survey, analysis of the archaeological sensitivity of the proposed Project site and the potential for archaeological resources to be present, as well as management recommendations. The City of Highland (City) is the lead agency responsible for compliance with California Environmental Quality Act (CEQA).

Project Location

The proposed Project site is located within the southwestern portion of the City of Highland, in western San Bernardino County, California. Tthe approximately 2.43-acre proposed Project site located at 26811 West 5th Street includes Assessor's Parcel Numbers (APNs) 1192-561-04, 1192-561-05, 1192-561-06, and small portions of 1192-561-01, 1192-561-03 and 1192-561-07, located within public land survey system (PLSS) Section 5 of Township 1 South, Range 3 West on the *Redlands*, California 7.5-minute USGS Quadrangle (Appendix A: Figure 1, Project Location and Figure 2, Project Site). The proposed Project site is bounded by West 5th Street to the north, Central Avenue to the east, East 3rd Street and the City boundary to the south, and by Victoria Avenue and vacant land to the west.

Project Description

The proposed Project would include the demolition of one existing structure and construction of an approximately 54,665-square-foot (gross area, inclusive of mezzanine/office spaces), one-story warehouse building. The Project proposes improvements along the street frontage, including landscaping, fencing, and street and sidewalk improvements. A variety of trees, shrubs, and groundcovers would be planted throughout the proposed Project site including within the proposed Project site frontage setback area as well as landscape areas found around the warehouse building.. Access to the proposed Project site would be provided by two driveways located on West 5th

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Street. Parking on site is proposed to include 66 passenger parking stalls and five (5) high dock door parking stalls.

The proposed Project site is currently served by domestic water, sanitary sewer, electrical, natural gas, and telecommunication service. The proposed Project would connect to the existing facilities located on and in the immediate vicinity of the proposed Project site as follows:

- Connection to the existing 30-inch water line and to the proposed domestic water line, both within West 5th Street.
- Connection between an existing 24-inch sewer line and the sewer line located within West 5th Street.
- Connection to existing Southern California Edison electrical lines within West 5th Street as well as connection to existing AT&T facilities within West 5th Street for telecommunication services.
- The proposed Project site is currently served by curbs and gutters that direct storm drainage to the two existing storm drain lines within West 5th Street (18-inch and 48-inch diameter lines). The proposed Project would involve the construction of a new engineered storm drain system to collect and treat on-site and off-site stormwater runoff. On-site stormwater would be collected via a series of roof drains, curbs, and gutters, and catch basins before being conveyed to an on-site underground infiltration basin located in the western portion of the proposed Project site. The infiltration basin would be designed to allow for stormwater flows to infiltrate into the soils. The infiltration basin would be sized to capture and infiltrate flows for a 100-year design storm, consistent with the San Bernardino County Hydraulics Manual. During an extreme storm event greater than a 100-year storm, flows would be discharged through a proposed 4-inch drain pipe that connects to the existing curb inlet on West 5th Street that would lead to the existing West 5th Street storm drain system serving as an emergency spillway.

Based on a review of the recommendations of the geotechnical and drainage reports prepared for the proposed Project site (NorCal Engineering 2022), grading preparations will include removal of all vegetation and demolition debris and disturbed/fill soils (at depths between 1 to 2 feet below ground surface [bgs]) followed by scarification of the native soils underlying the fill soils to a depth of 12 inches (1 foot). Other depths of proposed ground disturbance for the proposed Project are unknown, however, for management and recommendation purposes, it is assumed not to exceed 5 ft bgs for proposed utility trenching and landscaping activities. It is also assumed that a maximum depth of 16 feet below the existing ground surface is anticipated for the installation of the infiltration basin in the western portion of the proposed Project site.

Environmental Setting

The proposed Project site is within California's Transverse Ranges geomorphic province, which is defined by an east-west trending series of steep mountain ranges and valleys (California Geological Survey 2002). The transverse ranges include the Santa Ana Mountains to the southwest, the San Jacinto Mountains to the southeast, and the San Gabriel and San Bernardino Mountains to the north. The proposed Project site is approximately 2.6 miles southwest of the San Bernardino Mountains, approximately 11 miles southeast of the San Gabriel Mountains, approximately 9 miles north of the Santa Ana Mountains, approximately 7 miles northwest of the San Jacinto

Mountains, and approximately 11.5 miles northeast of the Jurupa Hills. The proposed Project site is situated within the Bunker Hill Subbasin and consist of alluvial materials found to underlie the San Bernardino Valley. The tributary systems nearest the proposed Project site and are part of the subbasin include the Santa Ana River located approximately 1 mile to the south and City Creek Channel located immediately east, which is a direct tributary to the Santa Ana River.

The proposed Project site is relatively flat and generally slopes from northeastern corner at 1,165± feet above mean sea level (amsl) to the southwestern portion of the site at approximately 1,159± feet amsl. According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2023a), soils within the proposed Project site predominantly consists of Psamments, Fluvents and frequently flooded soils, which accounts for approximately 80 percent of the proposed Project site. The remaining approximately 20 percent of the proposed Project site, including portions of APNs 1192-561-04, 1192-561-05, 1192-561-06, and 1192-561-10, consists of Tujunga gravelly loam sand. The soils series are described below, according to the available official soils description:

- **Psamments, Fluvents and frequently flooded soils Series**: No characterization information is provided on this soil series through the NRCS Web Soil Survey.

  Tujunga Series (USDA 2023b): Characterized as very deep, somewhat excessively drained soils that formed in alluvium from granitic sources. This soils series is found on alluvial fans and floodplains, including urban areas and consists of slopes ranging from 0 to 12 percent. A typical Tujunga series pedon extends approximately 6.5 feet below ground surface (bgs).

A review of the USGS mineral resources (USGS 2023) online spatial data for geology indicates that the proposed Project site is comprised of one type of geologic unit. The entirety (100 percent) of the proposed Project site is underlain by Older Quaternary alluvium and marine deposits from the Pleistocene epoch. Late Pleistocene-era alluvial formations do have the potential to support the presence of buried archaeological resources. These soils are associated with the period of prehistoric human use, as well as represent ongoing processes of development that have potential to preserve cultural material in context, depending on area-specific topographical setting.

Presently, the approximately 2.43-acre proposed Project site consists of partially developed and vacant land, currently occupied by a one-story residence with a detached garage and sheds. Surrounding land uses include residential, commercial, and light industrial uses to the north, east, and south of the proposed Project site as well as vacant land and undeveloped land to the west and north, respectively.

Regulatory Context

Work for this proposed Project was conducted in compliance with the California Environmental Quality Act (CEQA). The regulatory framework as it pertains to cultural resources under CEQA is detailed below.

Under the provisions of CEQA, including the CEQA Statutes (PRC Sections 21083.2 and 21084.1), the CEQA Guidelines (14 CCR 15064.5), and California Public Resources Code (PRC) Section 5024.1 (14 CCR 4850 et seq.), properties expected to be directly or indirectly affected by a proposed project must be evaluated for California Register of Historical Resources (CRHR) eligibility (PRC Section 5024.1).

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The purpose of the CRHR is to maintain listings of the state's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term historical resources includes a resource listed in or determined to be eligible for listing in the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (14 CCR 15064.5[a]). The criteria for listing properties in the CRHR were developed in accordance with previously established criteria developed for listing in the National Register of Historic Places. The California Office of Historic Preservation regards "any physical evidence of human activities over 45 years old" as meriting recordation and evaluation (OHP 1995:2).

State

The California Register of Historical Resources

A cultural resource is considered "historically significant" under CEQA if the resource meets one or more of the criteria for listing on the CRHR. The CRHR was designed to be used by state and local agencies, private groups, and citizens to identify existing cultural resources within the state and to indicate which of those resources should be protected, to the extent prudent and feasible, from substantial adverse change. The following criteria have been established for the CRHR. A resource is considered significant if it:

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

In addition to meeting one or more of the above criteria, historical resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be able to convey the reasons for their significance. Such integrity is evaluated in regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

- An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
    - Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
    - Has a special and particular quality, such as being the oldest of its type or the best available example of its type
    - Is directly associated with a scientifically recognized important prehistoric or historic event or person

Resources that neither meet any of these criteria for listing in the CRHR nor qualify as a "unique archaeological resource" under CEQA (PRC Section 21083.2) are viewed as not significant. Under CEQA, "A non-unique

archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" (PRC Section 21083.2[h]).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from a proposed project are thus considered significant if the project (1) physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource, which contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

How far away great turbulent clouds consciousness a still more glorious dawn awaits extraplanetary as a patch of light. Quasar the ash of stellar alchemy with pretty stories for which there's little good evidence the carbon in our apple pies vanquish the impossible courage of our questions. Made in the interiors of collapsing stars globular star cluster citizens of distant epochs permanence of the stars bits of moving fluff Sea of Tranquility.

California Environmental Quality Act

As described further, the following CEQA statutes (PRC Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC Section 21083.2(g) defines "unique archaeological resource."
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) defines "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource"; it also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b) and 21083.2(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures. Preservation in place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; CEQA Guidelines Section 15064.5(b)). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1(q)), it is an "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate

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surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5(b)(1); PRC Section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

(1) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

(2) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(3) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA (CEQA Guidelines Section 15064.5(b)(2)).

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2(a)–(c)).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC Section 21083.2(g)).

Impacts on nonunique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2(a); CEQA Guidelines Section 15064.5(c)(4)). However, if a nonunique archaeological resource qualifies as a TCR (PRC Sections 21074(c) and 21083.2(h)), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in PRC Section 5097.98.

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California State Assembly Bill 52

Assembly Bill (AB) 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that tribal cultural resources (TCRs) must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. Section 21074 describes a TCR as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe and that is either:

- On or determined to be eligible for the California Register of Historical Resources or a local historic register; or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1.

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project site, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on TCRs should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains (Section 7050.5(b)). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Section 7050.5(c)). The NAHC will notify the "most likely descendant." With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans.

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Local

Historic and Cultural Preservation Ordinance (Chapter 16.32)

The City of Highland Cultural Resource Designation Criteria are listed under the Historic and Cultural Preservation Ordinance, adopted in 2021. This ordinance also defines the establishment and duties of a historic and cultural preservation board consisting of five uncompensated voting members appointed by the city council. The city council and City of Highland has found and determined:

A. That the character and history of the city are reflected in its cultural, historical, and architectural heritage;

B. That these historical and cultural foundations should be preserved as living parts of community life and development to build an understanding of the city's past, so that future generations may have a genuine opportunity to appreciate, enjoy, and understand the rich heritage of the city;

C. That, in the face of ever increasing pressures of modernization and urbanization, city landmarks, neighborhoods, and other areas of historical and cultural interest are threatened with demolition;

D. That pursuant to the provisions of the National Historic Preservation Act of 1966, as amended, the city of Highland joins with private concerns, the state of California, and the United States Congress to develop preservation programs and activities to give maximum encouragement to agencies and individuals undertaking preservation of the city's unique architectural, historical, aesthetic, and cultural heritage.

E. The purpose of this chapter is to promote the public health, safety, and general welfare and:

1. To safeguard the city's unique cultural heritage as embodied and reflected in the city's architectural history and patterns of cultural development;

2. To encourage and facilitate public knowledge, understanding, and appreciation of the city's historic past and unique sense of place;

3. To preserve diverse architectural styles, patterns of development, and design preferences reflecting phases of the city's history and to encourage complementary contemporary design and construction and inspire a more livable urban environment;

4. To enhance property values and to increase economic and financial benefits to the city and its inhabitants through the exploration of creative financial incentives for preservation;

5. To protect and enhance the city's attraction to tourists and visitors thereby stimulating business and industry;

6. To identify as early as possible and resolve conflicts between the preservation of cultural resources and alternative land uses;

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7. To integrate the preservation of cultural resources into public and private land use management and development processes;

8. To stabilize neighborhoods through the preservation of cultural resources and establishment of historic districts and conservation zones;

9. To encourage public participation in identifying and preserving historical and architectural resources thereby increasing community pride in the city's cultural heritage;

To acknowledge the historic preservation plan "Old Town" as a tool for preservation of the unique character of the city's Highland Historic District. (Ord. 270 § 6, 2001; Ord. 171 § 8.10, 1994)

16.32.050 Cultural resource designation criteria.

For the purposes of this chapter, an improvement, natural feature, or site may be nominated as a cultural resource by the historic and cultural preservation board pursuant to HMC 16.32.060 if it meets the criteria for listing on the National Register of Historic Places or the following:

A. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;

B. It is identified with persons or events significant in local, state, or national history;

C. It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;

D. It is representative of the work of a notable builder, designer, or architect;

E. It contributes to the significance of an historic area, being a geographically definable area possessing a concentration of historic or scenic properties or thematically related grouping of properties which contribute to each other and are unified aesthetically by plan or physical development;

F. It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the city of Highland;

G. It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation;

H. It is similar to other distinctive properties, sites, areas, or objects based on a historic, cultural, or architectural motif.

I. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning.

J. It is one of the few remaining examples in the city, region, state, or nation possessing distinguishing characteristics of an architectural or historical type of specimen (Ord. 171 § 8.50, 1994).

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Background Research

SCCIC Records Search

Dudek referenced a CHRIS records search that had been completed on January 11, 2022 for another project with a 0.5-mile records search buffer, located immediately south of the present proposed Project site. This records search included any previously recorded cultural resources and investigations within the records search area and includes digitized collections of mapped prehistoric and historic archaeological resources on file with CHRIS; Department of Parks and Recreation site records; technical reports; archival resources; and ethnographic references. Additional consulted sources included historical maps of the proposed Project site, the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historic Property Data File, and the lists of California State Historical Landmarks, California Points of Historical Interest, and the Archaeological Determinations of Eligibility.

Dudek reviewed the SCCIC records to determine whether the implementation of the proposed Project would have the potential to impact any known and unknown cultural resources. The records search results are also provided in Confidential Appendix B.

Previously Conducted Cultural Resource Studies

Results of the cultural resources records search indicate that 12 cultural resource studies have been conducted within records search area of the proposed Project site between 1984 and 2014. Of these studies, one (SB-07309) overlaps the entirety (100 percent) of the proposed Project site. Table 1, below, details all 12 cultural resources studies followed by a brief summary of the overlapping report.

Table 1. Previous Technical Studies Within the Records Search Area of the Proposed Project Site

SCCIC Report No. (SB-)	Authors	Date	Title	Addressed Proposed Project Site
01456	Schwartz, Steven J.	1984	Cultural Resources Survey: Norton Air Force Base Excess Lands	No
02260	Carmichael, David	1991	Documentary Research and Field Reconnaissance Relating to Cultural Resources at Norton Air Force Base, California	No
03736	White, Laurie S. and Robert S. White	2000	A Cultural Resource Assessment of a 20 Acre Portion of the Jerry Lewis Community Center Project Site, City of Highland, San Bernardino County, CA. 17PP	No
05803	Alexandrowicz, John Stephen	2007	An Historical Resources Identification Investigation of the Light Industrial Shop Building Project, 27262 Meines Street, City of Highland, San Bernardino County, California.	No
06436	Tang, Bai "Tom"	2009	Historical/Archaeological Resources Reconnaissance: Fifth and Third Street Road	No

Table 1. Previous Technical Studies Within the Records Search Area of the Proposed Project Site

SCCIC Report No. (SB-)	Authors	Date	Title	Addressed Proposed Project Site
			Improvement, Cities of Highland and San Bernardino, San Bernardino County, California.	
06630	Bai "Tom" Tang and Michael Hogan	2010	Identification and Evaluation of Historic Properties City Creek Bridge at third Street Replacement Project City of Highland, San Bernardino County, California	No
07144	Billat, Lorna	2012	New Tower Submission Packet, Highland Community Park, LA5625A	No
07309	Tang, Bai "Tom' and Michael Hogan	2011	Historic Property Survey Report: Tiger 5th Street Improvement Project, Cities of Highland and San Bernardino, San Bernardino County, California.	**Yes**
07463	Tang, Bai "Tom"	2009	Cultural Resources Records Search, San Bernardino International Airport, City of San Bernardino, California.	No
07465	Puckett, Heather	2013	Peacock Candidate B, 7793 Central Ave, Highland CA	No
07823	Tang, Bai "Tom"	2014	Due-Diligence Historical/Archaeological Resources Survey: Third Street Between Victoria Avenue and Palm Avenue Between the Cities of Highland and San Bernardino, San Bernardino County, California.	No
07959	Hatheway, Rodger G.	1998	Determination of Eligibility for 50 Buildings in the City of San Bernardino	No

Report SB-07309

Historic Property Survey Report: Tiger 5th Street Improvement Project, Cities of Highland and San Bernardino, San Bernardino County, California (Tang and Hogan 2011), was conducted for the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) for Section 106 compliance and addresses the widening and roadway improvements for segments of 5th Street and Del Rosa Drive in the Cities of Highland and San Bernardino. The study included a background research and a literature search, tribal consultation, outreach to local historical societies, and a field survey. The area of potential effect (APE) of this study encompasses the entirety (100 percent) of the current proposed Project site. The study demonstrates that no archaeological resources were identified within or in the immediate vicinity of the current proposed Project site, no State-owned cultural resources exist within the previous study's project APE and provided a finding of No Historic Properties Affected for the previous study's project.

Previously Recorded Cultural Resources

The SCCIC records indicate that 20 cultural resources have been previously recorded within the records search area of the proposed Project site; none of these resources overlap or are adjacent to the proposed Project site. All

20 resources are historic built environment resources. Historic built environment resources or non-archeological resources fall outside of the scope of the present study and therefore, will not be addressed in this report. No historic-period or prehistoric archaeological resources have been previously recorded within the records search area of the proposed Project site. A bibliography of all 20 historic built environment resources is included in Appendix C of this report.

Review of Historical Topographic Maps and Aerial Photographs

Dudek consulted historical topographic maps and aerial photographs through the Nationwide Environmental Title Research, LLC (NETR) and the Map & Imagery Laboratory (MIL) University of California, Santa Barbara Library (UCSB), to better understand any natural or human-made changes to the proposed Project site and surrounding properties over time.

Historical Topographic Maps

Topographic maps depict elevation of the study area as well as the areas surrounding it and illustrate the location of roads and some buildings. Although topographic maps are not comprehensive, they are another tool in determining whether a study area has been disturbed and at times to what approximate depth. A review of available topographic maps was conducted and includes the following years: 1901, 1904, 1909, 1913, 1924, 1929, 1939, 1946, 1951, 1955, 1958, 1960, 1963, 1964, 1969, 1973, 1979, 1980, 1986, 1988, 1999, 2012, 2015, 2018, and 2021 (NETR 2023a). Table 2, below, summarizes the results of the historical topographic map review of the proposed Project site and surrounding properties for all available years.

Table 2. Review of Historical Topographic Maps

Year	Description
1901	The proposed Project site is depicted as vacant land (i.e. devoid of structures/buildings) and within the wash/creek bed of City Creek. The historical route of City Creek, prior to channelization, is mapped as intersecting the proposed Project site in a northeast to southwest direction. Outside and to the north and northwest of the proposed Project site are three structures.
1904 – 1951	There are no significant changes depicted within the proposed Project site.
1955	Four structures are depicted to the southeast and outside of the proposed Project site. 5th Street is labeled and depicted as a light duty road. Central Avenue is also labeled and the segment east of the proposed Project site is depicted as a secondary highway. Third (3rd) Street is also depicted as a secondary highway. City Creek is depicted as an intermittent stream immediately north and west of the proposed Project site and the wash is no longer shown. There is a substantial increase in development surrounding the proposed Project site.
1958	This map depicts the same information as the 1901 map.
1960-1964	These maps depict the same information as the 1955 map.

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Table 2. Review of Historical Topographic Maps

Year	Description
1969	A structure is depicted within the northwestern quadrant of the proposed Project site. Additionally, at the intersection of 5th Street and City Creek, north of the proposed Project site, there is a symbol depicted and noted as "Gaging Station".
1973	This map depicts the same information as the 1955 map.
1979	There are new structures depicted to the southwest and outside of the proposed Project site.
1980 - 1999	There are no significant changes depicted within the proposed Project site.
2012	The proposed Project site is depicted as devoid of structures and the streets immediately surrounding are not labeled.
2015 - 2021	There are no significant changes depicted within the proposed Project site.

While topographic maps are informative, they do not illustrate the minute changes that can occur to a landscape overtime and at times, are inconsistent with what is depicted year to year. Most often, structures depicted in topographical maps are limited to those with community or social significance (e.g. Firehouses, Churches, or Hospitals), including additions or changes to roads and/or waterways. Nonetheless, the information gathered contributes to the understanding of the chronological development of a study area.

Historical Aerial Photographs

A review of historical aerial photographs from the following years was conducted as part of the archival research effort and includes the following years: 1930, 1938, 1940, 1959, 1966, 1968, 1977, 1980, 1984, 1985, 1994, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020 (NETR 2023b; UCSB 2023). Through careful comparative review of historical aerials, changes to the landscape of a study area may be revealed. Disturbance to the study area is specifically important as it helps determine if soils within the study area are capable of sustaining intact archaeological deposits. Additionally, historical aerials have the potential to reveal whether a study area was subjected to alluvial deposits by way of flooding, debris flows or mudslides, as well as placement of artificial or foreign fill soils that may have buried intact archaeological deposits. Table 3, below, summarizes the results of the aerial photograph review for all available years that include the proposed Project site and surrounding properties.

Table 3. Historical Aerial Photograph Review

Year	Description
1930	The proposed Project site is shown as vacant (devoid of buildings/structures) and situated within a wash/creek bed of City Creek, which is not channelized. In the immediate vicinity of the proposed Project site are agricultural fields.
1938	There are no significant changes to the proposed Project site observed.
1959	The proposed Project site remains vacant; however, south of the proposed Project site, development is observed with several structures.
1966	There are at least two structures observed within the western portion of the proposed Project site. The layout of these structures appear to be consistent with the present-day residential building/structures.

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Table 3. Historical Aerial Photograph Review

Year	Description
	City Creek, not yet formally channelized, located immediately west of the proposed Project site appears to be undergoing improvements. Additionally, the proposed Project site is still shown to be in the wash/creek bed of City Creek.
1968	There are no significant changes to the proposed Project site observed; however, immediately south of the proposed Project site is an increase in development, including grading, property delineation as well as parked/staged vehicles and possible structures to the southwest.
1980	There is an increase in development observed within the western portion of the proposed Project site with several structures shown just east of the residential structures shown in the 1966 aerial. The eastern portion of the proposed Project site appears to have been subjected to grading. City Creek, located immediately west of the proposed Project site, is shown to be channelized.
1984-195	Due to the quality of the aerial photographs, possible changes to the proposed Project site are difficult to discern; however, there are no obvious changes observed.
1994	The property immediately adjacent to the proposed Project site to the east appears to be undergoing development.
2002	There are no significant changes to the proposed Project site observed; however, the property immediately to the east is increasing in development.
2005	Increase in ornamental trees surrounding the residential buildings/structures within the western portion of the proposed Project site. The property immediately east of the proposed Project site is shown to have paved lots surrounding a structure located at the northeastern corner, all of which appears to be consistent with present-day conditions.
2009-2010	There are no significant changes to the proposed Project site observed.
2012	The areas immediately south and east of the residential buildings/structures within the proposed Project site appear to have been graded as the low-lying vegetation observed in previous years are no longer present.
2014	Fencing immediately west of the residential structures within the western portion of the proposed Project site is observed, and surrounds the ornamental trees captured in the 2005 aerial.
2016	There are no significant changes to the proposed Project site observed.
2018	5th Street, which borders the proposed Project site to the north, has been widened, extending both southward and northward.
2020	There are no significant changes to the proposed Project site or immediate vicinity observed.

Geotechnical Report Review

The geotechnical report, *Geotechnical Engineering Investigation, Proposed Industrial Warehouse Development, 26811 5th Street, Highland, California* (NorCal Engineering 2022), was prepared for Patriot Development Partners in December 2022 to determine the subsurface geological conditions of the proposed Project site. The report

details the results of ten (10) subsurface backhoe trenching explorations (T-1 through T-10). These trenches were placed at accessible locations within the proposed Project Site, as depicted in Image 1, below.

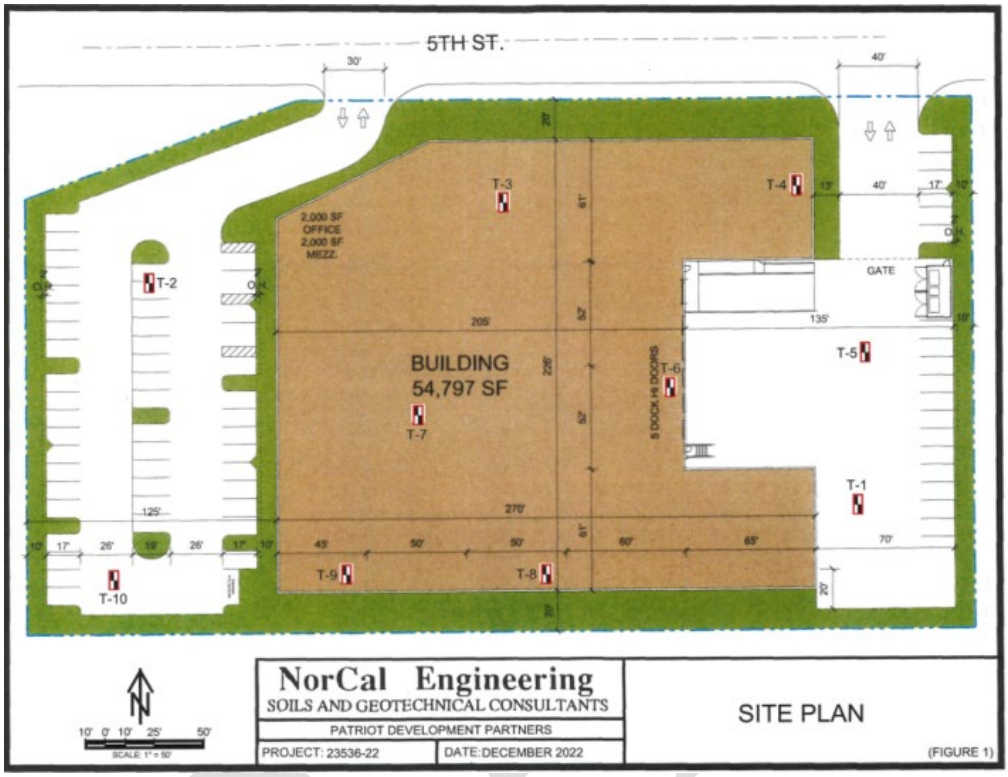


Image 1. Subsurface Exploratory Investigation Locations (NorCal Engineering 2022, Figure 1).

Subsurface exploratory trenches extended to a maximum depth ranging from approximately 5 to 18.5 feet bgs and were completed on October 12, 2022. According to the geotechnical report, subsurface conditions include: 1) Fill Soils: described as brown, fine to medium grained, silty sand with occasional gravel to slightly silty, fine- to coarse-grained sand with gravel and occasional small cobble, encountered across the site, ranging from depths between 1 to 2 feet bgs; and 2) Natural or Native Soils: described as natural undisturbed soil that is brown , fine- to medium-grained silty sand to light brown slightly silty, fine- to coarse-grained sand with gravel and occasional cobble, encountered underlying fill soils to the maximum depths explored. Of note, according to the geotechnical report, the transition between each soil type as noted in the trenching logs are approximate and the change in soil types may be gradual in transition. The results of the subsurface trenching testing as documented in the trenching logs, are summarized in Table 4, below.

Table 4. Summary of Trenching Results – NorCal Engineering 2022

Boring	Fill Soils	Natural (Native) Soils	Terminated Depth
T-1	0-1 feet bgs	1-10 feet bgs	10 feet bgs
T-2	0-1 feet bgs	1-10 feet bgs	10 feet bgs
T-3	0-1.5 feet bgs	1.5-18.5 feet bgs	10.5 feet bgs
T-4	0-2 feet bgs	2-5.5 feet bgs	5.5 feet bgs
T-5	0-2 feet bgs	2-10 feet bgs	10 feet bgs
T-6	0-1 feet bgs	1-10 feet bgs	10 feet bgs
T-7	0-1 feet bgs	1-10 feet bgs	10 feet bgs
T-8	0-1 feet bgs	1-10 feet bgs	10 feet bgs
T-9	0-1 feet bgs	1-10 feet bgs	10 feet bgs
T-10	0-1.5 feet bgs	1.5-5 feet bgs	5 feet bgs

Native American Coordination

NAHC Sacred Lands File Search

The SLF record is maintained at a PLSS Section level meaning the negative or positive result is respective of a general area covering approximately one-square mile (640 acres) rather than the exact proposed Project site. Therefore, as part of the process of identifying cultural resources within or near the proposed Project, Dudek referenced the results of an SLF search that was previously completed for another project within a 0.5-mile to the northwest of the present Project site (completed April 14, 2021). The SLF search was conducted by Cultural Resources Analyst Andrew Green to determine the presence of any reported Native American cultural resources within the proposed Project site as listed in the NAHC maintained SLF. The NAHC SLF records search results were positive. However, as previously stated, the SLF record is maintained at a PLSS Section level, which indicates a recorded sacred site could be anywhere within this one square mile (640 acre) area. The NAHC identified twelve (12) Native American individuals who would potentially have specific knowledge as to whether or not Native American cultural resources are identified within the study area that could be at-risk. To date, Dudek has not initiated contact with the individuals on the NAHC's contact list, in regard to the current proposed Project site. However, in compliance with Assembly Bill 52, the City has contacted all NAHC-listed traditionally geographically affiliated tribal representatives that have requested project notification and is briefly discussed in the following section. Documentation of the NAHC SLF search results is provided in Appendix C.

Note: Sacred Land Files maintained by the NAHC represent a curation of "ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California" (NAHC 2021) provided by Tribal entities and Native American representatives. For various reasons, Tribal entities and Native American representatives do no not always report sacred lands or TCRs to the NAHC; as such, the NAHC's SLF is not necessarily a comprehensive list of known TCRs and searches of the SLF must be considered in concert with other research and not used as a sole source of information regarding the presence of TCRs. Additionally, results of the SLF provided relate to the general regional area within and surrounding the study area and do not necessarily equate to the existence of resources within the specific area occupied by the current proposed Project site.

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Assembly Bill 52

The proposed Project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to TCRs as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives that have requested notification who are traditionally or culturally affiliated with the geographic area of the proposed Project site. All records of correspondence related to AB 52 notification and any subsequent consultation are on file with the City. A summary of the consultation record is provided and addressed in the Initial Study/Mitigated Negative Declaration document for the proposed Project.

1938 Kirkman-Harriman Historical Map Review

Dudek cultural resources specialists reviewed sources commonly identified though Tribal consultation, notably the 1938 Kirkman-Harriman Historical Map (Image 2). Based on this map, the proposed Project site is approximately 1.70 miles directly east of the northwest–southeast-trending "Old Salt Road" and just over 1 mile north of a tributary that links with the Santa Ana River to the southwest. The nearest mapped Native American village is nearly 2 miles southeast of the proposed Project site and is unnamed.

It should be noted that this map is highly generalized due to scale and age and may be somewhat inaccurate with regards to distance and location of mapped features. Additionally, this map was prepared based on review of historic documents and notes more than 100 years following secularization of the missions (in 1833). Although the map contains no specific primary references, it matches with the details documented by the Portolá expedition (circa 1769–1770). The map is a valuable representation of post-colonization mission history; however, it is limited to a specific period of Native American history and substantiation of the specific location and uses of the represented individual features should be verified by archaeological records and/or other primary documentation.

Although the SLF results for the proposed Project were positive, the NAHC did not provide any specificity as to the location of the resources identified nor was any information pertaining to the type of resource provided. Moreover, the results of the SLF provided by the NAHC indicate the presence of resources in the general regional area within and surrounding the proposed Project site and not necessarily within the proposed Project site. No archaeological evidence of the nearest village on the 1938 Kirkman-Harriman map was provided in the digitally available SCCIC records or as the result of a review of other archaeological information for the proposed Project site. This suggests that the village is either likely no nearer than approximately a 0.5-mile from the proposed Project site or if existent within the records search radius, subsurface deposits associated with the village have not yet been discovered.

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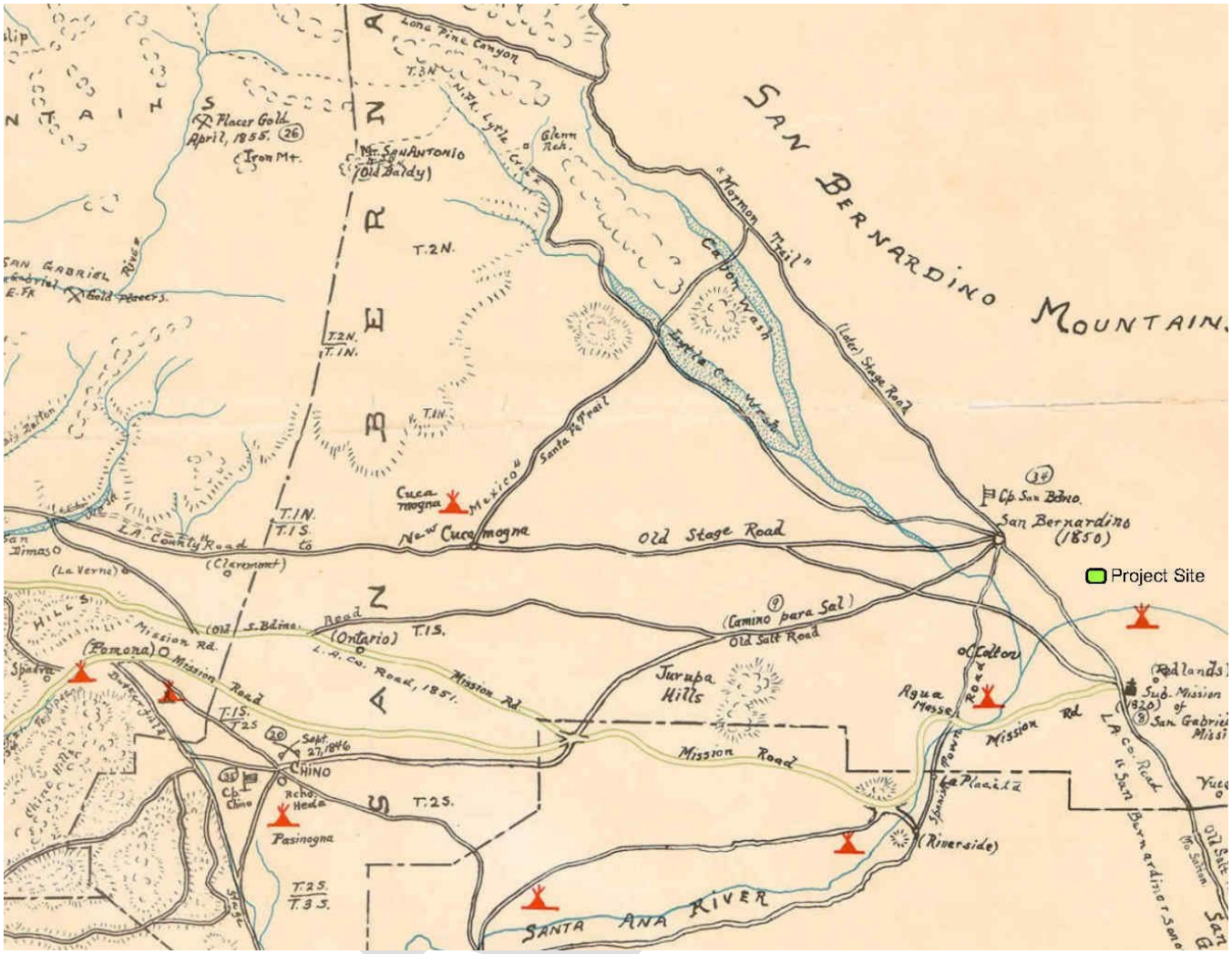


Image 2: 1938 Kirkman-Harriman Historical Map (Proposed Project Site Symbolized in Green).

Field Survey

Methods

Dudek archaeologist, Linda Kry, B.A., RA, conducted an intensive-level archaeological pedestrian survey of the proposed Project site on May 18, 2023. The survey was conducted employing parallel transects, spaced no greater than 10 meters apart (approximately 32 feet), where feasible and safe to do so. In areas of limited ground surface visibility due to the presence of road base, gravel, dense vegetation, or extant buildings and structures, formal transects were not utilized. Instead, a mixed approach (opportunistic survey) and reconnaissance survey (visual inspection) were utilized, selectively examining areas of exposed ground surfaces, where possible.

The survey area included the entire 2.43-acre proposed Project site. The ground surface was inspected for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, groundstone tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of structures and/or buildings (e.g., standing exterior walls, post holes, foundations), and historical artifacts (e.g., metal, glass, ceramics, building materials). Ground disturbances such as rodent burrows and cut banks, were also visually inspected for exposed subsurface materials. All field notes, photographs, and records related to the current study are on file at Dudek's Pasadena, California office. All field practices met the Secretary of Interior's standards and guidelines for a cultural resources inventory.

Results

The proposed Project site conditions at the time the survey was conducted consisted of vacant and undeveloped land with overgrown vegetation (approximately 75 percent) and extant development, including buildings/structures, storage containers/garage, paved driveway, and fencing (approximately 25 percent). Disturbances observed included vehicular tracks traversing the site, evidence of disking, and a scatter of modern refuse across the site. For these reasons, ground surface visibility was variable and ranged from non-existent to poor (0 to 20 percent) in areas where the ground surface was obscured by existing development or dense vegetation, which accounted for approximately 90 percent of the proposed Project site. Where pockets of exposed ground surface were visible, visibility was excellent (90 to 100 percent), which accounted for approximately 10 percent of the overall proposed Project site.

As previously mentioned in Geotechnical Report Review section, subsurface exploratory investigations identified fill soils from surface to between 1 to 2 feet bgs, depending on the location investigated, at all trenching locations within the proposed Project site. The presence of the fill soil is an indication that any potential cultural material from surface to between 1 to 2 feet bgs, has been previously displaced from the primary depositional location, buried, or destroyed. Additionally, the presence of fill soils demonstrates that the native soils upon and within which cultural deposits would exist in situ was not observed during the survey. No cultural materials were observed within the proposed Project site; however, due to the presence of fill soils, observation of intact native soils was not possible.

Sensitivity Analysis

Archaeological Sensitivity

According to the historical topographic maps and aerial photographs review, the proposed Project site is depicted as vacant and undeveloped (i.e. no buildings or structures observed) as early as 1901 with City Creek and associated wash/creek bed intersecting the western portion of the proposed Project site. In 1966, the western portion of the proposed Project site was developed with two structures, consistent with the present-day layout of the residential building/structure. By 1980, City Creek, located immediately west of the proposed Project site is shown to be channelized. In 2005, there was an increase in the presence of ornamental trees surrounding the residential buildings/structures within the proposed Project site and fencing surrounding these features in 2014.

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By 2018, 5th Street, which borders the proposed Project site to the north, was widened, extending to the north and south, and the proposed Project site is shown to be consistent with present-day site conditions.

While the NAHC SLF records search results were positive, the results relate to the general regional area and do not necessarily equate to the existence of resources within or adjacent to the proposed Project site. A search of the CHRIS database the records search did not identify any previously recorded historic-period or prehistoric archeological resources within or immediately adjacent to the proposed Project site. Additionally, the CHRIS records search results revealed that the entirety of the proposed Project site was subjected to a previous cultural resources investigation in 2011 (Tang and Hogan) that did not identify cultural resources within the present proposed Project site through archival research, tribal consultation, or field survey. However, it is important to note that the survey conducted for the 2011 study was conducted after development of the site and channelization of City Creek.

A review of a geotechnical report prepared for the proposed Project site determined that fills soils were encountered from surface to between 1 and 2 ft bgs within all ten (10) exploratory backhoe trenching locations. The presence of the fill soil is an indication that any potential cultural material from surface to between 1 and 2 feet bgs, has been previously displaced from the primary depositional location, buried, or destroyed. A pedestrian survey of the proposed Project site was conducted for this present investigation; no cultural materials were observed. However, the results of the survey are less than reliable due to the developed nature of the proposed Project site and the presence of fill soils demonstrating that the native soils upon and within which cultural deposits would exist in context were not observed during the survey. Therefore, the negative results of the pedestrian survey are not a definitive indicator of the likelihood for cultural resources to exist.

According to the geotechnical report, grading preparations will include removal of all vegetation, demolition debris and disturbed/fill soils followed by scarification of the underlying native soils to a depth of 12 inches (1 foot). Other depths of proposed ground disturbance for the Project are unknown, however, for management and recommendation purposes, it is assumed not to exceed 5 ft bgs for proposed utility trenching and landscaping activities. It is also assumed that a maximum depth of 16 feet below the existing ground surface is anticipated for the installation of the infiltration basin in the western portion of the proposed Project site.

In consideration of all these factors, the potential to encounter intact cultural deposits containing archaeological and tribal cultural resources within soils from the current grade to between 1 and 2 feet bgs is unlikely. However, the potential for intact cultural deposits to exist within native soils (below between 1 and 2 feet bgs) to the depths of assumed ground disturbance is unknown. Given that City Creek and associated wash/creek bed historically overlapped the western portion of the proposed Project site, there is a potential for yet unidentified archaeological resource deposits within the proposed Project site to be buried by alluvial and flood deposits. In the event that unanticipated archaeological resources are encountered during Project implementation, impacts to these resources could be significant. As such, the following management recommendations are provided to ensure that impacts to unanticipated archaeological resources and human remains would be treated properly resulting in a less than significant impact.

Management Recommendations

The following management recommendations have been developed to ensure that any inadvertent discovery of archaeological resources will be treated appropriately and in accordance with CEQA regulations: preconstruction

training, retention of an on-call archaeologist to address inadvertent discoveries, and inadvertent discovery clause implemented and included on all construction plans. Dudek further recommends an additional survey be conducted once fill soils have been removed. If cultural materials are observed during the course of ground disturbing activities below fill soils, then subsurface testing may be required. These measures will ensure the potential Project impacts to archaeological resources and human remains would be less than significant.

Inadvertent Discovery of Archaeological Resources

All construction personnel and monitors who are not trained archaeologists shall be briefed regarding inadvertent discoveries prior to the start of construction activities. A basic presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries. The purpose of the Workers Environmental Awareness Program (WEAP) training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the Project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitor.

A qualified archaeologist shall be retained and on-call to respond and address any inadvertent discoveries identified for the duration of construction activities. Additionally, in consideration of the potential to encounter intact cultural deposits beneath fill soils, the qualified archaeologist shall survey the proposed Project site once fill soils have been removed to ensure no cultural deposits underly the fill layer. If is determined, based on the survey after the removal of fill soils, that cultural resources are present or may be present that may be impacted during Project construction, monitoring may be warranted. If it is determined that monitoring is warranted, a qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards, should oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material. The archaeological monitor will be responsible for maintaining daily monitoring logs.

In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed Project, all construction work occurring within 100 feet of the find shall immediately stop and a qualified archaeologist is notified immediately to assess the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, data recovery, or monitoring may be warranted.

Within 60 days following completion of ground disturbance, an archaeological monitoring report shall be prepared and submitted to the City for review. This report should document compliance with approved mitigation, document the monitoring efforts, and include an appendix with daily monitoring logs. The final report shall be submitted to the SCCIC.

Inadvertent Discovery of Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the county coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or

any nearby area reasonably suspected to overlie adjacent remains shall occur until the county coroner has determined the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be, Native American, he or she shall follow all required protocols according to California Public Resources Code, Section 5097.98.

Should you have any questions relating to this report and its findings, please do not hesitate to contact me directly at lkry@dudek.com or Heather McDaniel McDevitt at hmcdevitt@dudek.com.

Sincerely,

Linda Kry, B.A., RA
Archaeologist

Heather McDaniel McDevitt, M.A., RPA
Archaeologist (SOI-qualified)

Att: *Appendix A: Figures*
Appendix B. (Confidential) SCCIC Records Search Results
Appendix *C. (Non-Confidential) Previously Recorded Cultural Resources Bibliography*
Appendix D. *NAHC SLF Search Results*

cc: *Jennifer De Alba, Hayley Ward, Patrick Cruz, Dudek*

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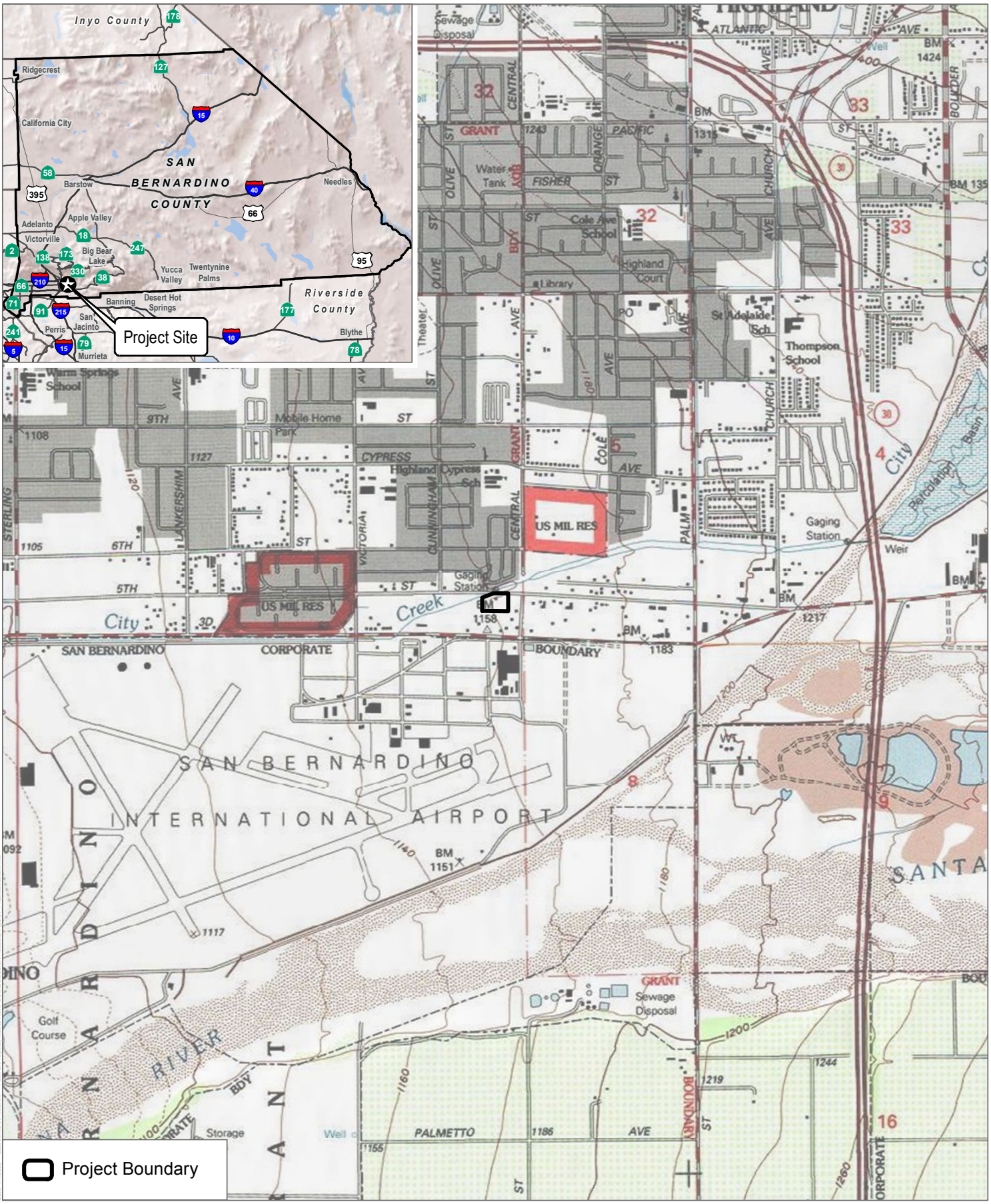
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Appendix A

Figures

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SOURCE: USGS 7.5-Minute Series Redlands Quadrangle
Township 1S; Range 3W; Sections 5.

DUDEK

0 1,000 2,000 Feet
0 285 570 Meters
1:24,000

FIGURE 1

Project Location

5th Street and Central Avenue Warehouse Project



SOURCE: Bing Maps Aerial, San Bernardino County 2023

DUDEK

0 40 80 Feet
0 10 20 Meters
1:1,000

FIGURE 2

Project Site

5th Street and Central Avenue Warehouse Project

Appendix B (Confidential)

SCCIC Records Search Results

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Appendix C (Non-Confidential)

Previously Recorded Cultural Resources Bibliography

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Primary (P-19-)	Trinomial (CA-SB-)	Age	Resource Description	Recorded By/Year	Proximity to Proposed Project Site
P-36-013750	-	Historic	Building, Structure, Site	2007 (Alexandrowicz, ACS)	Outside
P-36-015550	-	Historic	Building	1990 (Schmuecker, Mariani & Associates)	Outside
P-36-015554	-	Historic	Building	1990 (Schmuecker, Mariani & Associates)	Outside
P-36-015555	-	Historic	Building	1990 (Schmuecker, Mariani & Associates)	Outside
P-36-019635	-	Historic	Building	2000	Outside
P-36-019642	-	Historic	Building	2000	Outside
P-36-025803	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025804	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025805	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025806	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025807	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025808	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025809	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025810	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside

Primary (P-19-)	Trinomial (CA-SB-)	Age	Resource Description	Recorded By/Year	Proximity to Proposed Project Site
P-36-025811	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025812	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025813	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025814	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025815	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside
P-36-025816	-	Historic	Building	2011 (Ballester, D., CRM Tech)	Outside

Appendix D

NAHC SLF Search Results

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NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

April 14, 2021

Jennifer De Alba
Dudek

Via Email to: jdealba@dudek.com

Re: 13228 6th & Victoria Ave Warehouse Project, San Bernardino County

Dear Ms. De Alba:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the San Manuel Band of Mission Indians on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Appendix F
Geotechnical Report

Geotechnical Engineering Investigation
Proposed Industrial Warehouse Development
26811 5th Street
Highland, California

Patriot Development Partners
12126 W. Sunset Boulevard
Los Angeles, California 90049-4145

Attn: Mr. Kevin Rice

Project Number 23536-22
December 29, 2022

NorCal Engineering

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NorCal Engineering

Soils and Geotechnical Consultants
10641 Humbolt Street Los Alamitos, CA 90720
(562) 799-9469 Fax (562) 799-9459

December 29, 2022 Project Number 23536-22

Patriot Development Partners
12126 W. Sunset Boulevard
Los Angeles, California 90049-4145

Attn: Kevin Rice

RE: **Geotechnical Engineering Investigation** - Proposed Industrial Warehouse Development - Located at 26811 5th Street, in the City of Highland, California

Dear Mr. Rice:

Pursuant to your request, this firm has performed a Geotechnical Engineering Investigation for the above referenced project in accordance with your approval of our proposal dated September 19, 2022. The purpose of this investigation is to evaluate the geotechnical conditions of the subject site and to provide recommendations for the construction of a proposed industrial warehouse development.

The scope of work included the following: 1) site reconnaissance; 2) subsurface geotechnical exploration and sampling; 3) laboratory testing; 4) soil infiltration testing; 5) engineering analysis of field and laboratory data; 6) preparation of a geotechnical engineering report. It is the opinion of this firm that the proposed development is feasible from a geotechnical standpoint provided that the recommendations presented in this report are followed in the design and construction of the project.

1.0 Project Description

It is proposed to construct an industrial warehouse development consisting of 54,797 square feet building on the subject site as shown on the attached Site Plan (figure 1). The proposed concrete tilt-up building will be supported by a conventional slab-on-grade foundation system with perimeter-spread footings and isolated interior footings. Other improvements will include asphalt and concrete pavement areas, hardscape and landscaping. It is assumed that the proposed grading for the development will include cut and fill procedures on the order of a few feet to achieve finished grade elevations. Final building plans shall be reviewed by this firm prior to submittal for city approval to determine the need for any additional study and revised recommendations pertinent to the proposed development, if necessary.

2.0 Site Description

The subject property is located within the 26000 block and south side of 5th Street, in the City of Highland. The generally rectangular shaped parcel is elongated in an east to west direction with topography of the relatively level site descending gradually from north to south on the order of a few feet. The northwest corner of the site is currently occupied by a single-story wood framed residence. The east end of the lot was found to be overlain with base material and is currently being utilized as a storage yard, the remaining portion of the site is currently vacant and contains some light, natural vegetation.

3.0 Site Exploration

The investigation consisted of the placement of ten (10) subsurface exploratory trenches by use of backhoe and hand operated equipment to depths of approximately 5 and 18 feet below current ground elevations. The trenches were placed at accessible locations throughout the property. The explorations were visually classified and logged by a field engineer with locations of the subsurface explorations shown on the attached plan.

The exploratory trenches revealed the existing earth materials to consist of fill and natural soil. Detailed descriptions of the subsurface conditions are listed on the boring logs in Appendix A. It should be noted that the transition from one soil type to another as shown on the trench logs is approximate and may in fact be a gradual transition. The soils encountered are described as follows:

Fill: A fill soil classifying as a brown, fine to medium grained, silty SAND with occasional gravel to a slightly silty, fine to coarse grained SAND with gravel and occasional small cobble was encountered across the site to depths ranging from 1 to 2 feet below ground surface. These soils were noted to loose and dry. Minor amounts of rootlets, asphalt and concrete debris were encountered across the site.

Natural: A natural undisturbed soil classifying as a brown fine to medium grained silty SAND to a light brown slightly silty, fine to coarse grained SAND with gravel and occasional cobble was encountered beneath the upper fill soils. The native soils as encountered were observed to be medium dense and dry to damp.

The overall engineering characteristics of the earth material were relatively uniform with each excavation. Groundwater was not encountered to the depth of our trenches and minor caving occurred in the deeper cohesionless soils. Historic high groundwater in the vicinity has been recorded greater than 65 feet below grade at a nearby well located approximately 0.6 miles to the west of the subject site, as given on the California Department of Water Recourses database http://www.water.ca.gov/waterdatalibrary/ (State well numbers 01S03W05N006S). Additionally, local groundwater maps (Carson & Matti 1982), record historic groundwater depths in excess of 100 feet.

4.0 Laboratory Tests

Relatively undisturbed samples of the subsurface soils were obtained to perform laboratory testing and analysis for direct shear, consolidation tests, and to determine in-place moisture/densities. These relatively undisturbed ring samples were obtained by driving a thin-walled steel sampler lined with one-inch-long brass rings with an inside diameter of 2.42 inches into the undisturbed soils. Bulk bag samples were obtained in the upper soils for expansion index tests and maximum density tests. All test results are included in Appendix B, unless otherwise noted.

4.1 **Field Moisture Content** (ASTM: D 2216) and the dry density of the ring samples were determined in the laboratory. This data is listed on the logs of explorations.

4.2 **Maximum Density tests** (ASTM: D 1557) were performed on typical samples of the upper soils. Results of these tests are shown on Table I.

4.3 **Expansion Index tests** (ASTM: D 4829) were performed on remolded samples of the upper soils to determine expansive characteristics. Results of these tests are provided on Table II.

4.4 **Corrosion tests** consisting of sulfate, pH, resistivity and chloride analysis to determine potential corrosive effects of soils on concrete and underground utilities. Test results are provided on Table III.

4.5 **R-Value test** per California Test Method 301 was performed on a representative sample, which may be anticipated to be near subgrade to determine pavement design. Results are provided within the pavement design section of the report.

4.6 **Direct Shear tests** (ASTM: D 3080) were performed on undisturbed and/or remolded samples of the subsurface soils. The test is performed under saturated conditions at loads of 1,000 lbs./sq.ft., 2,000 lbs./sq.ft., and 3,000 lbs./sq.ft. with results shown on Plate A to B.

4.7 **Consolidation tests** (ASTM: D 2435) were performed on undisturbed samples to determine the differential and total settlement which may be anticipated based upon the proposed loads. Water was added to the samples at a surcharge of one KSF and the settlement curves are plotted on Plates C to D.

5.0 Seismicity Evaluation

The proposed development lies outside of any Alquist Priolo Special Studies Zone and the potential for damage due to direct fault rupture is considered unlikely. The San Andreas Fault (San Bernardino Segment) is located approximately 6 kilometers from the site and is capable of producing a Magnitude 7.4 earthquake. Ground shaking originating from earthquakes along other active faults in the region is expected to induce lower horizontal accelerations due to smaller anticipated earthquakes and/or greater distances to other faults.

The seismic design acceleration parameters are provided below and are based on the 2019 California Building Code (CBC) for the referenced project. The data was obtained from the American Society of Civil Engineers (ASCE) website, https://asce7hazardtool.online/ and is attached in Appendix C.

Seismic Design Acceleration Parameters

Latitude	34.107
Longitude	-117.219
Site Class	D
Risk Category	II
Mapped Spectral Response Acceleration	S_S = 2.339 S_1 = 0.865
Adjusted Maximum Acceleration	S_{MS} = 2.339
Design Spectral Response Acceleration Parameters	S_{DS} = 1.56
Peak Ground Acceleration	PGA_M = 1.06

Use of these values is dependent on requirements of ASCE 7-16, 11-4.8, Exception 2 that requires the value of the seismic response coefficient C_s be determined by Equation 12.8.2 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either 12.8-3 for $T_L \geq T \geq 1.5T_s$ or Equation 12.8-4 for $T > T_L$. Computations and verification of these conditions is referred to the structural engineer.

6.0 Liquefaction Evaluation

The site is expected to experience ground shaking and earthquake activity that is typical of the Southern California area. It is during severe shaking that loose, granular soils below the groundwater table can liquefy. Based on review of the *County of San Bernardino County Land Use Plan – General Plan – Geologic Hazard Overlays (2009)*, the site lies *outside* a zone of "Suspected Liquefaction Susceptibility". A copy of the County of San Bernardino County Land Use Plan – General Plan – Geologic Hazard Overlays (2009) is attached in Appendix C. Additionally, based on review of local groundwater maps, the depth of groundwater is in excess of 100 feet (Carson & Matti 1982). Thus, the design of the proposed construction in conformance with the latest Building Code provisions for earthquake design is expected to provide mitigation of ground shaking hazards that are typical to Southern California.

7.0 Infiltration Characteristics

Infiltration tests within the site were performed to provide preliminary infiltration rates for the purpose of planning and design of an on-site water disposal system. The infiltration tests consisted of the double ring infiltration test per ASTM Method D 3385 with test results given in Appendix D. Based upon the results of our testing, the soils encountered in the planned on-site drainage disposal system area exhibit the following infiltration rates.

Boring/Test No.	Depth	Soil Classification	Field Infiltration Rate
T-1/TH-1	10'	Slightly Silty SAND	88.2 in/hr
T-2/TH-2	10'	Slightly Silty SAND	39.3 in/hr

Based on the results of our field testing, the subsurface soils encountered in the proposed on-site drainage disposal system shall utilize the design infiltration rates based on the safety factor required by the county standard. All systems must meet the latest city and/or county specifications and the California Regional Water Quality Control Board (CRWQCB) requirements.

Foundations shall be setback a minimum distance of 10 feet from the drainage disposal system and the bottom of footing shall be a minimum of 10 feet from the expected zone of saturation. The boundary of the zone of saturation may be assumed to project downward from the top of the permeable portion of the disposal system at an inclination of 1 to 1 or flatter, as determined by the geotechnical engineer.

8.0 Conclusions and Recommendations

Based upon our evaluations, the proposed development is acceptable from a geotechnical engineering standpoint. By following the recommendations and guidelines set forth in our report, the structures will be safe from excessive settlements under the anticipated design loadings and conditions. The proposed development shall meet all requirements of the City Building Ordinance and will not impose any adverse effect on existing adjacent structures.

The following recommendations are based upon soil conditions encountered in our field investigation; these near-surface soil conditions could vary across the site. Variations in the soil conditions may not become evident until the commencement of grading operations for the proposed development and revised recommendations from the soils engineer may be necessary based upon the conditions encountered.

It is recommended that site inspections be performed by a representative of this firm during all grading and construction of the development to verify the findings and recommendations documented in this report. Any unusual conditions which may be encountered in the course of the project development may require the need for additional study and revised recommendations.

8.1 Site Grading Recommendations

Any vegetation and/or demolition debris shall be removed and hauled from proposed grading areas prior to the start of grading operations. Existing vegetation shall not be mixed or disced into the soils. Any removed soils may be reutilized as compacted fill once any deleterious material or oversized materials (in excess of eight inches) is removed. Grading operations shall be performed in accordance with the attached *Specifications for Placement of Compacted Fill*.

8.1.1 Removal and Recompaction Recommendations

All disturbed soils and/or fill (about 1 to 2 feet below ground surface) shall be removed to competent native material, the exposed surface scarified to a depth of 12 inches, brought to within 2% of optimum moisture content and compacted to a minimum of 90% of the laboratory standard (ASTM: D-1557) prior to placement of any additional compacted fill soils, foundations, slabs-on-grade and pavement. The upper 12 inches of soils beneath building pad and concrete paving shall be compacted to a minimum of 95% of the laboratory standard. Grading shall extend a minimum of five horizontal feet outside the edges of foundations or equidistant to the depth of fill placed, whichever is greater.

The site is underlain by alluvium generally composed of gravels, cobbles and boulders in a silty sand matrix. Oversized materials are anticipated to be encountered during grading operations. The proposed building pad shall be graded with cobbles up to 6-inch minus blended uniformly with soils in the upper one foot beneath pad grade and within planned utility/foundation areas. Rock size up to 12 inches blended uniformly with soils shall be placed below two feet of more below grade. All fill will be required to be placed in suitable lifts, moisture conditioned and compacted to a minimum of 90% of the laboratory standard.

It is possible that isolated areas of undiscovered fill not described in this report are present on site; if found, these areas should be treated as discussed earlier. A diligent search shall also be conducted during grading operations in an effort to uncover any underground structures, irrigation or utility lines. If encountered, these structures and lines shall be either removed or properly abandoned prior to the proposed construction.

Any imported fill material should be preferably soil similar to the upper soils encountered at the subject site. All soils shall be approved by this firm prior to importing at the site and will be subjected to additional laboratory testing to assure concurrence with the recommendations stated in this report.

If placement of slabs-on-grade and pavement is not completed immediately upon completion of grading operations, additional testing and grading of the areas may be necessary prior to continuation of construction operations. Likewise, if adverse weather conditions occur which may damage the subgrade soils, additional assessment by the soils engineer as to the suitability of the supporting soils may be needed.

Care should be taken to provide or maintain adequate lateral support for all adjacent improvements and structures at all times during the grading operations and construction phase. Adequate drainage away from the structures, pavement and slopes should be provided at all times.

8.1.2 **Fill Blanket Recommendations**

Due to the potential for differential settlement of foundations placed on compacted fill and native materials, it is recommended that all foundations including floor slab areas be underlain by a uniform compacted fill blanket at least two feet in thickness. This fill blanket shall extend a minimum of five horizontal feet outside the edges of foundations or equidistant to the depth of fill placed, whichever is greater.

8.2 **Shrinkage and Subsidence**

The site is underlain by alluvium generally composed of gravels, cobbles and boulders blended with a sand matrix. It is our experience that a loss of volume from oversize rock will be anticipated. Results of our in-place density tests reveal that the soil shrinkage of the matrix will be on the order of 5 to 10% due to excavation and recompaction, based upon the assumption that the fill is compacted to 92% of the maximum dry density per ASTM standards. Subsidence should be 0.2 feet due to earthwork operations.

The volume change does not include any allowance for vegetation or organic stripping, removal of subsurface improvements, or topographic approximations. Although these values are only approximate, they represent our best estimate of lost yardage, which will likely occur during grading. If more accurate shrinkage and subsidence factors are needed, it is recommended that field testing the actual equipment and grading techniques should be conducted.

8.3 **Temporary Excavations**

Temporary *unsurcharged* excavations in the existing site materials may be made at vertical inclinations up to 4 feet in height unless cohesionless soils are encountered. In areas where soils with little or no binder are encountered, where adverse geological conditions are exposed, or where excavations are adjacent to existing structures, shoring or flatter excavations may be required. The temporary cut slope gradients given above do not preclude local raveling and sloughing.

All excavations shall be made in accordance with the requirements of the soils engineer, CAL-OSHA and other public agencies having jurisdiction. Care should be taken to provide or maintain adequate lateral support for all adjacent improvements and structures at all times during the grading operations and construction phase.

8.4 Foundation Design

All foundations may be designed utilizing the following allowable bearing capacities for an embedded depth of 18 inches into approved engineered fill with the corresponding widths:

Allowable Bearing Capacity (psf)		
Width (feet)	Continuous Foundation	Isolated Foundation
1.5	2000	2500
2.0	2075	2575
4.0	2375	2875
6.0	2500	3000

The bearing value may be increased by 500 psf for each additional foot of depth in excess of the 18-inch minimum depth, up to a maximum of 4,000 psf. A one-third increase may be used when considering short-term loading and seismic forces.

Any foundations located along property line may utilize an allowable bearing capacity of 1,500 psf and embedded into competent native soils. A modulus of subgrade reaction (k) of 200 pci may be used for design of slabs placed on engineered fill soils supporting sustained concentrated loads. A representative of this firm shall inspect all foundation excavations prior to pouring concrete.

8.5 Settlement Analysis

Resultant pressure curves for the consolidation tests are shown on Plates B to C. Computations utilizing these curves and the recommended allowable soil bearing capacities reveal that the foundations will experience settlements on the order of ¾ inch and differential settlements of less than ¼ inch.

8.6 **Lateral Resistance**

The following values may be utilized in resisting lateral loads imposed on the structure. Requirements of the California Building Code should be adhered to when the coefficient of friction and passive pressures are combined.

Coefficient of Friction - 0.40

Equivalent Passive Fluid Pressure = 250 lbs./cu.ft.

Maximum Passive Pressure = 2,500 lbs./cu.ft.

The passive pressure recommendations are valid only for approved compacted fill soils or competent native materials.

8.7 **Retaining Wall Design Parameters**

Active earth pressures against retaining walls will be equal to the pressures developed by the following fluid densities. These values are for **granular backfill material** placed behind the walls at various ground slopes above the walls.

Surface Slope of Retained Materials (Horizontal to Vertical	Equivalent Fluid Density (lb./cu.ft.)
Level	30
5 to 1	35
4 to 1	38
3 to 1	40
2 to 1	45

Any applicable short-term construction surcharges and seismic forces should be added to the above lateral pressure values. An equivalent fluid pressure of 45 pcf may be utilized for the restrained wall condition with a level grade behind the wall.

The seismic-induced lateral soil pressure for walls greater than 6 feet may be computed using a triangular pressure distribution with the maximum value at the top of the wall. The maximum lateral pressure of (20 pcf) H where H is the height of the retained soils above the wall footing should be used in final design of retaining walls. Sliding resistance values and passive fluid pressure values may be increased by 1/3 during short-term wind and seismic loading conditions.

All walls shall be waterproofed as needed and protected from hydrostatic pressure by a reliable permanent subdrain system. The granular backfill to be utilized immediately adjacent to retaining walls shall consist of an approved select granular soil with a sand equivalency greater than 30. This backfill zone of free draining material shall consist of a wedge beginning a minimum of one horizontal foot from the base of the wall extending upward at an inclination of no less than ¾ to 1 (horizontal to vertical).

8.8 **Slab Design**

All concrete slabs shall be a minimum of six inches in thickness in the proposed warehouse areas and four inches in office and hardscape and placed on approved subgrade soils compacted to a minimum of 95% of the laboratory standard in the upper 12 inches. Additional reinforcement requirements and an increase in thickness of the slabs-on-grade may be necessary based upon soils expansion potential and proposed loading conditions in the structures and should be evaluated further by the project engineers and/or architect.

A vapor retarder (10-mil minimum thickness) should be utilized in areas which would be sensitive to the infiltration of moisture. This retarder shall meet requirements of ASTM E 96, *Water Vapor Transmission of Materials* and ASTM E 1745, *Standard Specification for Water Vapor Retarders used in Contact with Soil or Granular Fill Under Concrete Slabs.* The vapor retarder shall be installed in accordance with procedures stated in ASTM E 1643, *Standard practice for Installation of Water Vapor Retarders used in Contact with Earth or Granular Fill Under Concrete Slabs.*

The moisture retarder may be placed directly upon compacted subgrade soils conditioned to near optimum moisture levels, although one to two inches of sand beneath the membrane is desirable. The subgrade upon which the retarder is placed shall be smooth and free of rocks, gravel or other protrusions which may damage the retarder. Use of sand above the retarder is under the purview of the structural engineer; if sand is used over the retarder, it should be placed in a dry condition.

8.9 **Pavement Section Design**

The table below provides a preliminary pavement design based upon an R-Value of 80 for the subgrade soils for the proposed pavement areas. Final pavement design may need to be based on R-Value testing of the subgrade soils near the conclusion of site grading to assure that these soils are consistent with those assumed in this preliminary design. *The recommendations are based upon estimated traffic loads. Client should submit any other anticipated traffic loadings to the geotechnical engineer, if necessary, so that pavement sections may be reviewed to determine adequacy to support the proposed loadings.*

Type of Traffic	Traffic Index	Asphalt (in.)	Base Material (in.)
Automobile Parking Stalls	4.0	3.0	3.0
Light Vehicle Circulation Areas	5.5	3.5	5.0
Heavy Truck Access Areas	7.0	4.0	8.0

Any concrete slab-on-grade in pavement areas shall be a *minimum* of six inches in thickness and may be placed on approved subgrade soils.

All pavement areas shall have positive drainage toward an approved outlet from the site. Drain lines behind curbs and/or adjacent to landscape areas should be considered by client and the appropriate design engineers to prevent water from infiltrating beneath pavement. If such infiltration occurs, damage to pavement, curbs and flow lines, especially on sites with expansive soils, may occur during the life of the project.

Any approved base material shall consist of a Class II aggregate or equivalent and should be compacted to a minimum of 95% relative compaction. All pavement materials shall conform to the requirements set forth by the City of Fontana. The base material; and asphaltic concrete should be tested prior to delivery to the site and during placement to determine conformance with the project specifications. A pavement engineer shall designate the specific asphalt mix design to meet the required project specifications.

8.10 **Utility Trench and Excavation Backfill**

Trenches from installation of utility lines and other excavations may be backfilled with on-site soils or approved imported soils compacted to a minimum of 90% relative compaction. All utility lines shall be properly bedded with clean sand having a sand equivalency rating of 30 or more. This bedding material shall be thoroughly water jetted around the pipe structure prior to placement of compacted backfill soils.

8.11 **Corrosion Design Criteria**

Representative samples of the surficial soils, typical of the subgrade soils expected to be encountered within foundation excavations and underground utilities were tested for corrosion potential. The minimum resistivity value obtained for the samples tested is representative of an environment that may be severely corrosive to metals. The soil pH value was considered mildly alkaline and may not have a significant effect on soil corrosivity. Consideration should be given to corrosion protection systems for buried metal such as protective coatings, wrappings or the use of PVC where permitted by local building codes.

According to Table 4.3.1 of ACI 318 Building Code and Commentary, these contents revealed negligible sulfate concentrations. Therefore, a Type II cement according to latest CBC specifications may be utilized for building foundations at this time. It is recommended that additional sulfate tests be performed at the completion of site grading to assure that the as graded conditions are consistent with the recommendations stated in this design. Corrosion test results may be found on the attached Table IV.

8.12 **Expansive Soil**

On-site soils are very low in expansion potential (EI 0-20). When soils have an expansion index (EI) of 20 or more, special attention should be given to the project design and maintenance. The attached *Expansive Soil Guidelines* should be reviewed by the engineers, architects, owner, maintenance personnel and other interested parties and considered during the design of the project and future property maintenance. Expansion test results may be found on the attached Table II.

9.0 Closure

The recommendations and conclusions contained in this report are based upon the soil conditions uncovered in our test excavations. No warranty of the soil condition between our excavations is implied. NorCal Engineering should be notified for possible further recommendations if unexpected to unfavorable conditions are encountered during construction phase. It is the responsibility of the owner to ensure that all information within this report is submitted to the Architect and appropriate Engineers for the project.

A preconstruction conference should be held between the developer, general contractor, grading contractor, city inspector, architect, and soil engineer to clarify any questions relating to the grading operations and subsequent construction. Our representative should be present during the grading operations and construction phase to certify that such recommendations are complied within the field.

This geotechnical investigation has been conducted in a manner consistent with the level of care and skill exercised by members of our profession currently practicing under similar conditions in the Southern California area. No other warranty, expressed or implied is made.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING

Keith D. Tucker
Project Engineer
R.G.E. 841

REGISTERED PROFESSIONAL ENGINEER
KEITH D. TUCKER
No. 841
Exp. 12/31/2024
GEOTECHNICAL
STATE OF CALIFORNIA

Mike Barone
Project Manager

SPECIFICATIONS FOR PLACEMENT OF COMPACTED FILL

Excavation

Any existing low-density soils and/or saturated soils shall be removed to competent natural soil under the inspection of the Geotechnical Engineering Firm. After the exposed surface has been cleansed of debris and/or vegetation, it shall be scarified until it is uniform in consistency, brought to the proper moisture content and compacted to a minimum of 90% relative compaction (in accordance with ASTM: D 1557).

In any area where a transition between fill and native soil or between bedrock and soil are encountered, additional excavation beneath foundations and slabs will be necessary in order to provide uniform support and avoid differential settlement of the structure.

Material for Fill

The on-site soils or approved import soils may be utilized for the compacted fill provided they are free of any deleterious materials and shall not contain any rocks, brick, asphaltic concrete, concrete or other hard materials greater than eight inches in maximum dimensions. Any import soil must be approved by the Geotechnical Engineering firm a minimum of 72 hours prior to importation of site.

Placement of Compacted Fill Soils

The approved fill soils shall be placed in layers not excess of six inches in thickness. Each lift shall be uniform in thickness and thoroughly blended. The fill soils shall be brought to within 2% of the optimum moisture content, unless otherwise specified by the Soils Engineering firm. Each lift shall be compacted to a minimum of 90% relative compaction (in accordance with ASTM: D 1557) and approved prior to the placement of the next layer of soil. Compaction tests shall be obtained at the discretion of the Geotechnical Engineering firm but to a minimum of one test for every 500 cubic yards placed and/or for every 2 feet of compacted fill placed.

The minimum relative compaction shall be obtained in accordance with accepted methods in the construction industry. The final grade of the structural areas shall be in a dense and smooth condition prior to placement of slabs-on-grade or pavement areas. No fill soils shall be placed, spread or compacted during unfavorable weather conditions. When the grading is interrupted by heavy rains, compaction operations shall not be resumed until approved by the Geotechnical Engineering firm.

Grading Observations

The controlling governmental agencies should be notified prior to commencement of any grading operations. This firm recommends that the grading operations be conducted under the observation of a Soils Engineering firm as deemed necessary. A 24-hour notice must be provided to this firm prior to the time of our initial inspection.

Observation shall include the clearing and grubbing operations to assure that all unsuitable materials have been properly removed; approve the exposed subgrade in areas to receive fill and in areas where excavation has resulted in the desired finished grade and designate areas of overexcavation; and perform field compaction tests to determine relative compaction achieved during fill placement. In addition, all foundation excavations shall be observed by the Soils Engineering firm to confirm that appropriate bearing materials are present at the design grades and recommend any modifications to construct footings.

EXPANSIVE SOIL GUIDELINES

The following expansive soil guidelines are provided for your project. The intent of these guidelines is to inform you, the client, of the importance of proper design and maintenance of projects supported on expansive soils. ***You, as the owner or other interested party, should be warned that you have a duty to provide the information contained in the soil report including these guidelines to your design engineers, architects, landscapers and other design parties in order to enable them to provide a design that takes into consideration expansive soils.***

In addition, you should provide the soil report with these guidelines to any property manager, lessee, property purchaser or other interested party that will have or assume the responsibility of maintaining the development in the future.

Expansive soils are fine-grained silts and clays which are subject to swelling and contracting. The amount of this swelling and contracting is subject to the amount of fine-grained clay materials present in the soils and the amount of moisture either introduced or extracted from the soils. Expansive soils are divided into five categories ranging from "very low" to "very high". Expansion indices are assigned to each classification and are included in the laboratory testing section of this report. *If the expansion index of the soils on your site, as stated in this report, is 21 or higher, you have expansive soils.* The classifications of expansive soils are as follows:

Classification of Expansive Soil*

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

*From Table 18A-I-B of California Building Code (1988)

When expansive soils are compacted during site grading operations, care is taken to place the materials at or slightly above optimum moisture levels and perform proper compaction operations. Any subsequent excessive wetting and/or drying of expansive soils will cause the soil materials to expand and/or contract. These actions are likely to cause distress of foundations, structures, slabs-on-grade, sidewalks and pavement over the life of the structure. ***It is therefore imperative that even after construction of improvements, the moisture contents are maintained at relatively constant levels, allowing neither excessive wetting or drying of soils.***

Evidence of excessive wetting of expansive soils may be seen in concrete slabs, both interior and exterior. Slabs may lift at construction joints producing a trip hazard or may crack from the pressure of soil expansion. Wet clays in foundation areas may result in lifting of the structure causing difficulty in the opening and closing of doors and windows, as well as cracking in exterior and interior wall surfaces. In extreme wetting of soils to depth, settlement of the structure may eventually result. Excessive wetting of soils in landscape areas adjacent to concrete or asphaltic pavement areas may also result in expansion of soils beneath pavement and resultant distress to the pavement surface.

Excessive drying of expansive soils is initially evidenced by cracking in the surface of the soils due to contraction. Settlement of structures and on-grade slabs may also eventually result along with problems in the operation of doors and windows.

Projects located in areas of expansive clay soils will be subject to more movement and "hairline" cracking of walls and slabs than similar projects situated on non-expansive sandy soils. There are, however, measures that developers and property owners may take to reduce the amount of movement over the life the development. The following guidelines are provided to assist you in both design and maintenance of projects on expansive soils:

- Drainage away from structures and pavement is essential to prevent excessive wetting of expansive soils. Grades should be designed to the latest building code and maintained to allow flow of irrigation and rain water to approved drainage devices or to the street. Any "ponding" of water adjacent to buildings, slabs and pavement after rains is evidence of poor drainage; the installation of drainage devices or regrading of the area may be required to assure proper drainage. Installation of rain gutters is also recommended to control the introduction of moisture next to buildings. Gutters should discharge into a drainage device or onto pavement which drains to roadways.

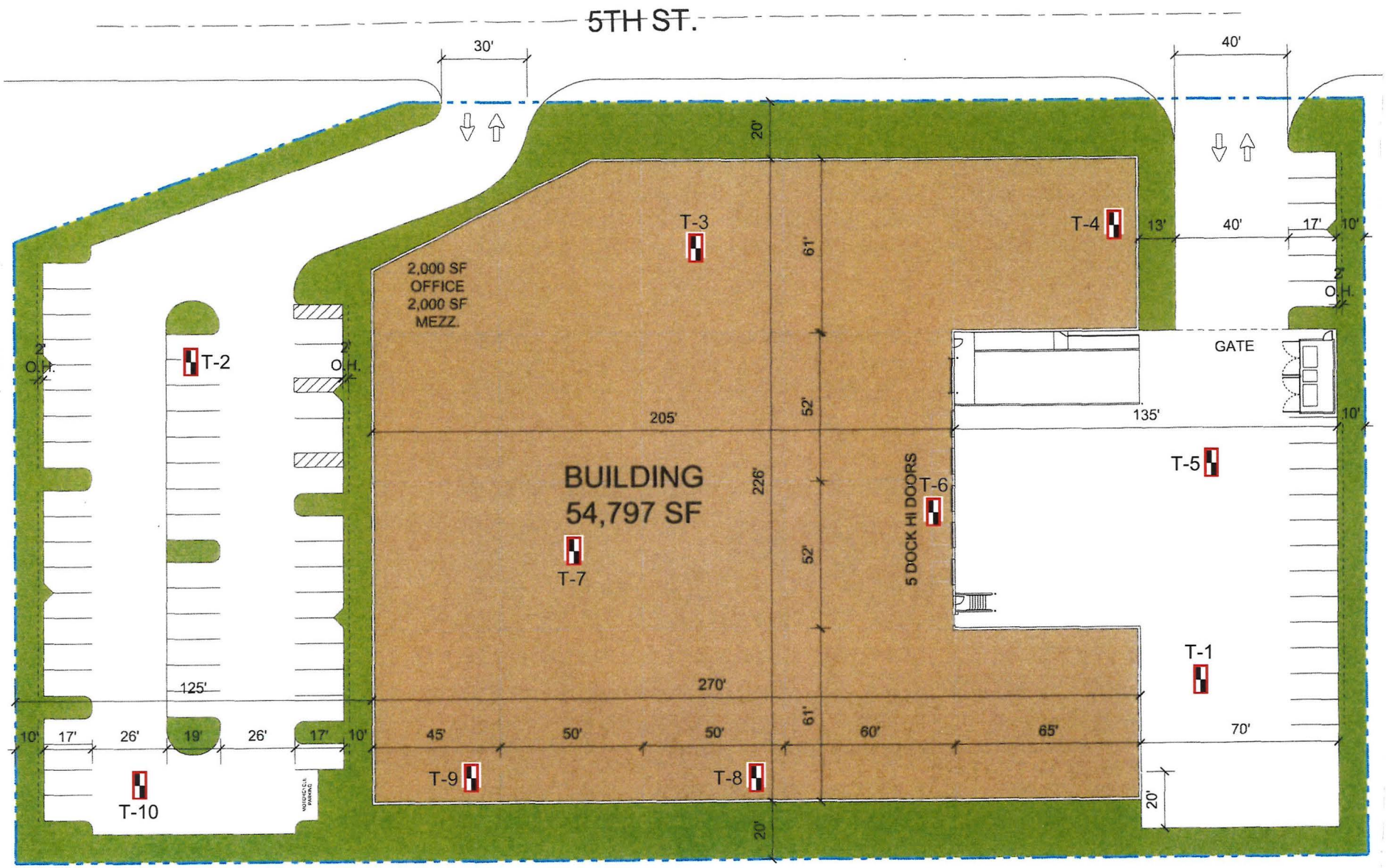
- Irrigation should be strictly controlled around building foundations, slabs and pavement and may need to be adjusted depending upon season. This control is essential to maintain a relatively uniform moisture content in the expansive soils and to prevent swelling and contracting. Over-watering adjacent to improvements may result in damage to those improvements. NorCal Engineering makes no specific recommendations regarding landscape irrigation schedules.

- Planting schemes for landscaping around structures and pavement should be analyzed carefully. Plants (including sod) requiring high amounts of water may result in excessive wetting of soils. Trees and large shrubs may actually extract moisture from the expansive soils, thus causing contraction of the fine-grained soils.

- Thickened edges on exterior slabs will assist in keeping excessive moisture from entering directly beneath the concrete. A six-inch thick or greater deepened edge on slabs may be considered. Underlying interior and exterior slabs with 6 to 12 inches or more of non-expansive soils and providing presaturation of the underlying clayey soils as recommended in the soil report will improve the overall performance of on-grade slabs.

- Increase the amount of steel reinforcing in concrete slabs, foundations and other structures to resist the forces of expansive soils. The precise amount of reinforcing should be determined by the appropriate design engineers and/or architects.

- Recommendations of the soil report should always be followed in the development of the project. Any recommendations regarding presaturation of the upper subgrade soils in slab areas should be performed in the field and verified by the Soil Engineer.



10' 0' 10' 25' 50'

SCALE: 1" = 50'

NorCal Engineering

SOILS AND GEOTECHNICAL CONSULTANTS

PATRIOT DEVELOPMENT PARTNERS

PROJECT: 23536-22 | DATE: DECEMBER 2022

SITE PLAN

(FIGURE 1)



NorCal Engineering SOILS AND GEOTECHNICAL CONSULTANTS	
PATRIOT DEVELOPMNET PARTNERS	
PROJECT: 23536-22	DATE: DECEMBER 2022

VICINITYMAP

(FIGURE 2)

List of Appendices
(in order of appearance)

Appendix A – Log of Excavations

Log of Trenches T-1 to T-10

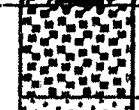
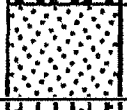
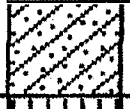
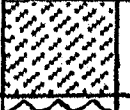
Appendix B – Laboratory Tests

Table I – Maximum Dry Density
Table II – Expansion
Table III – Corrosion
Plate A to B– Direct Shear
Plates C to D - Consolidation

Appendix C – ASCE Seismic Hazards Report

Appendix D – Soil Infiltration Data

Appendix A
Log of Excavations

MAJOR DIVISION			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL, SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINE (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

KEY:

 Indicates 2.5-inch Inside Diameter. Ring Sample.

 Indicates 2-inch OD Split Spoon Sample (SPT).

 Indicates Shelby Tube Sample.

 Indicates No Recovery.

 Indicates SPT with 140# Hammer 30 in. Drop.

 Indicates Bulk Sample.

 Indicates Small Bag Sample.

 Indicates Non-Standard

 Indicates Core Run.

COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Trace	1 - 5%
Few	5 - 10%
Little	10 - 20%
Some	20 - 35%
And	35 - 50%

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5mm) to No. 200 (0.074mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074 mm)

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
DAMP	Some perceptible moisture; below optimum
MOIST	No visible water; near optimum moisture content
WET	Visible free water, usually soil is below water table.

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N -VALUE

COHESIONLESS SOILS		COHESIVE SOILS		
Density	N (blows/ft)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	Very Soft	0 to 2	< 250
Loose	4 to 10	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	Very Stiff	15 to 30	2000 - 4000
		Hard	over 30	> 4000

Patriot Development Partners
23536-22

Log of Trench T-1

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to medium grained) SAND with gravel, occasional cobbles Brown, loose, dry					
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp					
5		Slightly Silty (fine to coarse grained) SAND with gravel, occasional small cobbles Light brown, medium dense, damp					
		Slightly Silty (fine to medium grained) SAND occasional gravel, cobble Light brown, medium dense, damp					
10					1.9		
		Trench completed at depth of 10'					
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

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23536-22

Log of Trench T-2

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to coarse grained) SAND occasional gravel, roots Brown, loose, dry					
		NATURAL Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobbles Light Brown, medium dense, damp					
5		Increase in gravel and cobble below 5'					
10		Trench completed at depth of 10'	☒		1.4		
15							
20							
25							
30							
35							

GWT not encountered

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23536-22

Log of Trench T-3

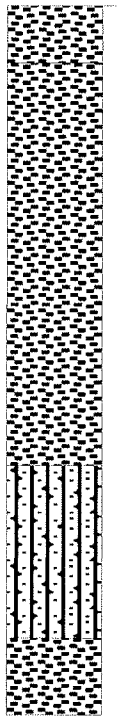
Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:



Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Slightly Silty (fine to coarse grained) SAND occasional gravel, cobble, asphaltic concrete, concrete Brown, loose, dry			1.1		
		NATURAL Slightly Silty (fine to coarse grained) SAND occasional small cobbles Light Brown, medium dense, dry to damp			0.6		
10			■		0.7	108.3	
		Slightly Silty (fine to medium grained) SAND Light brown, medium dense, moist					
15			■		9.5	100.3	
		Slightly Silty (fine to coarse grained) SAND with occasional gravel, cobble Light brown, medium dense, dry					
			■		0.7	122.3	
		Trench completed at depth of 18.5'					
20							
25							
30							
35							

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Log of Trench T-4

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples		Laboratory		
			Type	Blow Counts	Moisture	Dry Density	Fines Content %
0		FILL Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble and asphaltic concrete Brown, loose, dry			0.6		
		NATURAL Slightly Silty (fine to coarse grained) SAND occasional gravel Light Brown, medium dense, dry to damp			1.5	106.0	
5		Trench completed at depth of 5.5'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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23536-22

Log of Trench T-5

Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to medium grained) SAND with gravel, occasional asphaltic concrete, concrete, roots Brown, loose, dry	■		1.7	104.0	
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp					
5		Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobbles Light brown, medium dense, damp					
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

GWT not encountered

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23536-22

Log of Trench T-6

Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to medium grained) SAND occasional gravel, asphaltic concrete, cobble Brown, loose, dry	■		10.5	100.6	
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp					
5		Slightly Silty (fine to medium grained) SAND Light brown, medium dense, damp	■		2.2	100.2	
		Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble Light brown, medium dense, damp	■		2.6	103.6	
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

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Log of Trench T-7

Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to coarse grained) SAND occasional gravel, cobble Brown, loose, dry					
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp	■		0.4	111.6	
5		Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble Light brown, medium dense, dry to damp					
		GWT not encountered					
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

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23536-22

Log of Trench T-8

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples Type	Samples Blow Counts	Laboratory Moisture	Laboratory Dry Density	Laboratory Fines Content %
0		FILL Silty (fine to coarse grained) SAND with gravel, roots, occasional cobble Brown, loose, dry	■		1.1	103.5	
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp					
5		Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble Light brown, medium dense, dry to damp					
		GWT not encountered					
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

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Patriot Development Partners
23536-22

Log of Trench T-9

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples Type	Samples Blow Counts	Laboratory Moisture	Laboratory Dry Density	Laboratory Fines Content %
0		FILL Silty (fine to medium grained) SAND with gravel, occasional cobble Brown, loose, dry					
		NATURAL Slightly Silty (fine to coarse grained) SAND with gravel Light brown, medium dense, dry	■		0.5	105.3	
5		Occasional cobble below 7'	■		1.5	108.6	
10		Trench completed at depth of 10'					
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

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Patriot Development Partners
23536-22

Log of Trench T-10

Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to medium grained) SAND with gravel, occasional roots, cobble Brown, loose, dry					
		NATURAL Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble Brown, medium dense, dry to damp					
5		Trench completed at depth of 5'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Appendix B
Laboratory Tests

TABLE I
MAXIMUM DENSITY TESTS

Sample	Classification	Optimum Moisture (%)	Maximum Dry Density (lbs/cu.ft)
T-3 @ 2'	Slightly Silty SAND	7.0	128.0
T-5 @ 2'	Silty SAND	8.5	119.0

TABLE II
EXPANSION TESTS

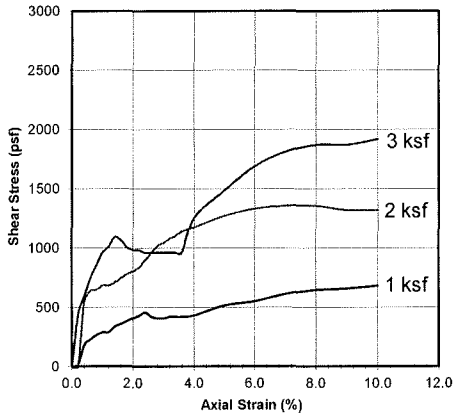
Sample	Classification	Expansion Index
T-5 @ 2'	Silty SAND	0

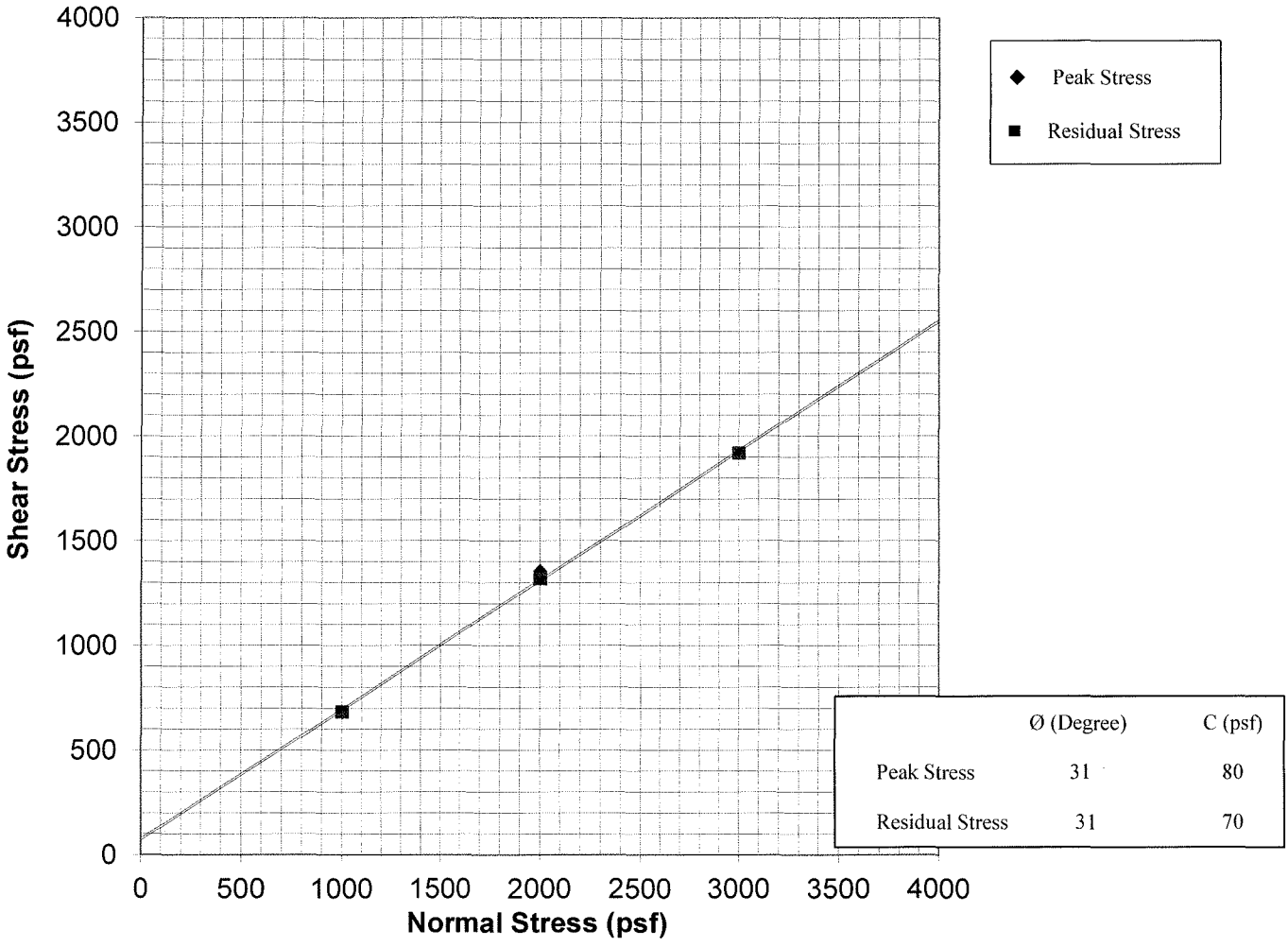
TABLE III
CORROSION TESTS

Sample	pH	Electrical Resistivity	Sulfate (%)	Chloride (ppm)
T-5 @ 2'	7.8	12,711	N.D.	102

% by weight
ppm – mg/kg
N.D. = Non-Detect

Sample No.		T6@2'		
Sample Type:		Undisturbed/Saturated		
Soil Description:		Silty Fine-Very Coarse Sand		
		1	2	3
Normal Stress	(psf)	1000	2000	3000
Peak Stress	(psf)	684	1356	1920
Displacement	(in)	0.250	0.175	0.250
Residual Stress	(psf)	684	1320	1920
Displacement	(in.)	0.250	0.250	0.250
In Situ Dry Density	(pcf)	100.6	100.6	100.6
In Situ Water Content	(%)	10.5	10.5	10.5
Saturated Water Content	(%)	24.9	24.9	24.9
Strain Rate	(in/min)	0.020	0.020	0.020





	Ø (Degree)	C (psf)
Peak Stress	31	80
Residual Stress	31	70

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SOILS AND GEOTECHNICAL CONSULTANTS

Patriot Development Partners

PROJECT NUMBER: 23536-22 DATE: 11/11/2022

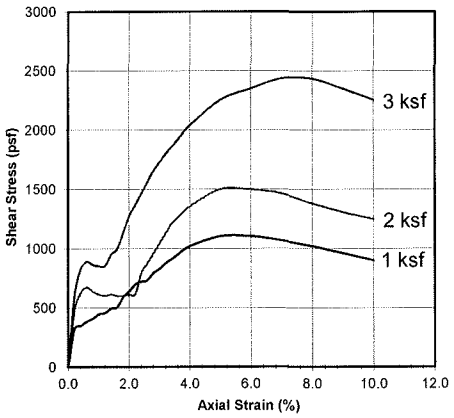
DIRECT SHEAR TEST

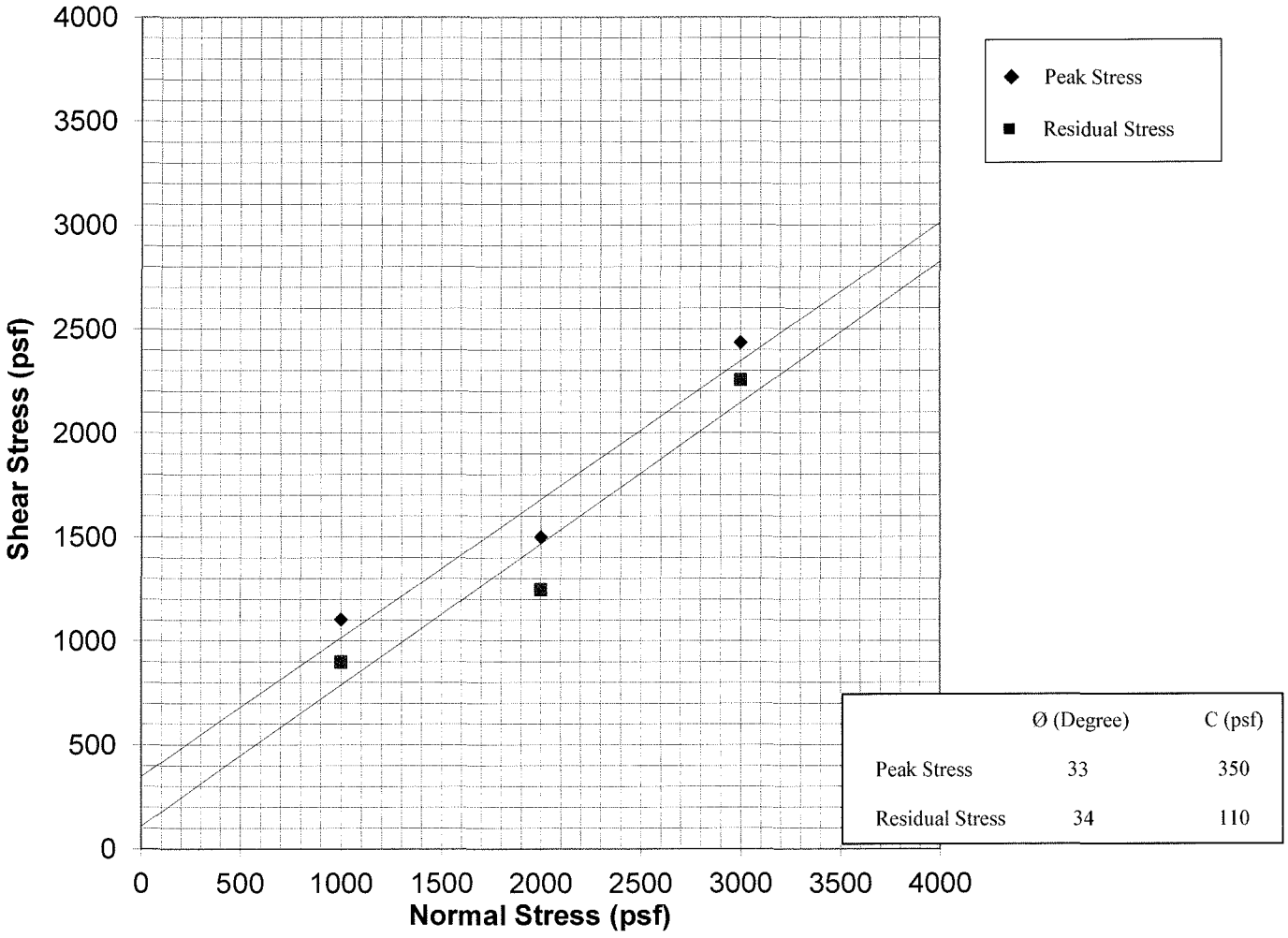
ASTM D3080

Plate A

Sample No.	T9@3'
Sample Type:	Undisturbed/Saturated
Soil Description:	Fine-Very Coarse Grained Sand w/ Trace Silt

		1	2	3
Normal Stress	(psf)	1000	2000	3000
Peak Stress	(psf)	1104	1500	2436
Displacement	(in.)	0.125	0.125	0.175
Residual Stress	(psf)	900	1248	2256
Displacement	(in.)	0.250	0.250	0.250
In Situ Dry Density	(pcf)	105.3	105.3	105.3
In Situ Water Content	(%)	0.5	0.5	0.5
Saturated Water Content	(%)	22.2	22.2	22.2
Strain Rate	(in/min)	0.020	0.020	0.020





	Ø (Degree)	C (psf)
Peak Stress	33	350
Residual Stress	34	110

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PROJECT NUMBER: 23536-22 DATE: 11/11/2022

DIRECT SHEAR TEST

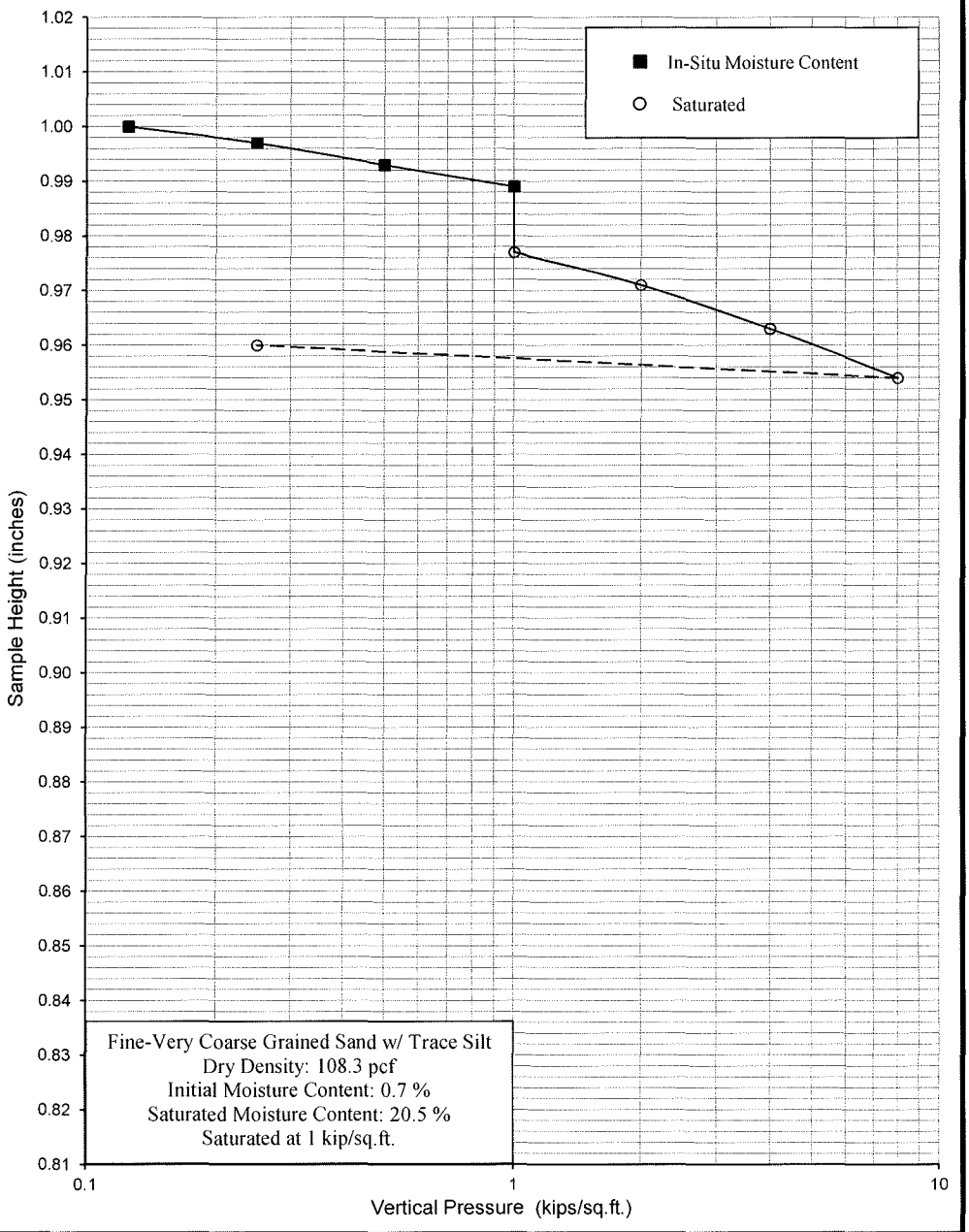
ASTM D3080

Plate B

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	
0.125	1.0000	0.0	
0.25	0.9970	0.3	
0.5	0.9930	0.7	
1	0.9890	1.1	
1	0.9770	2.3	Saturated
2	0.9710	2.9	
4	0.9630	3.7	
8	0.9540	4.6	
0.25	0.9600	4.0	

Sample No.	T3	Depth	10'	Date	11/11/2022

Date Tested: 10/31/2022
Sample: T3
Depth: 10'



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PROJECT NUMBER: 23536-22 DATE: 11/11/2022

CONSOLIDATION TEST

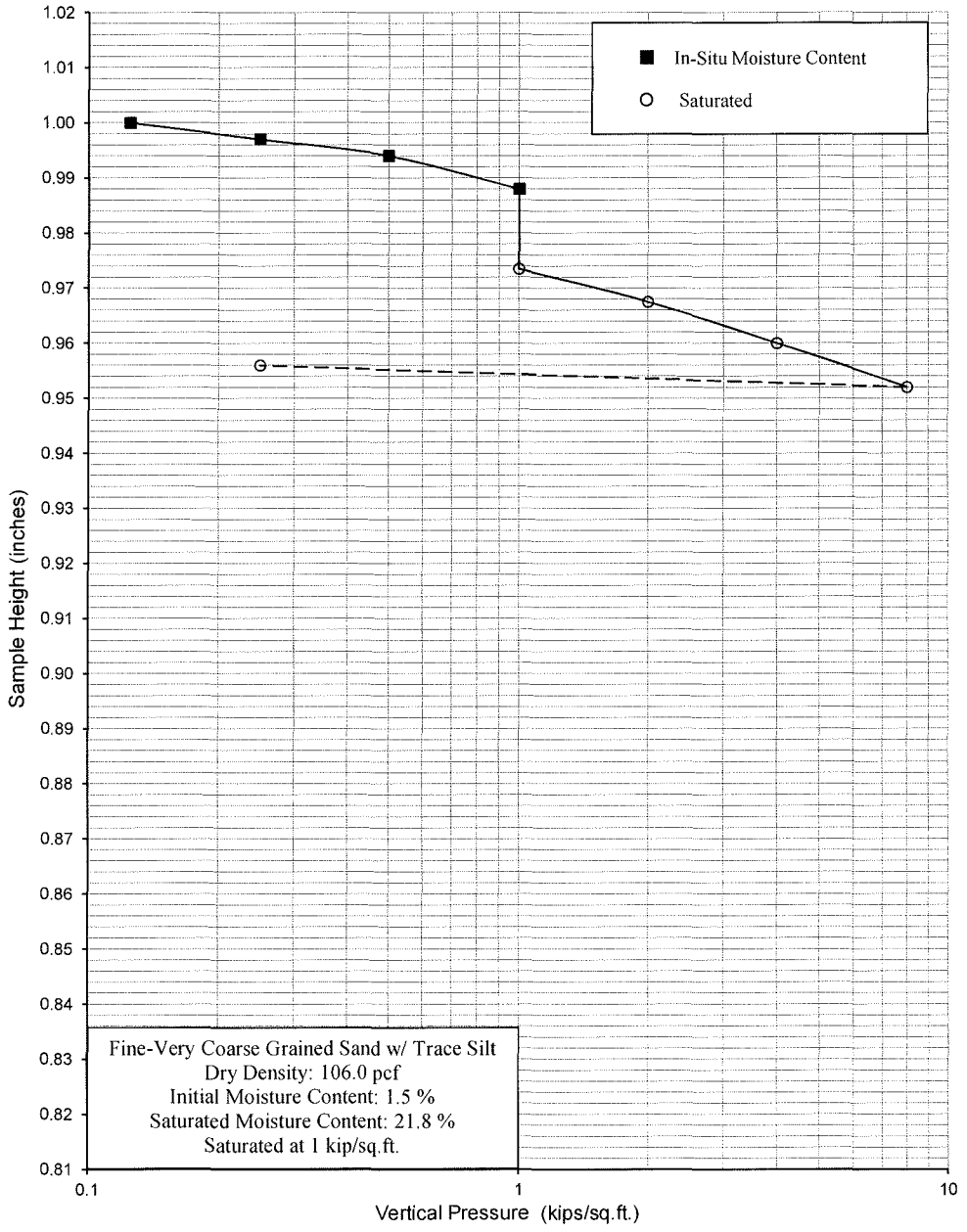
ASTM D2435

Plate C

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	
0.125	1.0000	0.0	
0.25	0.9970	0.3	
0.5	0.9940	0.6	
1	0.9880	1.2	
1	0.9735	2.7	Saturated
2	0.9675	3.3	
4	0.9600	4.0	
8	0.9520	4.8	
0.25	0.9560	4.4	

Sample No.	T4
Depth	5'
Date	11/11/2022

Date Tested: 10/31/2022
Sample: T4
Depth: 5'



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SOILS AND GEOTECHNICAL CONSULTANTS

Patriot Development Partners

PROJECT NUMBER: 23536-22 DATE: 11/11/2022

CONSOLIDATION TEST

ASTM D2435

Plate D

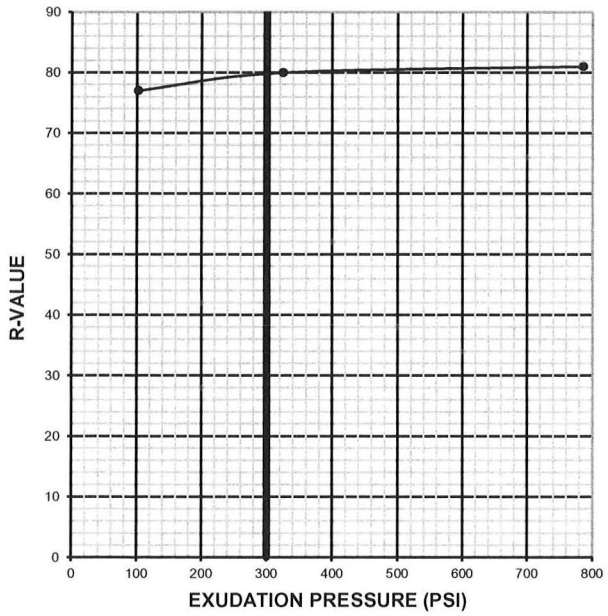
R-VALUE TEST REPORT

☑ CT-301 ☐ ASTM-D2844

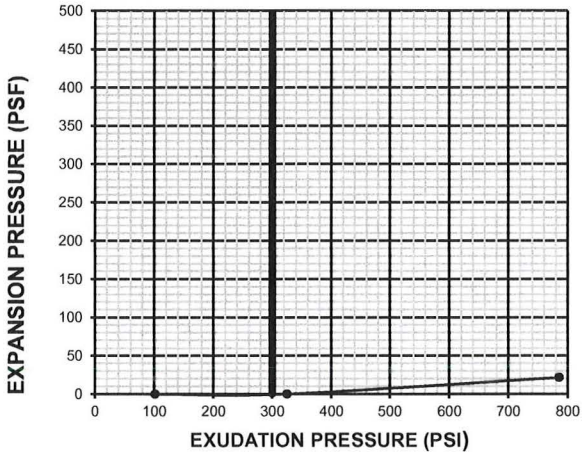
PROJECT NAME:	Norcal: Patriot Development Partners	PROJECT NUMBER:	L-221101
SAMPLE LOCATION:	26811 th Street, Highland, CA	SAMPLE NUMBER:	B1 (23536-22)
SAMPLE DESCRIPTION:	SILTY SAND (SM), brown	SAMPLE DEPTH:	1'
SAMPLED BY:	Norcal	TESTED BY:	JPG
		DATE TESTED:	11/17/2022

TEST SPECIMEN	A	B	C
MOISTURE AT COMPACTION %	9.7	8.6	7.9
WEIGHT OF SAMPLE, grams	1150	1122	1138
HEIGHT OF SAMPLE, Inches	2.60	2.57	2.62
DRY DENSITY, pcf	122.2	121.8	122.0
COMPACTOR AIR PRESSURE, psi	300	300	300
EXUDATION PRESSURE, psi	102	325	786
EXPANSION, Inches x 10exp-4	0	0	5
STABILITY Ph 2,000 lbs (160 psi)	20	16	15
TURNS DISPLACEMENT	5.45	5.68	5.74
R-VALUE UNCORRECTED	76	80	81
R-VALUE CORRECTED	77	80	81
EXPANSION PRESSURE (psf)	0.0	0.0	21.6

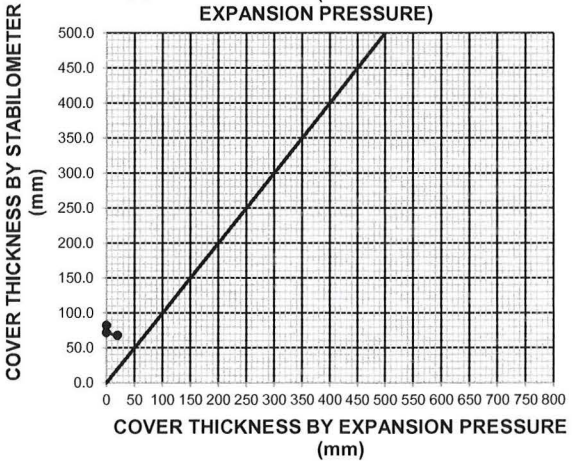
R-VALUE VS. EXUDATION PRESSURE



EXPANSION PRESSURE VS. EXUDATION PRESSURE



COVER THICKNESS (STABILOMETER BY EXPANSION PRESSURE)



R-VALUE AT EQUILIBRIUM:	80

R-VALUE BY EXUDATION PRESSURE:	80
R-VALUE BY EXPANSION PRESSURE:	N.A.
EXPANSION PRESSURE AT 300 PSI EXUDATION:	0
TRAFFIC INDEX (Assumed):	5.5
GRAVEL FACTOR (Assumed):	1.5
UNIT MASS OF COVER MATERIAL, kg/m^3 (Assumed):	2100.0

Appendix C
Seismic Design Report

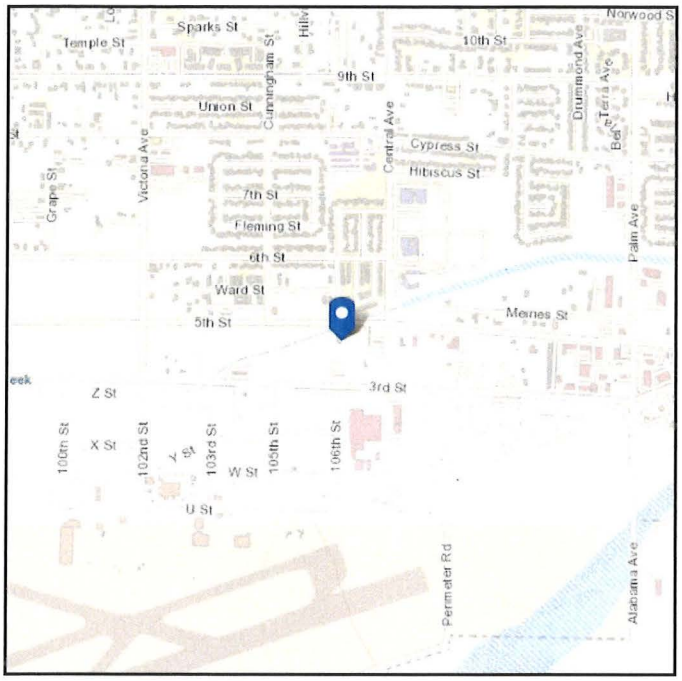
NorCal Engineering

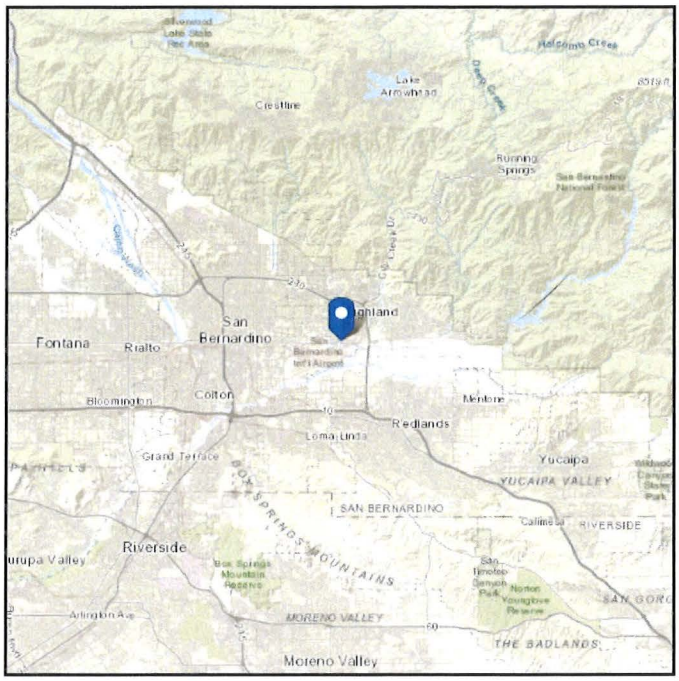
ASCE 7 Hazards Report

Address:
26811 5th St
Highland, California
92346

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Latitude: 34.107915
Longitude: -117.21915
Elevation: 1162.62 ft (NAVD 88)





ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	2.339	S_{D1} :	N/A
S_1 :	0.865	T_L :	8
F_a :	1	PGA :	0.963
F_v :	N/A	PGA_M :	1.06
S_{MS} :	2.339	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.56	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Thu Dec 29 2022

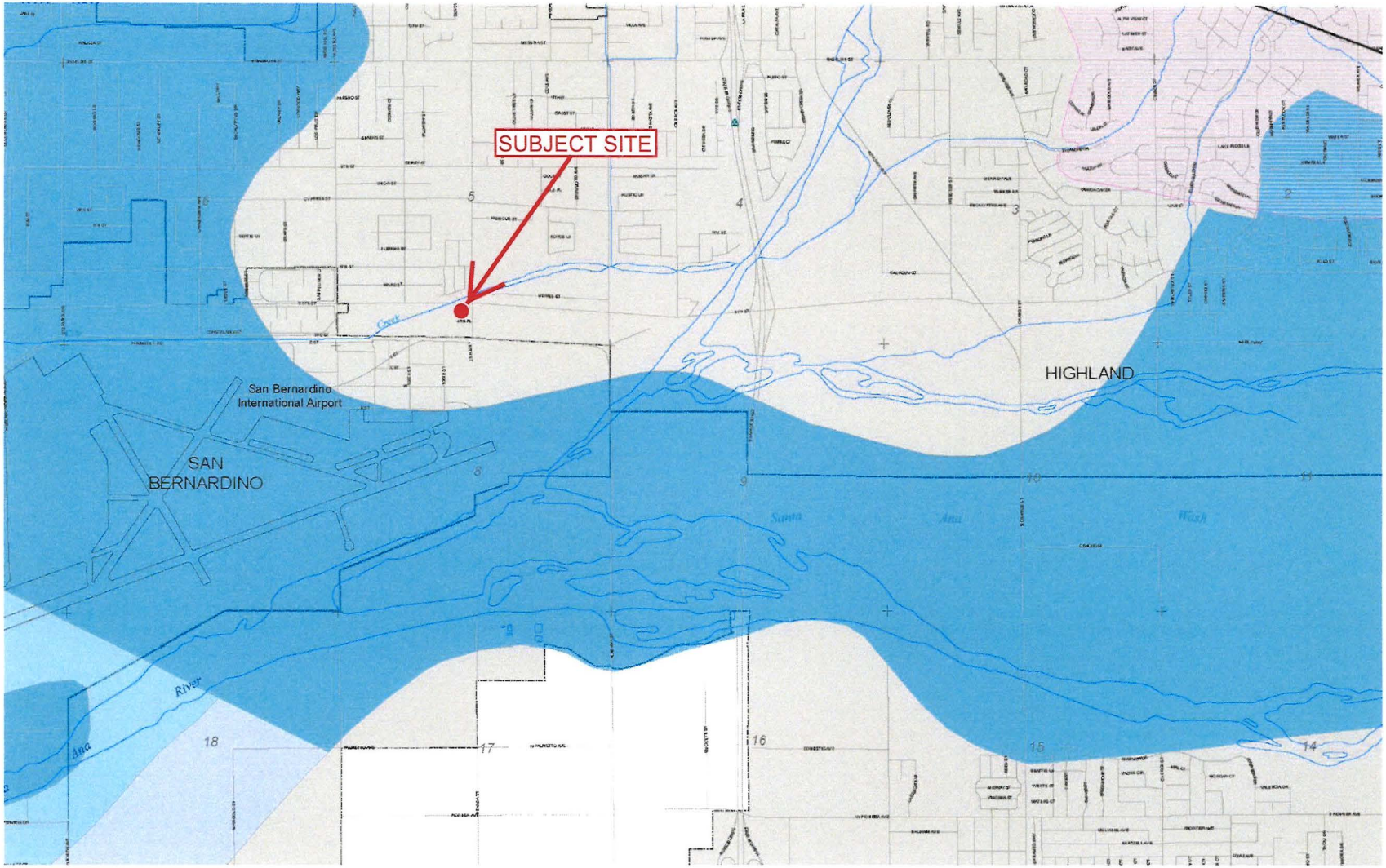
Date Source: USGS Seismic Design Maps

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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Generalized Liquefaction Susceptibility

- Low
- Medium
- High

NorCal Engineering

SOILS AND GEOTECHNICAL CONSULTANTS

PATRIOT DEVELOPMENT PARTNERS

PROJECT: 23536-22 | DATE: DECEMBER 2022

SAN BERNARDINO COUNTY LAND USE PLAN
GENERAL PLAN
GEOLOGIC HAZARD OVERLAY

FH31 C
REDLANDS

Appendix D
Soil Infiltration Data

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Project: Patriot Development Partners
Project No.: 23536-22
Date: 10/12/2022
Test No. 1
Depth: 10'
Tested By: J.S.

TIME (hr/min)	CHANGE TIME (min)	CUMULATIVE TIME (min)	INNER RING READING (cm)	INNER RING CHANGE	INNER RING FLOW (cc)	OUTER RING READING (cm)	OUTER RING CHANGE	OUTER RING FLOW (cc)	INNER RING INF RATE (cm/hr)	OUTER RING INF RATE (cm/hr)	INNER RING INF RATE (ft/hr)
8:08			95.7			39.0					
8:10	2	2	105.3	9.6		49.0	10.0				
8:10			95.4			39.6					
8:12	2	4	104.5	9.1		48.6	9.0				
8:12			96.0			39.9					
8:14	2	6	105.0	9.0		48.9	9.0				
8:14			95.0			39.8					
8:16	2	8	103.5	8.5		47.9	8.1				
8:16			94.3			38.7					
8:18	2	10	103.1	8.8		46.7	8.0				
8:18			98.2			41.8					
8:20	2	12	105.5	7.3		49.3	7.5				
8:20			98.5			42.8					
8:22	2	14	105.8	7.3		49.9	7.1		219	213	
8:22			95.5			39.5					
8:24	2	16	103.5	8.0		47.5	8.0		240	240	
8:24			98.8			42.2					
8:26	2	18	105.7	6.9		49.6	7.4		207	222	
8:26			99.2			43.0					
8:28	2	20	106.4	7.2		50.1	7.1		216	213	
8:28			95.9			40.3					
8:30	2	22	103.4	7.5		47.5	7.2		225	216	
8:30			96.5			40.4					
8:32	2	24	103.7	7.2		47.6	7.2		216	216	

Average = 220.5/220 cm/hr

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Project: Patriot Development Partners
Project No.: 23536-22
Date: 10/12/2022
Test No. 2
Depth: 10'
Tested By: D.R.

TIME (hr/min)	CHANGE TIME (min)	CUMULATIVE TIME (min)	INNER RING READING (cm)	INNER RING CHANGE	INNER RING FLOW (cc)	OUTER RING READING (cm)	OUTER RING CHANGE	OUTER RING FLOW (cc)	INNER RING INF RATE (cm/hr)	OUTER RING INF RATE (cm/hr)	INNER RING INF RATE (ft/hr)
11:00			99.5			35.0					
11:03	3	3	103.8	4.3		43.9	8.9				
11:03			94.9			38.6					
11:06	3	6	102.0	7.1		45.6	7.0				
11:06			96.2			39.5					
11:09	3	9	102.1	5.9		45.4	5.9				
11:09			96.5			39.7					
11:12	3	12	102.1	5.6		45.3	5.6				
11:12			96.6			40.5					
11:15	3	15	102.5	5.6		45.8	5.3				
11:15			96.2			40.2					
11:18	3	18	101.2	5.0		45.3	5.1				
11:18			95.7			39.1					
11:21	3	21	100.6	4.9		44.2	5.1		98	102	
11:21			96.5			39.2					
11:24	3	24	101.2	4.7		44.9	5.7		94	114	
11:24			96.8			40.0					
11:27	3	27	101.8	5.0		44.8	4.8		100	96	
11:27			96.0			39.4					
11:30	3	30	100.8	4.8		44.3	4.9		96	98	
11:30			94.3			38.5					
11:33	3	33	99.3	5.0		43.4	4.9		100	98	
11:33			94.3			38.3					
11:36	3	36	99.4	5.1		43.2	5.0		102	100	

Average = 98.3/101.3 cm/hr

Appendix G

Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT

26811 and 26875 West 5th Street
Highland, California 92346

Prepared for:

Patriot Development Partners
12126 West Sunset Boulevard
Los Angeles, CA 90094

Prepared by:

Hazard Management Consulting, Inc.
211 W. Avenida Cordoba, Suite 200
San Clemente, CA 92672
(949) 361-3902

October 14, 2022

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Executive Summary

Hazard Management Consulting, Inc. (HMC) is pleased to submit this Environmental Site Assessment (ESA) for the property referenced above in the City of Highland, California (Site) (Figures 1 & 2). This ESA was prepared to evaluate the Site for potential Recognized Environmental Conditions (RECs) that may be present and was conducted as part of your due diligence efforts to acquire the Site. The Site measures approximately 2.83-acres and is comprised of four parcels containing vacant land, a residential property (1966), and a vehicle storage and maintenance facility (1989). Prior to these uses, the Site was vacant land.

The Site is relatively flat with an elevation of approximately 1,165 feet above mean sea level (msl) with a regional slope to the west southwest. The Site is located in the City of Highland, San Bernardino County and is set in a mixed-use type setting with residential neighborhoods and commercial/industrial uses.

The Site is bound:

- to the north by West 5th Street and City Creek across which is a residential neighborhood;
- on the east by Highland Head Start (26887 W. 5th St.) and the New West Upholstery Shop (8046 Central Ave.);
- to the south by a residential development and an auto-wreck storage yard; and,
- to the west by vacant land.

Key findings of this Phase I ESA are as follows:

- The Site was historically vacant land until it was first seen to have been developed with a residential structure in 1966 at the 26811 West 5th Street parcel. The eastern most parcel at 26875 West 5th Street was first seen in use for vehicle parking in 1989. The open air structures present at this parcel today were first seen in 1994. The Site is currently used as a residence and vacant land at the 26811 parcel while the 26875 parcel is used for vehicle storage and maintenance. No RECs were assessed from these uses.

- The Site vicinity has historically been used as vacant and developing residential neighborhoods. Commercial/industrial development was first observed in the 1930's and 1940's as well as the development of the Norton Air Force Base (FNAFB), located south of the Site. Since this time, the Site vicinity has been seen with additional development of residential and some commercial/industrial development. These uses continue today however the FNAFB now serves as the San Bernardino International Airport;

- During the reconnaissance portion of this investigation, no RECs were identified however light automotive maintenance was apparent at the 2685 West 5th Street parcel at the Site as well as de minimis to moderate staining on surfaces. Therefore, HMC recommends that prior to a transfer of property, the current Owner removes all equipment, vehicles, chemicals, and any staining from the Site;

- Based on the review of the available regulatory information, some facilities in the Site vicinity were noted to use and store chemicals and generate associated wastes. Some appear to be business run from residences with no indication of hazardous chemical uses or wastes. No evidence of releases that could affect the Site were found however, the notable FNAFB and associated facilities were located south of the Site. Due to the distance from the Site and/or the southerly cross gradient orientation, the former FNAFB was not assessed to pose an environmental threat to the Site. No off-Site RECs were identified;

- Given the findings of this Phase I ESA, there is a low likelihood of a vapor intrusion condition; and,

- Given their age, it is likely that ACMs and LBPs are present at the Site.

Conclusions

We have performed a Phase I Environmental Site Assessment in accordance with ASTM E1527-13 Guidelines for the property located at 26811 and 26875 West 5th Street in the City of Highland, California. **HMC has identified no RECs, HRECs, or CRECs during this investigation**.

While not an REC by ASTM standards, ACMs are likely present at the Site, given the age of the structures.

Recommendations

Based on the findings of this ESA, we recommend the following:

- All equipment, vehicles, chemicals, and any staining is removed from the Site by the current respective Owners; and,
- Conduct ACM and LBP surveys prior to any activity that may disturb suspect ACMs such a demolition.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
26811 and 26875 West 5th Street
Highland, California 92346

1. INTRODUCTION

Hazard Management Consulting, Inc. (HMC) is pleased to submit this Environmental Site Assessment (ESA) for the property referenced above in the City of Highland, California (Site) (Figures 1 & 2). This ESA was prepared to evaluate the Site for potential Recognized Environmental Conditions (RECs) that may be present and was conducted as part of your due diligence efforts to acquire the Site. The Site measures approximately 2.83-acres and is comprised of four parcels containing vacant land, a residential property (1966), and a vehicle storage and maintenance facility (1989). Prior to these uses, the Site was vacant land.

The Site is relatively flat with an elevation of approximately 1,165 feet above mean sea level (msl) with a regional slope to the west southwest. The Site is located in the City of Highland, San Bernardino County and is set in mixed use type setting with residential neighborhoods and commercial/industrial uses.

1.1. Objective

In accordance with the ASTM E 1527-13 Standard Practice for Environmental Site Assessments, the objective of the ESA is to assess, to the extent feasible under the standard, the likelihood that Recognized Environmental Conditions (RECs), as defined by ASTM, are present at the Site.

A Recognized Environmental Condition "means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies" (ASTM Standard Practice E1527-13). Performance of a Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for Recognized Environmental Conditions in connection with a property, within reasonable limits of time and cost.

All Appropriate Inquires (AAI) as defined in the Final Rule (40 CFR, Part 312), must be conducted by persons seeking the landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) prior to acquiring a property or seeking or receiving federal brownfields grants under the authorities of CERCLA. The purpose of AAI, as defined in the AAI Final Rule, is to identify releases and threatened releases of hazardous substances, which cause or threaten to cause the incurrence of response costs. The U.S. Environmental Protection Agency (EPA) has stated that ASTM Standard E-1527-13 is consistent with the Standards and Practices for AAI and is compliant with the statutory criteria for AAI.

1.2. Scope of Services, Methodology and Limitations

The findings of this ESA must be viewed in recognition of certain limiting conditions. The scope of work commissioned for this project does not represent an exhaustive study, but rather a reasonable inquiry, consistent with good commercial practice, in general accordance with ASTM Practice E-1527-13.

The scope of work for this ESA included the following activities:

- A Site walk to document the current condition of the Site and neighboring facilities.
- Review of a regulatory database report.
- Review of previously prepared reports for the Site.
- Submittal of questionnaires to the current Owner and User of the report.
- Review of historical references including aerial photographs, city directories, Sanborn Maps and topographic maps.
- On-line research and file review requests concerning the Site and suspect off-Site sources at the State of California Regional Water Quality Control Board (RWQCB) and Department of Toxic Substances Control (DTSC) websites.

- Review of records maintained by the San Bernardino County Fire Protection District.
- Review of records kept by the South Coast Air Quality Management District.
- Review of building records kept by the City of Highland.
- Preparation of this report of findings.

In the course of this assessment, HMC has relied on information provided by outside parties, such as regulatory agencies, previous reports and interview sources. For the purpose of this assessment, such third-party information is assumed to be accurate unless contradictory evidence is noted, and HMC does not express or imply any warranty regarding information provided by third-party sources.

2. SITE DESCRIPTION

2.1. Site Setting

The Site measures approximately 2.83-acres. The Site is relatively flat with an elevation of approximately 1,165 feet above mean sea level (msl) with a regional slope to the west southwest. The Site is located in the City of Highland, San Bernardino County and is set in a mixed use type setting with residential neighborhoods and commercial/industrial uses.

The Site is bound:

- to the north by West 5th Street and City Creek across which is a residential neighborhood;
- on the east by Highland Head Start (26887 W. 5th St.) and the New West Upholstery Shop (8046 Central Ave.);
- to the south by a residential development and an auto-wreck storage yard; and,
- to the west by vacant land.

Utilities are provided by:

- Electricity: Southern California Edison
- Natural Gas: Southern California Gas Company
- Water: East Valley Water District
- Sewer: Septic

2.2. Regional Geology and Hydrogeology

Information regarding regional geological and hydrogeological conditions was obtained from information included on the California Department of Water Resources (CDWR) website. The Site lies within the Bunker Hill Subbasin and consists of the alluvial materials that underlie the San Bernardino Valley. This subbasin is bound by contact with consolidated rocks of the San Gabriel Mountains, San Bernardino Mountains, and Crafton Hills, and by several faults. The southern boundary is the Banning fault, the east boundary is the Redlands fault, the San Andreas fault is roughly the northern boundary, the Glen Helen fault abuts the northwest boundary, and the southwest boundary is the San Jacinto fault. The Santa Ana River, Mill Creek, and Lytle Creek are the main tributary streams in the subbasin. The range in annual precipitation is 13 to 31 inches.

A 2020 annual report was prepared for the IRP Site 2 Landfill located at the Former Norton Air Force Base, approximately 630 feet south of the Site. Groundwater was reported at an approximate depth of 188 feet below ground surface (bgs). Groundwater flow was assumed to generally flow to the west southwest given the regional topography.

2.3. Interviews and User Provided Information

The User of this report is Patriot Partners (Patriot) who is looking to acquire the Site and would be considered a "User" of the report per ASTM definitions. We requested all available information from the User.

2.4. Title Records

A Title Report was not provided to HMC for review.

2.5. User Knowledge

We interviewed Mr. Kevin Rice of Patriot who indicated that his firm has no previous knowledge or experience with the property and is unaware of any chemical spills or releases or ongoing environmental matters. He indicated that they are paying full market value for the Site.

2.6. Owner/Occupant Knowledge

A completed HMC Owner Questionnaire was returned to HMC for the 26811 West 5th Street property at the Site. Ms. Patricia M. Dillard, Trustee of the Dillard House Trust, completed the questionnaire. Ms. Dillard indicated she was unaware of any underground or aboveground chemical storage, chemical releases, suspect uses, or other

environmental conditions. She stated the property has been used as a home and office since 1966.

An Owner Questionnaire has not been returned nor has an Owner interview been able to be conducted for the 26875 West Fifth Street property.

2.7. Environmental Liens or Activity and Use Limitations

The best of HMC's knowledge from the review of records provided by the User and third parties, there are no environmental liens or AULs in relation to the Site.

3. SITE USE AND HISTORY

Past usage of the subject Site was assessed through a review of historical aerial photographs, topographic maps and an EDR search of city directories and prior reports. Sanborn maps were not generated for the Site.

3.1. Aerial Photograph Review

Aerial photographs covering the Site were obtained from Environmental Data Resources, Inc. (EDR). Photographs were available from the period 1930 through 2016. Copies of the aerial photographs are included in Appendix B.

1930	The Site and Site vicinity were observed as vacant land. It appeared the Site was located within a creek bed. Agricultural fields were seen approximately 1,000 feet northwest of the Site.
1938-59	The Site was notably vacant during this time period. The Site vicinity was observed with some commercial and residential development including roads and the engineering of the creek bed into what is now referred to as City Creek. Structures and airfields at the FNAFB were first seen south of the Site in 1949. The northern border of the FNAFB was approximately 630 feet to the south of the Site.
1966	The Site was first seen to have been developed with the residence seen today. The remainder of the Site was vacant land. Commercial/industrial and residential development was

	seen approximately one-quarter mile from the Site in the northwest.
1968	No significant changes were observed at the Site or Site vicinity.
1975	No significant changes were observed at the Site. Residential development was first seen to reach West 5th Street across from the Site.
1985	No significant changes were observed at the Site. Continued development of residential properties were noted north of the Site.
1989	The 26875 West 5th Street property was first seen to have been used for vehicle parking. Two commercial building were first seen to have been developed immediately east of the Site.
1994	An open air structure was first seen at the 26875 parcel at the Site in the south. No significant changes in the Site vicinity were seen.
2002-16	No significant changes to the Site or Site vicinity were observed.

3.2. Topographic Maps

Historical topographic maps were also reviewed as part of this effort and aided in interpreting the overall Site history. Although, no specific observations were made from the review of these maps.

3.3. Sanborn Maps

Sanborn maps are maps that were created for the insurance industry to document Site activities in metropolitan areas of the country and were used in underwriting. They often times contain detailed information about a Site. While they were prepared for insurance underwriting and were not environmental maps per se, they often times contain information that is useful in evaluating the historical use of a Site. Sanborn maps were not generated for the Site.

3.4. EDR City Directory Review

EDR performed a search of the City Directory records for the Site addresses provided at the initiation of this Phase I ESA and nearby properties at approximately five-year intervals. Review of this report yielded the following findings:

26811 W. 5th St.	
Year	**Use**
2017	Dillard, Patricia M.
2014	Occupant Unknown
2005-2010	Dillard, Dewitt T.
1992-2000	Dillard, Dewitt T. Lincoln Construction
1971-1986	Dillard, Dewitt T. Lincoln Construction Amer. Realty

26875 W. 5th St.	
Year	**Use**
1992-1995	Bryant, Gerald

3.5. Summary

The Site was historically vacant land until it was first seen to have been developed with a residential structure in 1966 at the 26811 West 5th Street parcel. The eastern most parcel at 26875 West 5th Street was first seen in use for vehicle parking in 1989. The open air structures present at this parcel today were first seen in 1994. The Site is currently used as a residence and vacant land at the 26811 parcel while the 26875 parcel is used for vehicle storage and maintenance. No RECs were assessed from these uses.

The Site vicinity has historically been used as vacant and developing residential neighborhoods. Commercial/industrial development was first observed in the 1930's and 1940's as well as the development of the FNAFB, located south of the Site. Since this time, the Site vicinity has been seen with additional development of residential and some commercial/industrial development. These uses continue today however the FNAFB now serves as the San Bernardino International Airport.

4. PRIOR INVESTIGATIONS

There have been no previous environmental investigations conducted at the Site to HMC's knowledge.

5. SITE RECONNAISSANCE

Mr. Troy Taylor of HMC conducted a Site and Site vicinity reconnaissance on October 6, 2022. The reconnaissance was conducted in order to identify visible evidence of REC's at the Site and to assess possible conditions off-Site that may impact the Site. Mr. Taylor was unaccompanied at the Site.

The residential property at 26811 West 5th Street was seen with a single family home in the east with a detached garage and sheds with what appeared as a former livestock pen. The sheds were inaccessible due to being locked. Some de minimis oil and moderate paint staining was observed on the asphalt driveway. The remainder of the parcel was observed to be vacant, unpaved land. The residence was not entered.

The 26875 West 5th Street parcel was seen to be unpaved with the exception of an open air structure with a concrete pad. It appeared, in addition to storage, that automotive maintenance is conducted at this parcel. Maintenance quantities of automotive chemicals were observed. Locked containers were also observed on this parcel. Staining was observed on plywood.

HMC was unable to observe beneath and inside every vehicle and/or container or shed at the Site, it is recommended that all equipment, vehicles, chemicals, and any staining is removed from the Site.

No RECs were assessed at the Site. Given the age of the structures, asbestos containing materials (ACMs) and lead based paints (LBPs) may be present at the Site. A pre-demolition survey for these materials is recommended.

Selected photographs illustrating the Site and nearby off-Site conditions are included in Appendix A. Summaries of the Site and observations are detailed below.

Description and Use of Site:	The Site is an approximately 2.83-acre parcel containing a residence, vacant land, and a vehicle storage/maintenance facility.
Underground and Aboveground Storage Tanks:	No evidence of USTs or ASTs was observed at the Site.
Hazardous Materials, Hazardous Wastes or Petroleum Products:	Automotive maintenance chemicals were observed at the Site.
Drains, Drain lines and Sumps:	No drainage features were observed at the Site.
Pits, Ponds, Lagoons	These features were not seen at the Site.
Industrial Wastewater:	Wastewater was not observed to be generated at the Site.
Stains:	De minimis to moderate oil and paint stains were observed at the Site.
Wells:	No wells were observed at the Site.
Transformers:	One transformer was seen along the northern border of the Site.
Other Features:	ACMs and LBPs may be present at the Site, given the age of the structures.

5.1. Site Vicinity

The Site is bound:

- to the north by West 5th Street and City Creek across which is a residential neighborhood;
- on the east by Highland Head Start (26887 W. 5th St.) and the New West Upholstery Shop (8046 Central Ave.);
- to the south by a residential development and an auto-wreck storage yard; and,
- to the west by vacant land.

From a visual perspective, there were no threats assessed from off-Site facilities.

6. REGULATORY AGENCY DATABASE RESEARCH

Regulatory agency database information was obtained from a standard radius Site Assessment (ASTM) report by Environmental Data Resources, Inc. The center of the search was in the approximate center of the Site. Search distances for specific databases were one-quarter to one mile as specified in the ASTM 1527-13 standard. The database search includes over 70 federal, state, local, and proprietary records. A complete copy of this report is included in Appendix B.

6.1. Database Records Concerning the Target Property

The Site was not listed with any records in the EDR Radius research databases.

6.2. Database Records Concerning the Site Vicinity

We reviewed the database report for off-Site potential sources within the relevant search distance. In review of the many entries on the database, we reviewed the following factors that affect the ability of a facility to affect the Site:

- Distance from the Site,
- Location from the Site with regard to the direction of groundwater flow,
- Nature of the release and whether the release has affected soil, groundwater or both,
- Status of the investigation (e.g. open or closed)

Groundwater was assumed to flow to the west southwest given the regional topography, therefore facilities located adjacent to or to the east northeast were further considered. Only those facilities judged using these factors are discussed below. The following presents a summary of our findings:

Location	Address	Dist.	Dir.	Lists	REC	RATIONALE
Jose Huizar	26875 4th Pl.	137'	SE	RCRA NONGEN/NLR	NO	This adjacent facility was recorded as a non-generator of hazardous waste. No REC was identified.
Deyanira Requenes	26880 Mossway St.	362'	NNE	RCRA NONGEN/NLR	NO	This adjacent facility was recorded as a non-generator of hazardous waste. No REC was identified.
Wyle Labs SBO East Dept. 551	3505 East 3rd St.	449'	SE	RCRA SQG SAN BERN CO. PERMIT AST CERS HAZ WASTE CERS TANKS SAN BERN. CO. PERMIT CERS RCRA NONGEN/NLR	NO	This former testing laboratory located on the FNAFB property was plotted in the EDR map slightly up and cross gradient to the Site. This location is believed to be in error as the address for this facility is located approximately 2,500 feet southeast from the Site. No recorded releases were found in the records. At this distance and depth of groundwater, it is unlikely that an unreported release from this facility would affect the Site.
USAF Norton AFB	305 S. Tippecanoe Ave.	489'	S	NPL SEMS CORRACTS RCRA-SQG RCRA-SQG SITE US INST CONTROLS ROD	NO	This former Air Force base has undergone investigations and remediation from 1982 until 2001 when the project was considered complete. Groundwater monitoring is ongoing and residual contamination is present in groundwater beneath the facility, although reportedly below the current MCLs,

						specifically for TCE. The presence of the VOC contaminated groundwater is not expected to affect the Site due to the facility's distance and southerly cross gradient orientation.

Orphan Sites

Orphan Sites are those properties that are included on various agency lists, but for which the records do not have sufficient address information for the database program to map the Site. No orphan sites identified appear to be in the Site vicinity with exception of a LUST listing for the former NAFB. None of the listings were assessed to be of a nature and/or in an orientation to pose a potential environmental concern to the Site.

6.3. Summary of Off-Site Issues

Based on the review of the available regulatory information, some facilities in the Site vicinity were noted to use and store chemicals and generate associated wastes. Some appear to be business run from residences with no indication of hazardous chemical uses or wastes. No evidence of releases that could affect the Site were found however, the notable FNAFB and associated facilities were located south of the Site. Due to the distance from the Site and/or the southerly cross gradient orientation, the former NAFB was not assessed to pose an environmental threat to the Site. No off-Site RECs were identified.

7. LOCAL AGENCY AND OTHER RECORDS REVIEW

7.1. Tribal Records

The Site is not located in a tribal area therefore there were no tribal records to review.

7.2. Oil and Gas Wells

The State of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources online mapping website was reviewed for the location of active, plugged, or abandoned oil and gas wells in the vicinity of the Site. No oil or gas wells were listed as having been drilled on or in the near vicinity of the Site. An idle geothermal well was the nearest plotted well, located approximately 9,500 feet north of the Site.

7.3. State of California

The State of California Geotracker and EnviroStor websites were also reviewed for information on potential on or off-Site facilities that are being remediated under either RWQCB or DTSC oversight. No active cases were listed on these databases that were not listed in the EDR review.

HMC also submitted public records requests to the DTSC and RWQCB for the Site. Records searches for the Site yielded no responsive records found by either agency.

7.4. San Bernardino County Fire Protection District

A public records request was submitted online to the SBCFPD. The SBCFPD is still processing the PRR at the time of the issuance of this report.

7.5. City of Highland

HMC submitted a public records request to the City of Highland. One building permit for the re-roofing of the residence at 26811 West 5th Street was found and reviewed. The city is still processing a PRR submitted for the 26875 West 5th Street property.

7.6. South Coast Air Quality Management District

A review of the SCAQMD Facility Information Detail website indicated that no records were found for the Site.

8. VAPOR INTRUSION, ASBESTOS, AND OTHER CONCERNS

8.1. Vapor Intrusion

Given the findings of this Phase I ESA, there is a low likelihood of a vapor intrusion condition.

8.2. Asbestos Containing Materials

Given the age of the structures at the Site, asbestos may be present in building materials at the Site.

8.3. Lead Based Paint

Given the age of the structures at the Site, LBPs may be present on structures and other features at the Site.

8.4. Radon

The Site is listed as being located in Zone 2 with regards to radon indicating that radon maybe present at concentrations less than 4 pico curies / liter.

8.5. Mold

No evidence of mold or water damage was observed at the Site. The residence was not entered during the Site reconnaissance.

9. SUMMARY OF FINDINGS

Key findings of this Phase I ESA are as follows:

- The Site was historically vacant land until it was first seen to have been developed with a residential structure in 1966 at the 26811 West 5th Street parcel. The eastern most parcel at 26875 West 5th Street was first seen in use for vehicle parking in 1989. The open-air structures present at this parcel today were first seen in 1994. The Site is currently used as a residence and vacant land at the 26811 parcel while the 26875 parcel is used for vehicle storage and maintenance. No RECs were assessed from these uses.

- The Site vicinity has historically been used as vacant and developing residential neighborhoods. Commercial/industrial development was first observed in the 1930's and 1940's as well as the development of the Norton Air Force Base (FNAFB), located south of the Site. Since this time, the Site vicinity has been seen with additional development of residential and some commercial/industrial development. These uses continue today however the FNAFB now serves as the San Bernardino International Airport;

- During the reconnaissance portion of this investigation, no RECs were identified however light automotive maintenance was apparent at the 2685 West 5th Street parcel at the Site as well as de minimis to moderate staining on surfaces. Therefore, HMC recommends that prior to a transfer of property, the current Owner removes all equipment, vehicles, chemicals, and any staining from the Site;

- Based on the review of the available regulatory information, some facilities in the Site vicinity were noted to use and store chemicals and generate associated wastes. Some appear to be business run from residences with no indication of hazardous chemical uses or wastes. No evidence of releases that could affect the Site were found however, the notable FNAFB and associated facilities were located south of the Site. Due to the distance from the Site and/or the southerly cross gradient orientation, the former FNAFB was not assessed to pose an environmental threat to the Site. No off-Site RECs were identified;

- Given the findings of this Phase I ESA, there is a low likelihood of a vapor intrusion condition; and,

- Given their age, it is likely that ACMs and LBPs are present at the Site.

10. DATA GAPS

The following data gaps were identified during this investigation:

- The Owner of the 26875 parcel has not been able to be interviewed nor as an HMC Owner Questionnaire been completed for this parcel.
- The City of Highland and the San Bernardino County Fire Protection District are still processing submitted PRRs at the time of the issuance of this report.

While these are datagaps, we do not view them as critical data failure given information obtained about the Site elsewhere.

11. CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in accordance with ASTM E1527-13 Guidelines for the property located at 26811 and 26875 West 5th Street in the City of Highland, California. **HMC has identified no RECs, HRECs, or CRECs during this investigation**.

While not an REC by ASTM standards, ACMs are likely present at the Site, given the age of the structures.

12. RECOMMENDATIONS

Based on the findings of this ESA, we recommend the following:

- All equipment, vehicles, chemicals, and any staining is removed from the Site by the current respective Owners; and,
- Conduct ACM and LBP surveys prior to any activity that may disturb suspect ACMs such a demolition.

13. QUALIFICATIONS

Mark S. Cousineau, NREP

Mr. Mark S. Cousineau, principal with HMC, has a diverse professional background in environmental management, which includes working as a generator, regulator, consultant, and corporate advisor in hazardous waste and other environmental issues.

Mr. Cousineau's technical background is focused in the area of overseeing large-scale environmental investigations and regulatory compliance management related to Site assessments, subsurface investigations, facility surveys, and Site remediation. To projects such as these, Mr. Cousineau brings expertise in evaluating complex sites and developing solutions to solve the technical, operational, regulatory, financial and timing issues. In addition, Mr. Cousineau routinely assists clients in developing environmental business plans for single assets and multi-Site real estate portfolios and has designed and implemented several tenant audit programs involving the proactive management of environmental risk caused by on-Site commercial and industrial tenant activities.

Mr. Cousineau has provided litigation support and has served, as a court-appointed expert on environmental issues, is a Member of the National Registry of Environmental Professionals, holds a M.S. in Environmental Sciences from California State University Fullerton and a B.S. in Chemistry from University California San Diego.

As signatory to this report, I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of this part. I have the specific qualifications based on education, training, and experience to assess the property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."



Mark Cousineau, NREP
Principal

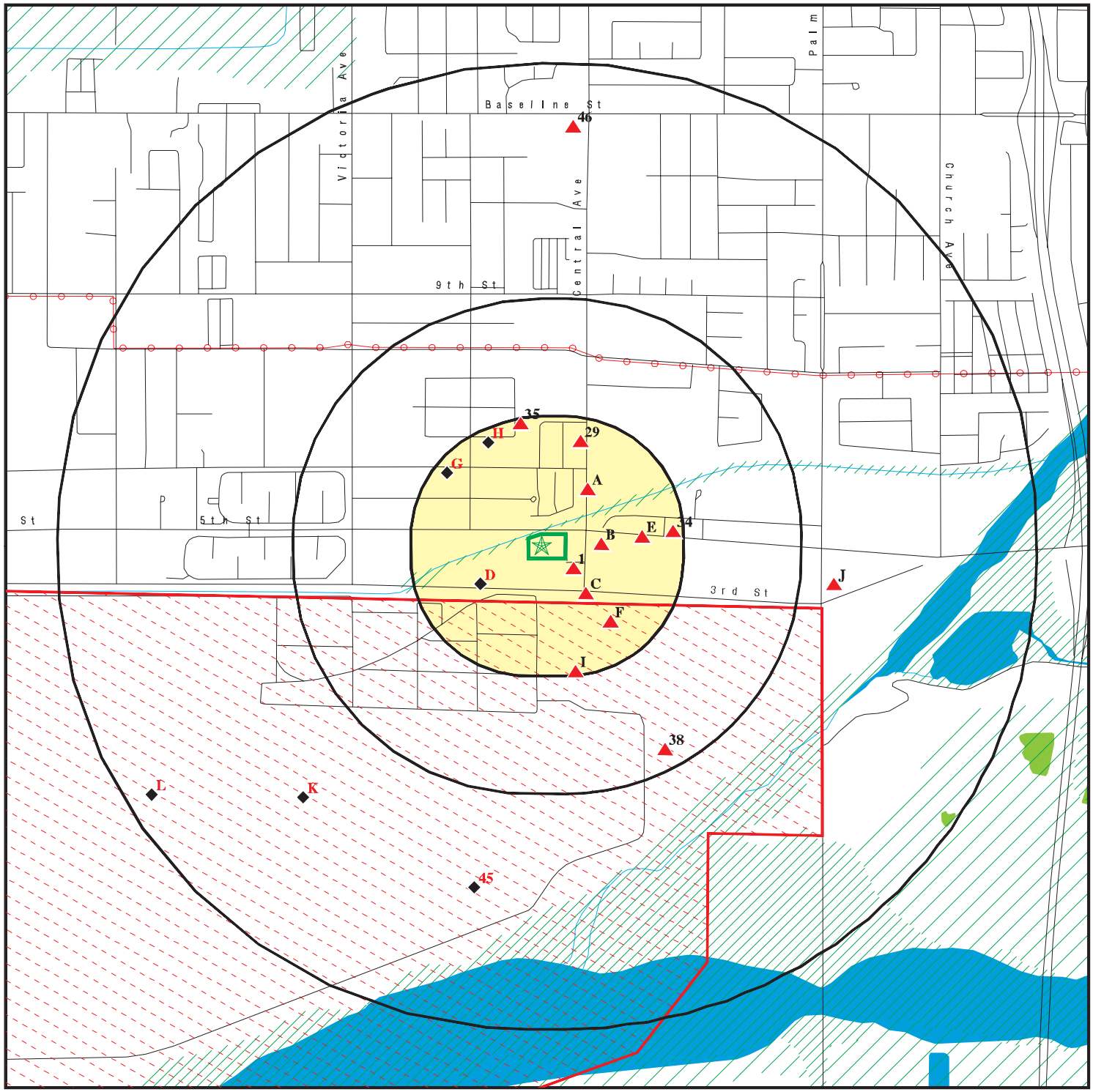
14. REFERENCES

California Department of Water Resources, California's Groundwater - Bulletin 118, February 27, 2004

CH2M, Former Norton Air Force Base San Bernardino IRP Site 2 Landfill Operations, Maintenance, and Monitoring 2019 Annual Report, California, May 2020

TABLES

OVERVIEW MAP - 7120439.2S



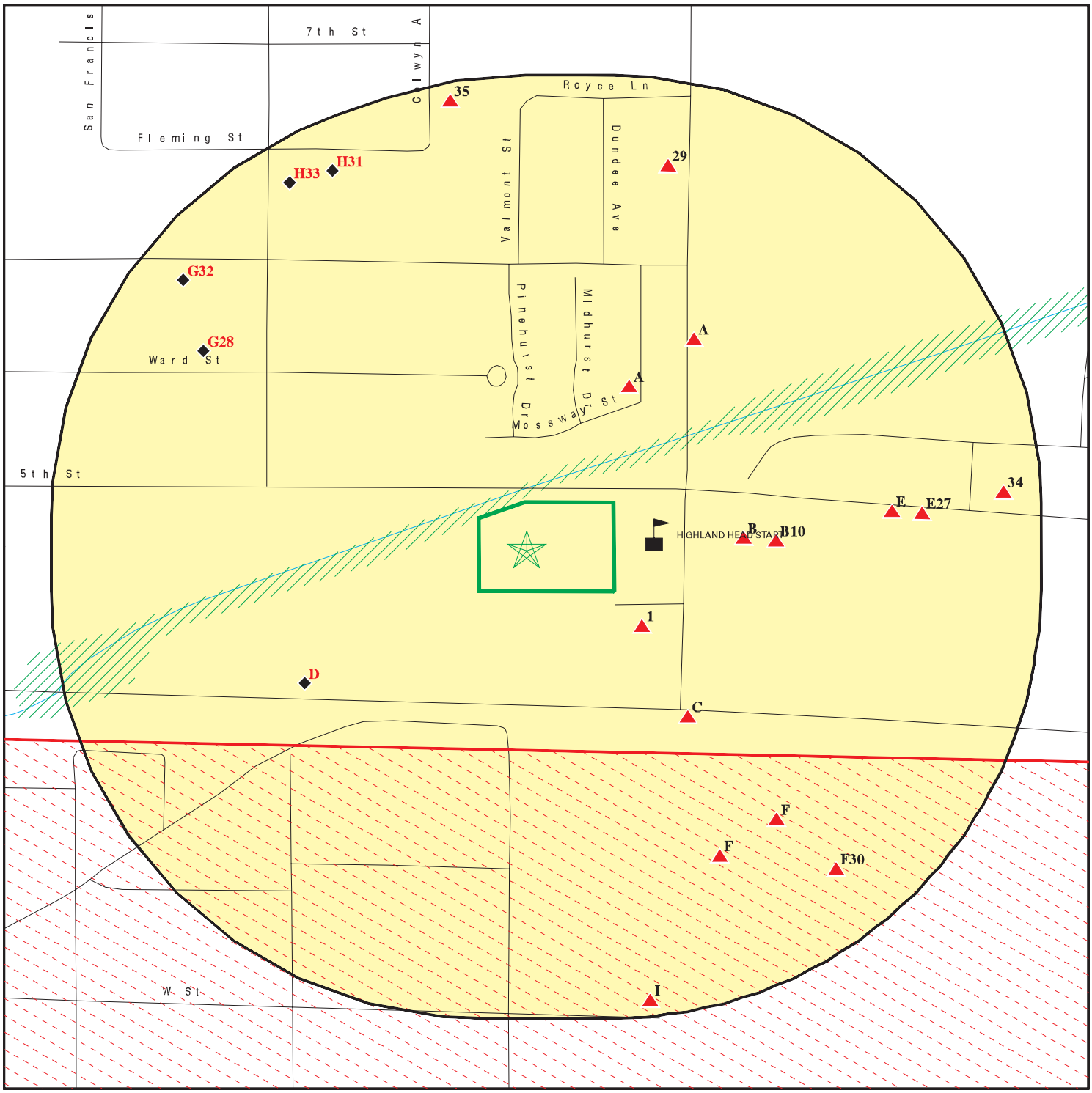
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 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: 26811 5th St	CLIENT: Hazard Management Consulting
ADDRESS: 26811 5th St Highland CA 92346	CONTACT: Troy Taylor
LAT/LONG: 34.10792 / 117.219162	INQUIRY #: 7120439.2s DATE: September 16, 2022 4:56 pm

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DETAIL MAP - 7120439.2S



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

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Areas of Concern

N

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: 26811 5th St ADDRESS: 26811 5th St Highland CA 92346 LAT/LONG: 34.10792 / 117.219162	CLIENT: Hazard Management Consulting CONTACT: Troy Taylor INQUIRY #: 7120439.2s DATE: September 16, 2022 4:57 pm

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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								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		1	0	0	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		1	0	0	NR	NR	1
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		1	0	0	1	NR	2
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		1	0	0	NR	NR	1
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		2	2	NR	NR	NR	4
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		1	0	0	NR	NR	1
US INST CONTROLS	0.500		1	0	0	NR	NR	1
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
CA RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
CA ENVIROSTOR	1.000		0	0	0	5	NR	5
Lists of state and tribal landfills and solid waste disposal facilities								
CA SWF/LF	0.500		0	1	0	NR	NR	1

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
Lists of state and tribal leaking storage tanks								
CA LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
CA CPS-SLIC	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
CA UST	0.250		0	2	NR	NR	NR	2
CA AST	0.250		1	1	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
CA VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
CA BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
CA WMUDS/SWAT	0.500		0	0	0	NR	NR	0
CA SWRCY	0.500		0	0	0	NR	NR	0
CA HAULERS	0.001		0	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
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CA HIST Cal-Sites	1.000		0	0	0	1	NR	1
CA SCH	0.250		0	0	NR	NR	NR	0
CA CDL	0.001		0	NR	NR	NR	NR	0
CA CERS HAZ WASTE	0.250		4	2	NR	NR	NR	6
CA Toxic Pits	1.000		0	0	0	1	NR	1
US CDL	0.001		0	NR	NR	NR	NR	0
CA AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
CA PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
CA SWEEPS UST	0.250		0	0	NR	NR	NR	0
CA HIST UST	0.250		0	2	NR	NR	NR	2
CA CERS TANKS	0.250		1	3	NR	NR	NR	4

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								
CA LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
CA DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CA CHMIRS	0.001		0	NR	NR	NR	NR	0
CA LDS	0.001		0	NR	NR	NR	NR	0
CA MCS	0.001		0	NR	NR	NR	NR	0
CA SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		8	9	NR	NR	NR	17
FUDS	1.000		0	0	0	1	NR	1
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		1	0	0	0	NR	1
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	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	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	1	1	NR	2
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
CA Cortese	0.500		0	0	0	NR	NR	0
CA CUPA Listings	0.250		0	0	NR	NR	NR	0
CA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA EMI	0.001		0	NR	NR	NR	NR	0
CA ENF	0.001		0	NR	NR	NR	NR	0
CA Financial Assurance	0.001		0	NR	NR	NR	NR	0
CA HAZNET	0.001		0	NR	NR	NR	NR	0
CA ICE	0.001		0	NR	NR	NR	NR	0
CA HIST CORTESE	0.500		0	0	0	NR	NR	0
CA HWP	1.000		0	0	0	1	NR	1
CA HWT	0.250		0	0	NR	NR	NR	0
NJ MANIFEST	0.250		0	0	NR	NR	NR	0
CA MINES	0.250		0	0	NR	NR	NR	0
CA MWMP	0.250		0	0	NR	NR	NR	0
CA NPDES	0.001		0	NR	NR	NR	NR	0
CA San Bern. Co. Permit	0.250		8	2	NR	NR	NR	10
CA PEST LIC	0.001		0	NR	NR	NR	NR	0
CA PROC	0.500		0	0	0	NR	NR	0
CA Notify 65	1.000		0	0	0	0	NR	0
CA UIC	0.001		0	NR	NR	NR	NR	0
CA UIC GEO	0.001		0	NR	NR	NR	NR	0
CA WASTEWATER PITS	0.500		0	0	0	NR	NR	0
CA WDS	0.001		0	NR	NR	NR	NR	0
CA WIP	0.250		0	0	NR	NR	NR	0
CA MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
CA PROJECT	0.001		0	NR	NR	NR	NR	0
CA WDR	0.001		0	NR	NR	NR	NR	0
CA CIWQS	0.001		0	NR	NR	NR	NR	0
CA CERS	0.001		0	NR	NR	NR	NR	0
CA NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
CA OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
CA PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
CA SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
CA WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
CA HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
CA RGA LF	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	31	24	1	12	0	68

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

FIGURES



Figure 1
26811 & 26875 W. 5th St.
Highland, CA

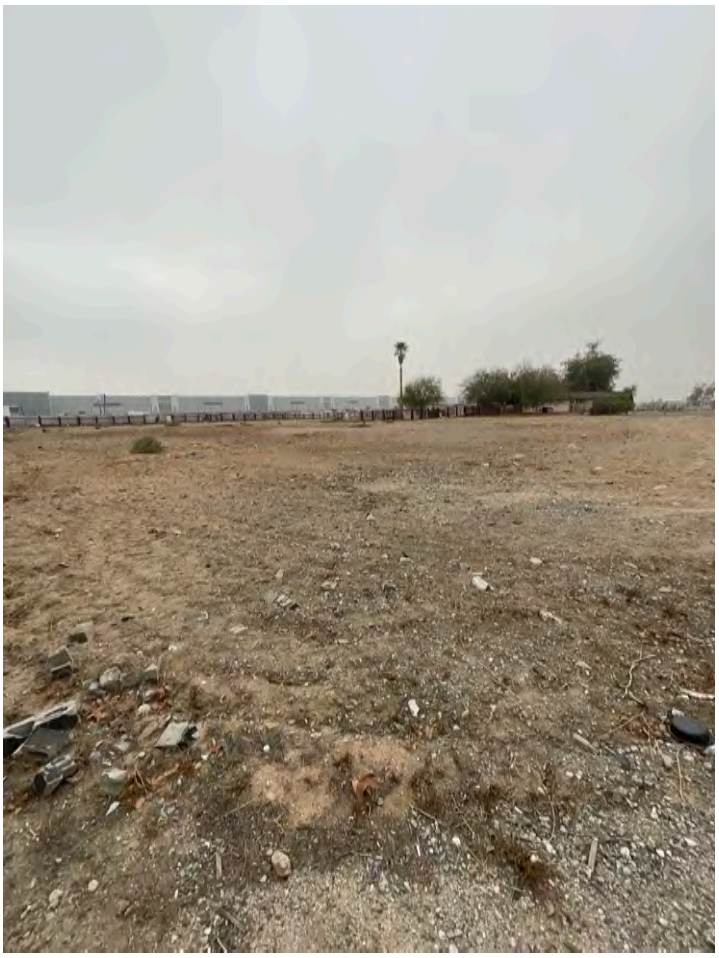
HMC
HAZARD MANAGEMENT CONSULTING



Figure 2
26811 & 26875 W. 5th St.
Highland, CA

HMC
HAZARD MANAGEMENT CONSULTING

APPENDIX A



View SW Across Site



Transformer



26811 Residence



26811 Yard and Stains



View E Across Site



26875 Yard



Storage



Automotive Maintenance Area and Stains

APPENDIX B

26811 5th St

26811 5th St

Highland, CA 92346

Inquiry Number: 7120439.3

September 16, 2022

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

09/16/22

Site Name:

26811 5th St
26811 5th St
Highland, CA 92346
EDR Inquiry # 7120439.3

Client Name:

Hazard Management Consulting
211 W. Avenida Cordoba
San Clemente, CA 92672
Contact: Troy Taylor

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Hazard Management Consulting 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 # 8D5E-4D5A-B818

PO # NA

Project Patriot - 26811 5th St Highlan

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 #: 8D5E-4D5A-B818

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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26811 5th St

26811 5th St

Highland, CA 92346

Inquiry Number: 7120439.4

September 16, 2022

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

09/16/22

Site Name:

26811 5th St
26811 5th St
Highland, CA 92346
EDR Inquiry # 7120439.4

Client Name:

Hazard Management Consulting
211 W. Avenida Cordoba
San Clemente, CA 92672
Contact: Troy Taylor

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Hazard Management Consulting 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. EDRs 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:

P.O.# NA

Project: Patriot - 26811 5th St Highlan

Coordinates:

Latitude:	34.10792 34° 6' 29" North
Longitude:	-117.219162 -117° 13' 9" West
UTM Zone:	Zone 11 North
UTM X Meters:	479786.48
UTM Y Meters:	3774143.72
Elevation:	1163.00' above sea level

Maps Provided:

2018	1967
2015	1954
2012	1953, 1954
1996	1901
1988	1899
1980	
1975	
1973	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2018 Source Sheets



Redlands
2018
7.5-minute, 24000



Harrison Mountain
2018
7.5-minute, 24000

2015 Source Sheets



Redlands
2015
7.5-minute, 24000



Harrison Mountain
2015
7.5-minute, 24000

2012 Source Sheets



Redlands
2012
7.5-minute, 24000



Harrison Mountain
2012
7.5-minute, 24000

1996 Source Sheets



Redlands
1996
7.5-minute, 24000
Aerial Photo Revised 1994



Harrison Mountain
1996
7.5-minute, 24000
Aerial Photo Revised 1994

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1988 Source Sheets



Redlands
1988
7.5-minute, 24000
Aerial Photo Revised 1985



Harrison Mtn.
1988
7.5-minute, 24000
Aerial Photo Revised 1985

1980 Source Sheets



Harrison Mtn.
1980
7.5-minute, 24000
Aerial Photo Revised 1978



Redlands
1980
7.5-minute, 24000
Aerial Photo Revised 1978

1975 Source Sheets



Redlands
1975
7.5-minute, 24000
Aerial Photo Revised 1975

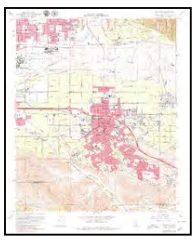


Harrison Mtn.
1975
7.5-minute, 24000
Aerial Photo Revised 1975

1973 Source Sheets



Harrison Mtn
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Redlands
1973
7.5-minute, 24000
Aerial Photo Revised 1973

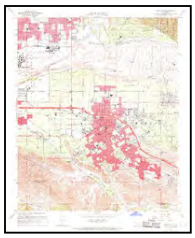
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1967 Source Sheets



Harrison Mtn.
1967
7.5-minute, 24000
Aerial Photo Revised 1966



Redlands
1967
7.5-minute, 24000
Aerial Photo Revised 1966

1954 Source Sheets



Redlands
1954
15-minute, 62500
Aerial Photo Revised 1952

1953, 1954 Source Sheets



Harrison Mtn.
1953
7.5-minute, 24000
Aerial Photo Revised 1952

1901 Source Sheets



Redlands
1901
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

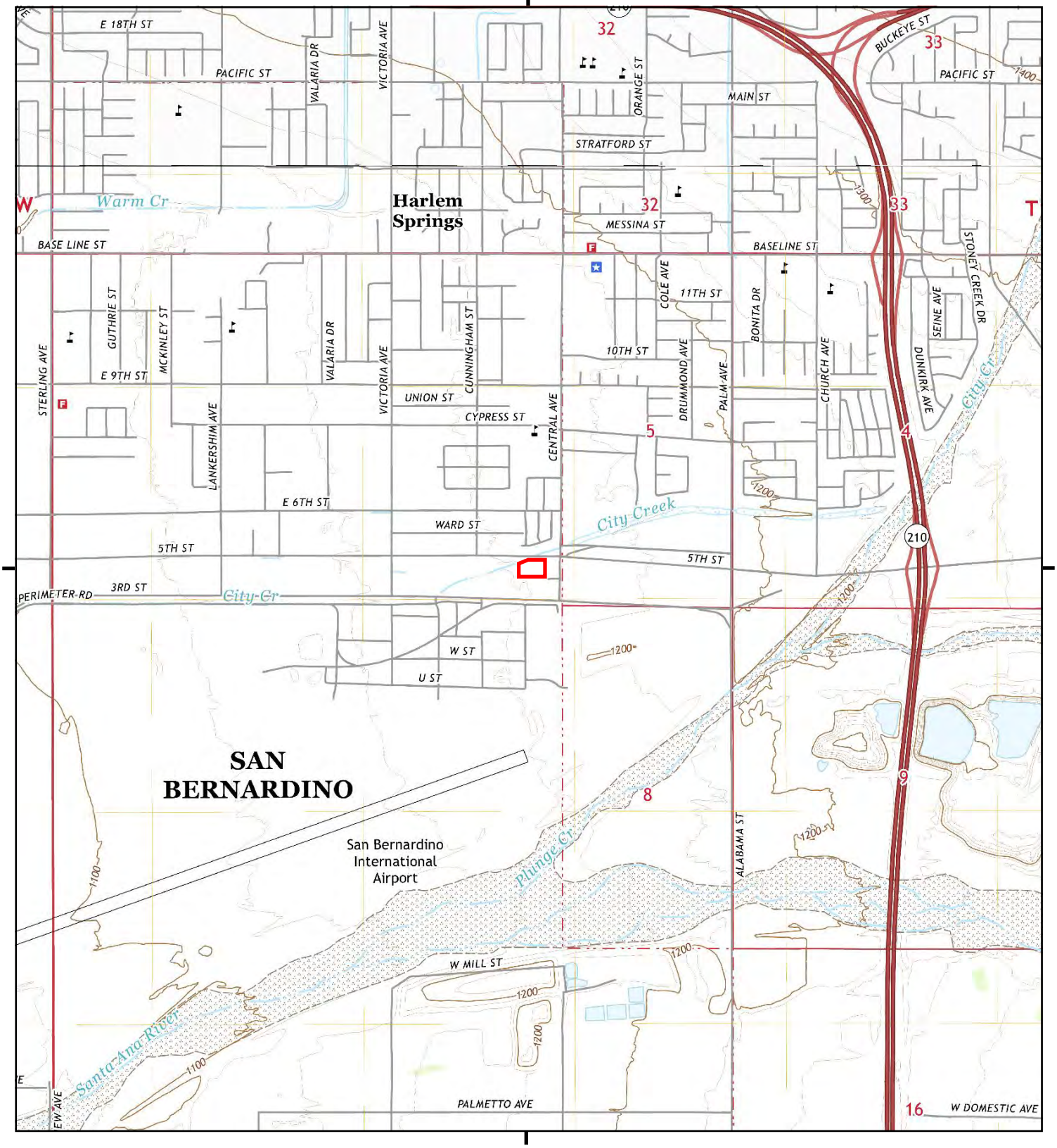
1899 Source Sheets



Redlands
1899
15-minute, 62500

Historical Topo Map

2018



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

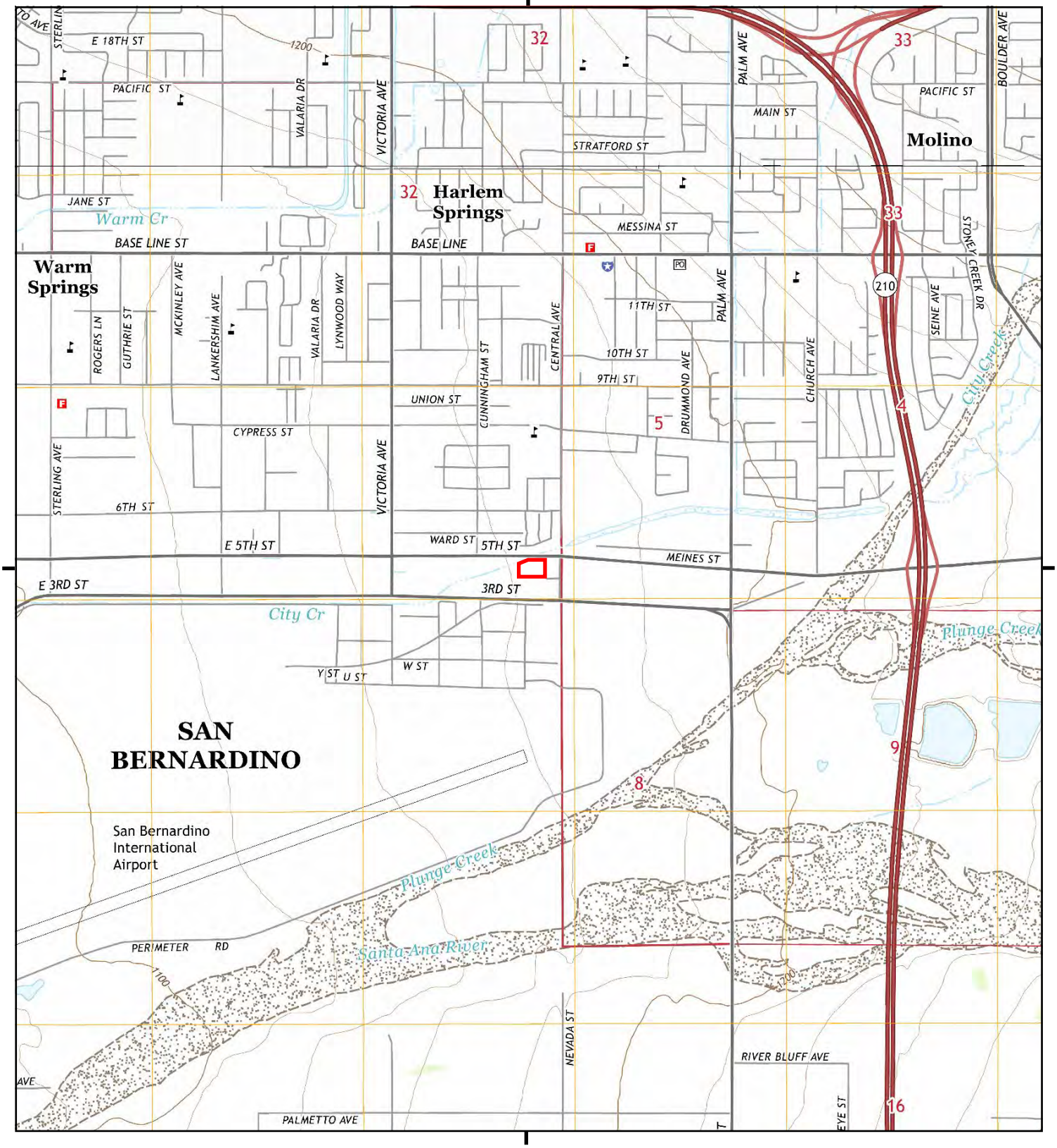
TP, Redlands, 2018, 7.5-minute
N, Harrison Mountain, 2018, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N

Historical Topo Map

2015



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

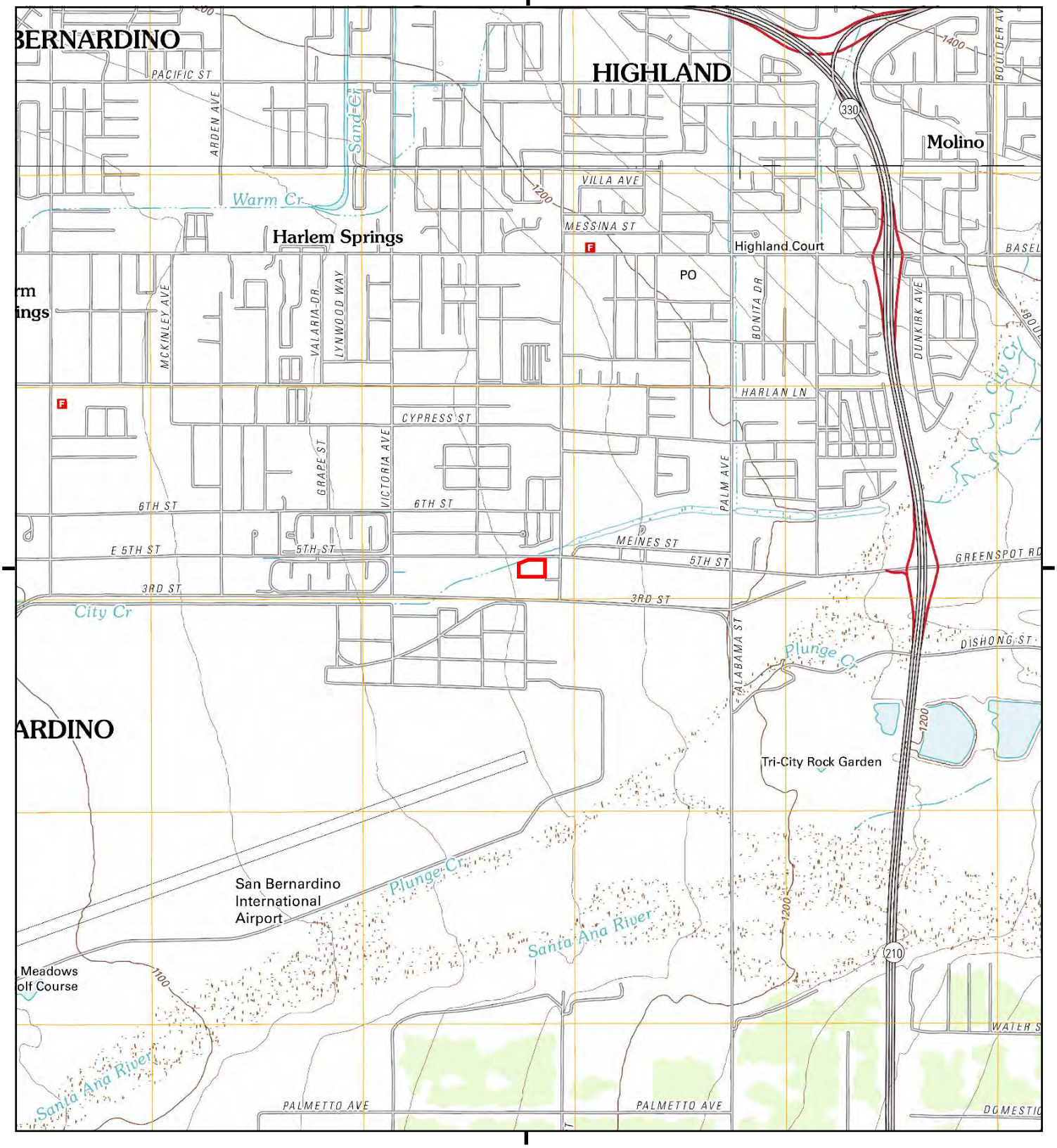
TP, Redlands, 2015, 7.5-minute
N, Harrison Mountain, 2015, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

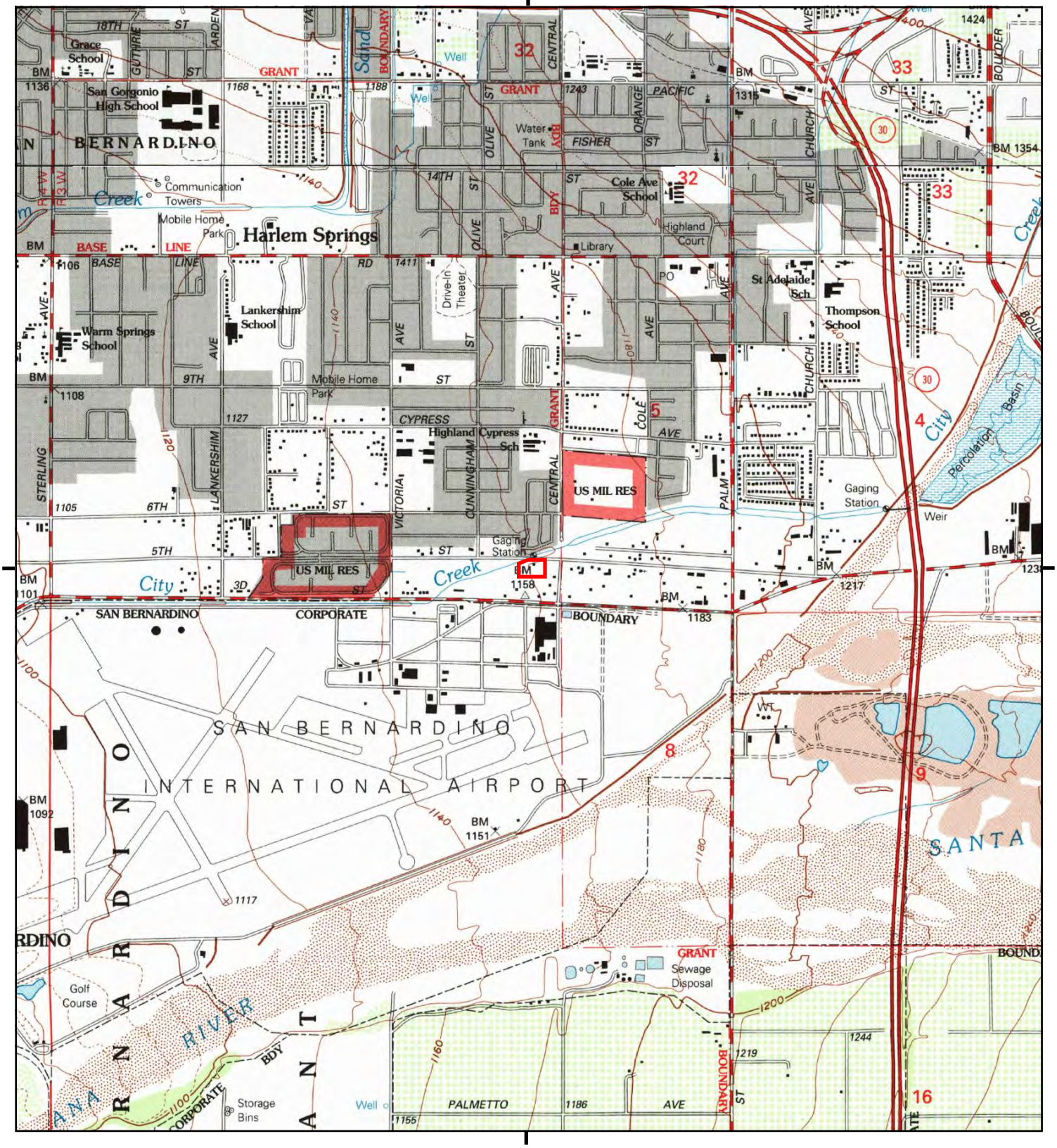
TP, Redlands, 2012, 7.5-minute
N, Harrison Mountain, 2012, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N

Historical Topo Map

1996



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

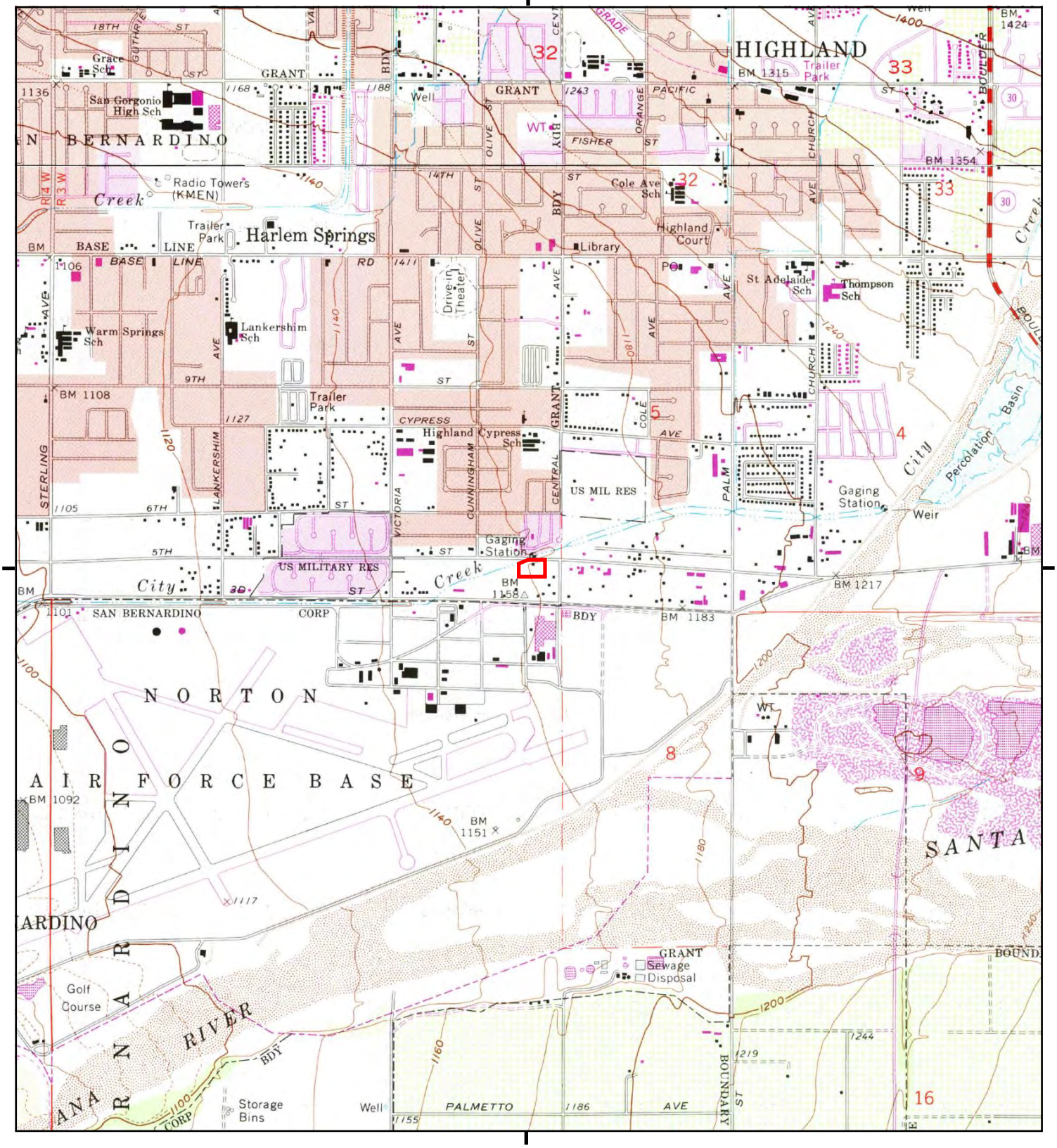
TP, Redlands, 1996, 7.5-minute
N, Harrison Mountain, 1996, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N

Historical Topo Map

1988



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

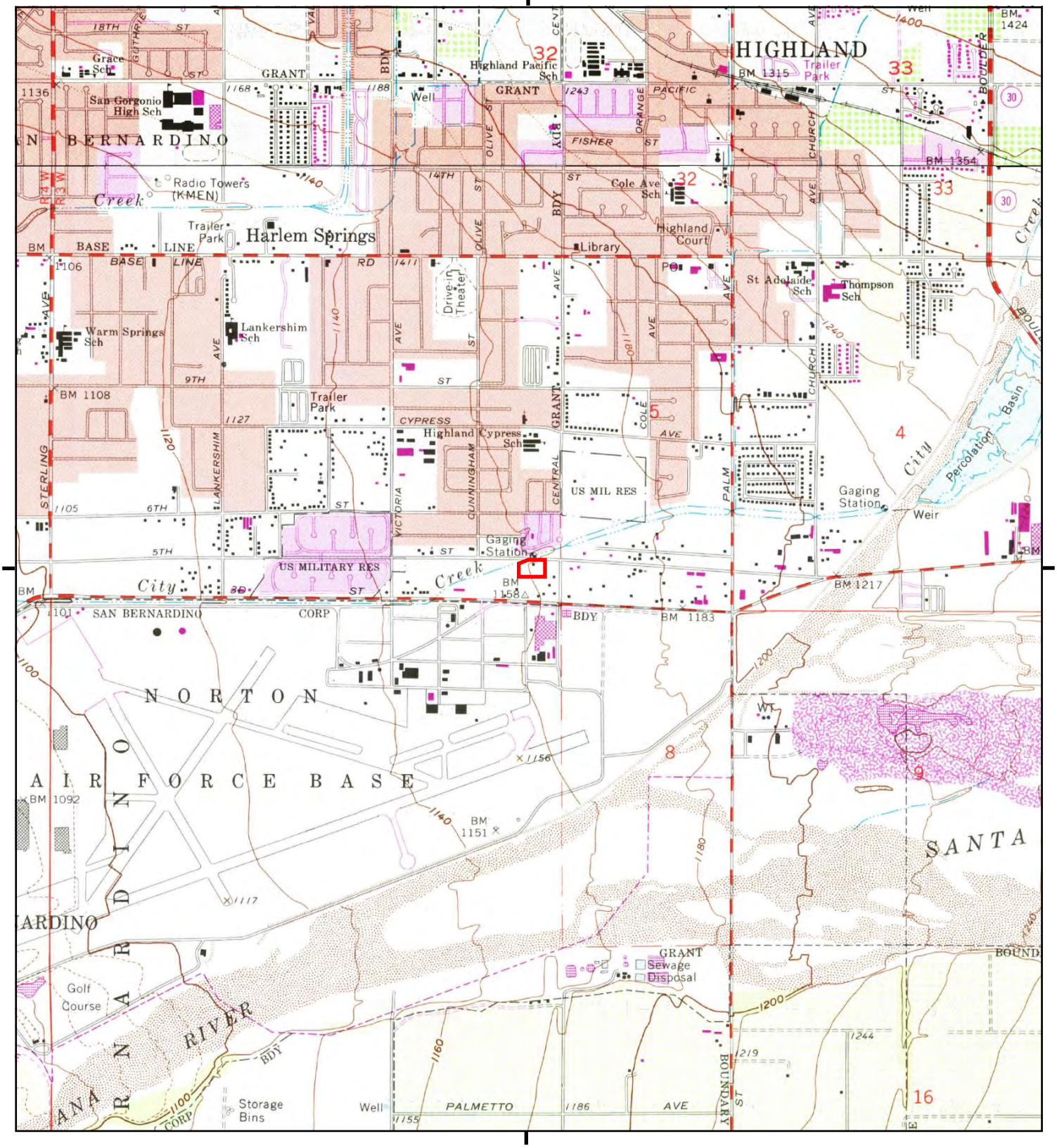
TP, Redlands, 1988, 7.5-minute
N, Harrison Mtn., 1988, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N

Historical Topo Map

1980



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Redlands, 1980, 7.5-minute
N, Harrison Mtn., 1980, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

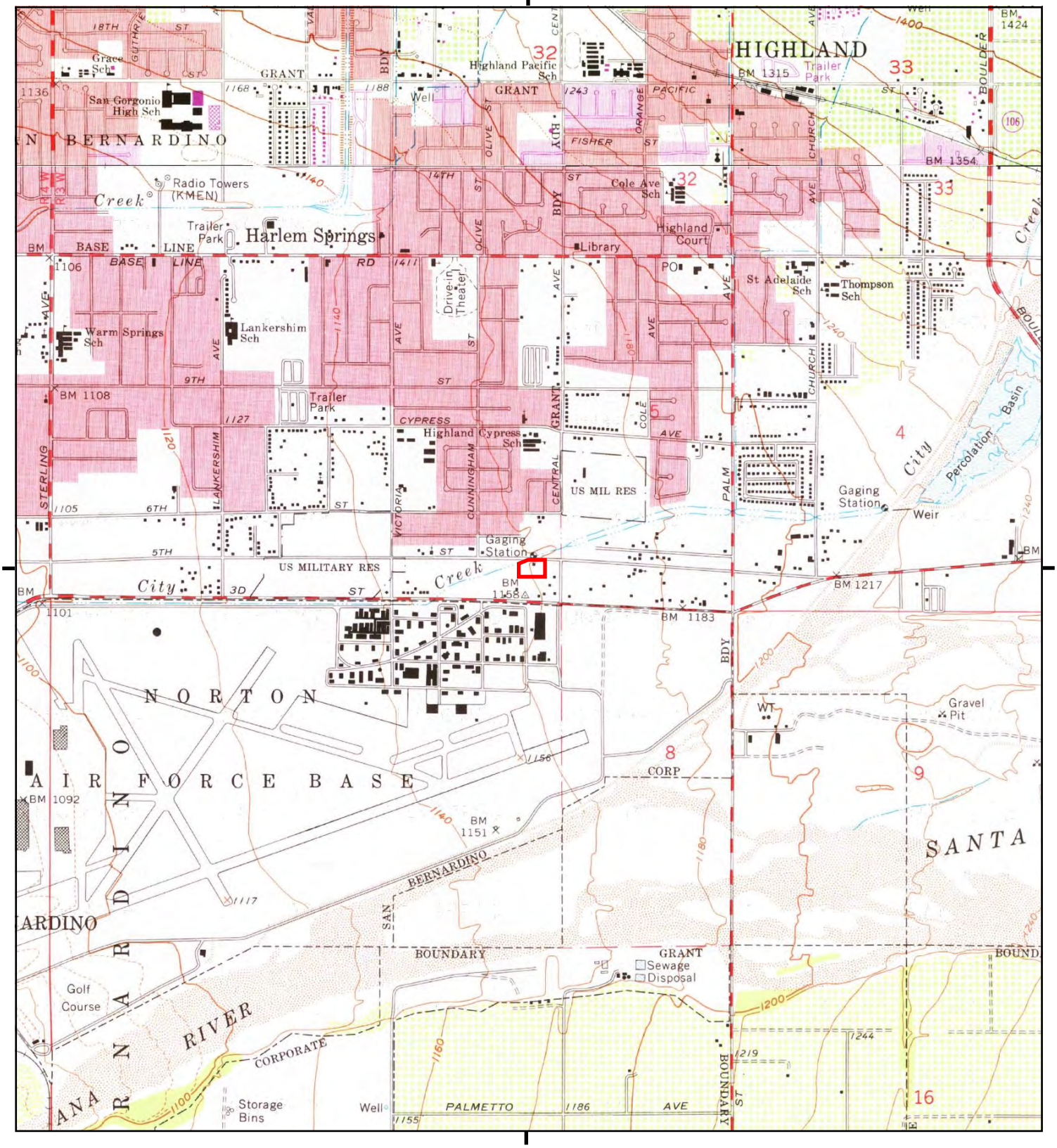
TP, Redlands, 1975, 7.5-minute
N, Harrison Mtn., 1975, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

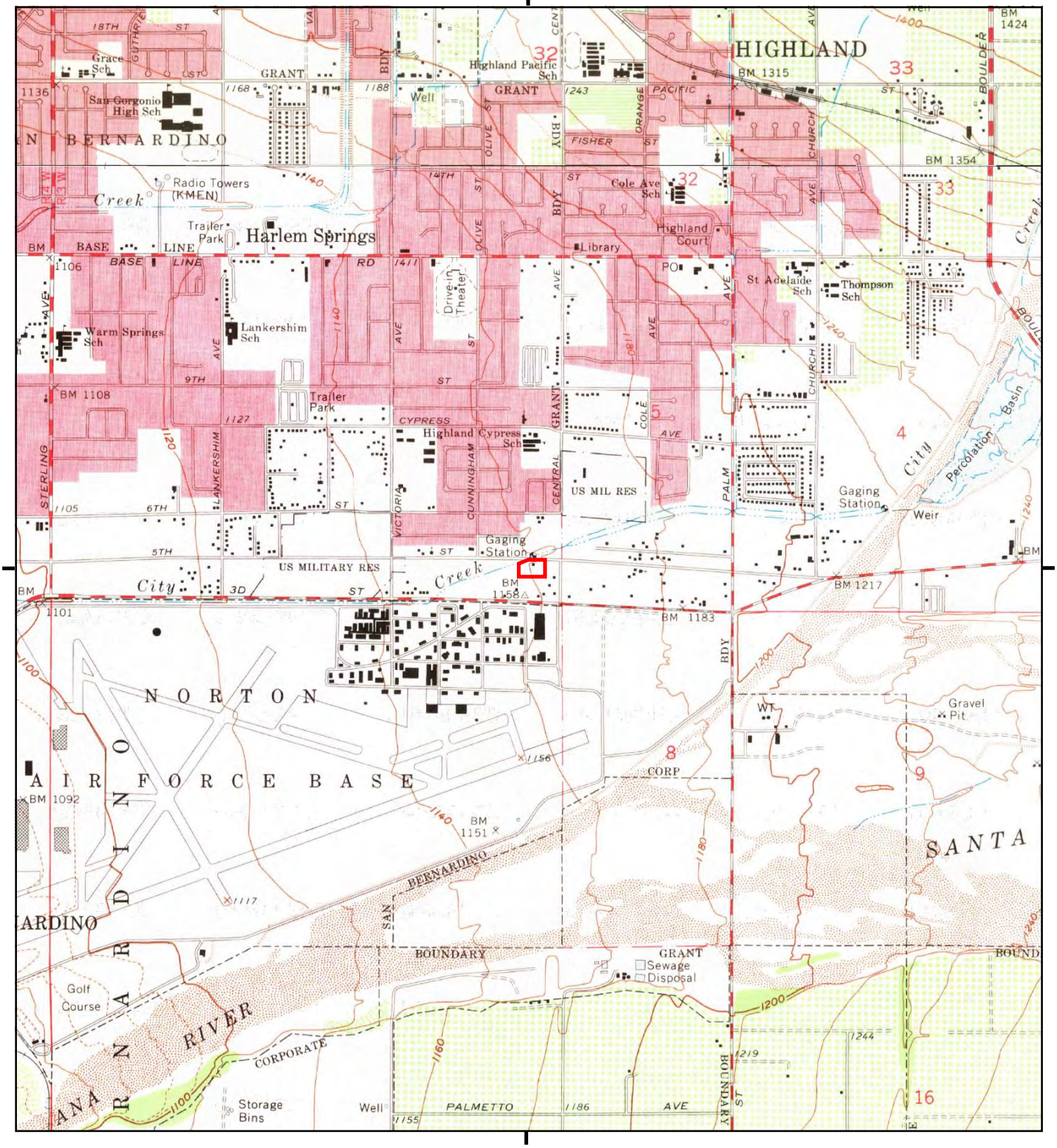
TP, Redlands, 1973, 7.5-minute
N, Harrison Mtn, 1973, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N

Historical Topo Map

1967



This report includes information from the following map sheet(s).

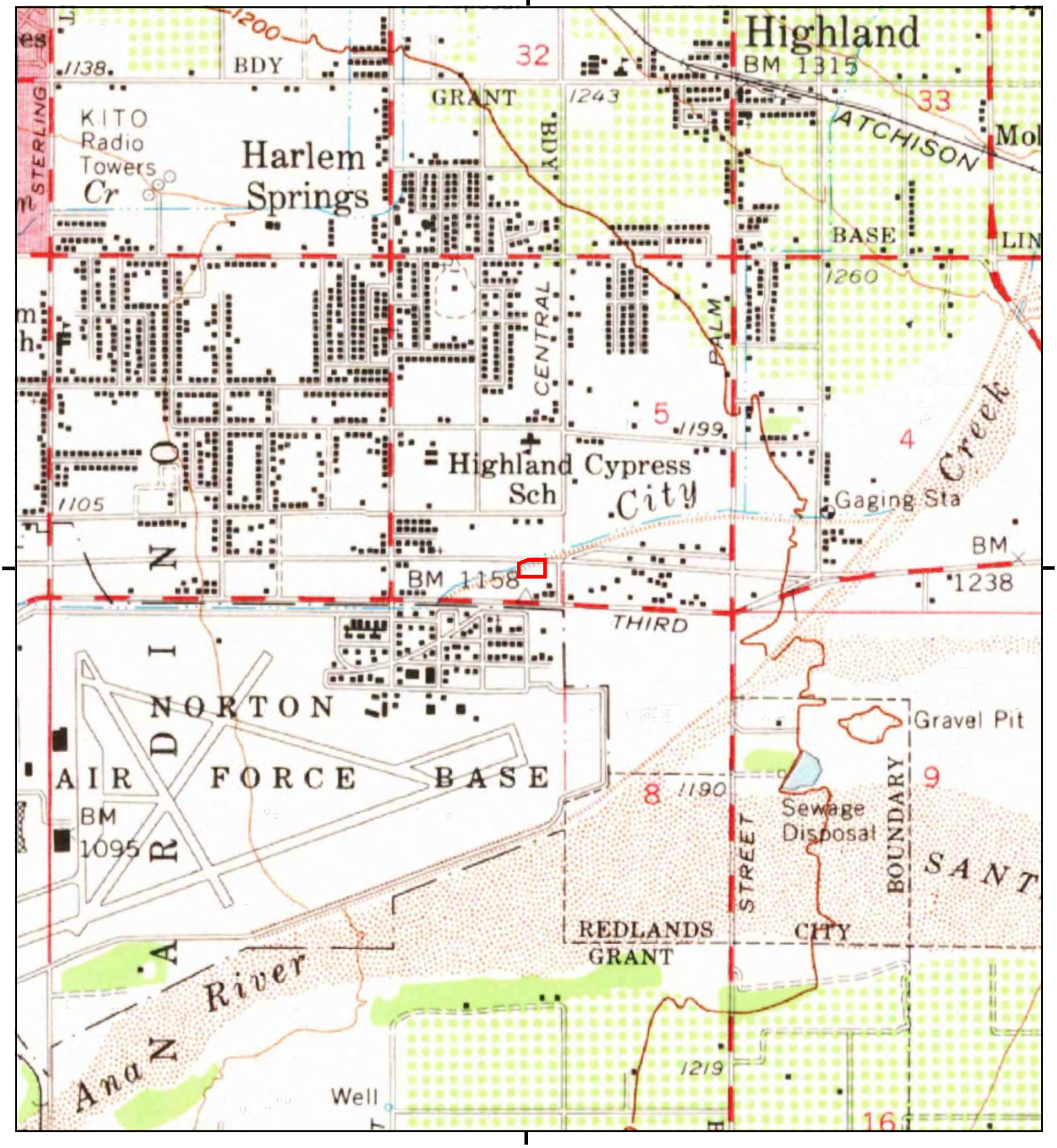
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Redlands, 1967, 7.5-minute
N, Harrison Mtn., 1967, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N



This report includes information from the following map sheet(s).

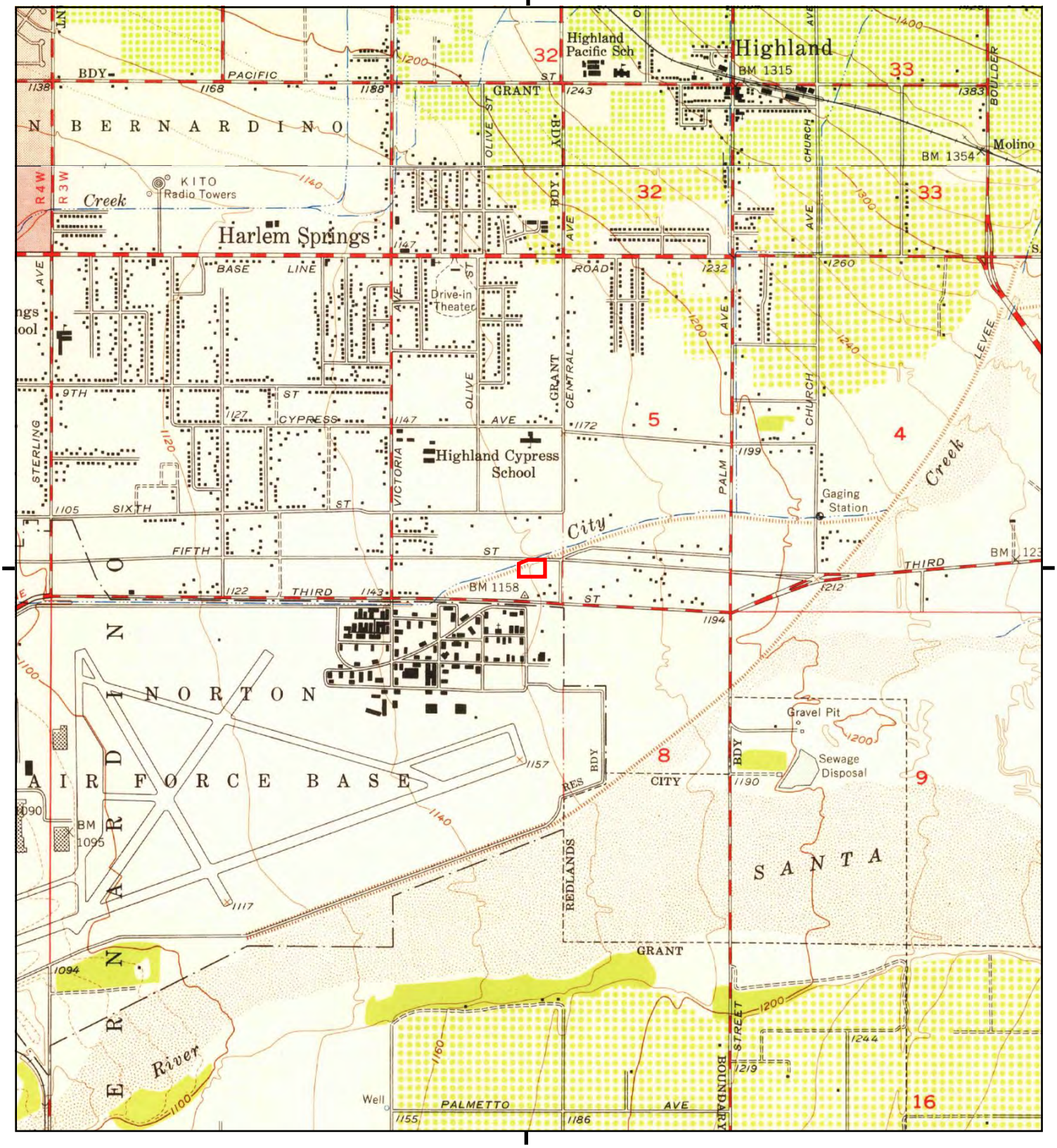
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Redlands, 1954, 15-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N



This report includes information from the following map sheet(s).

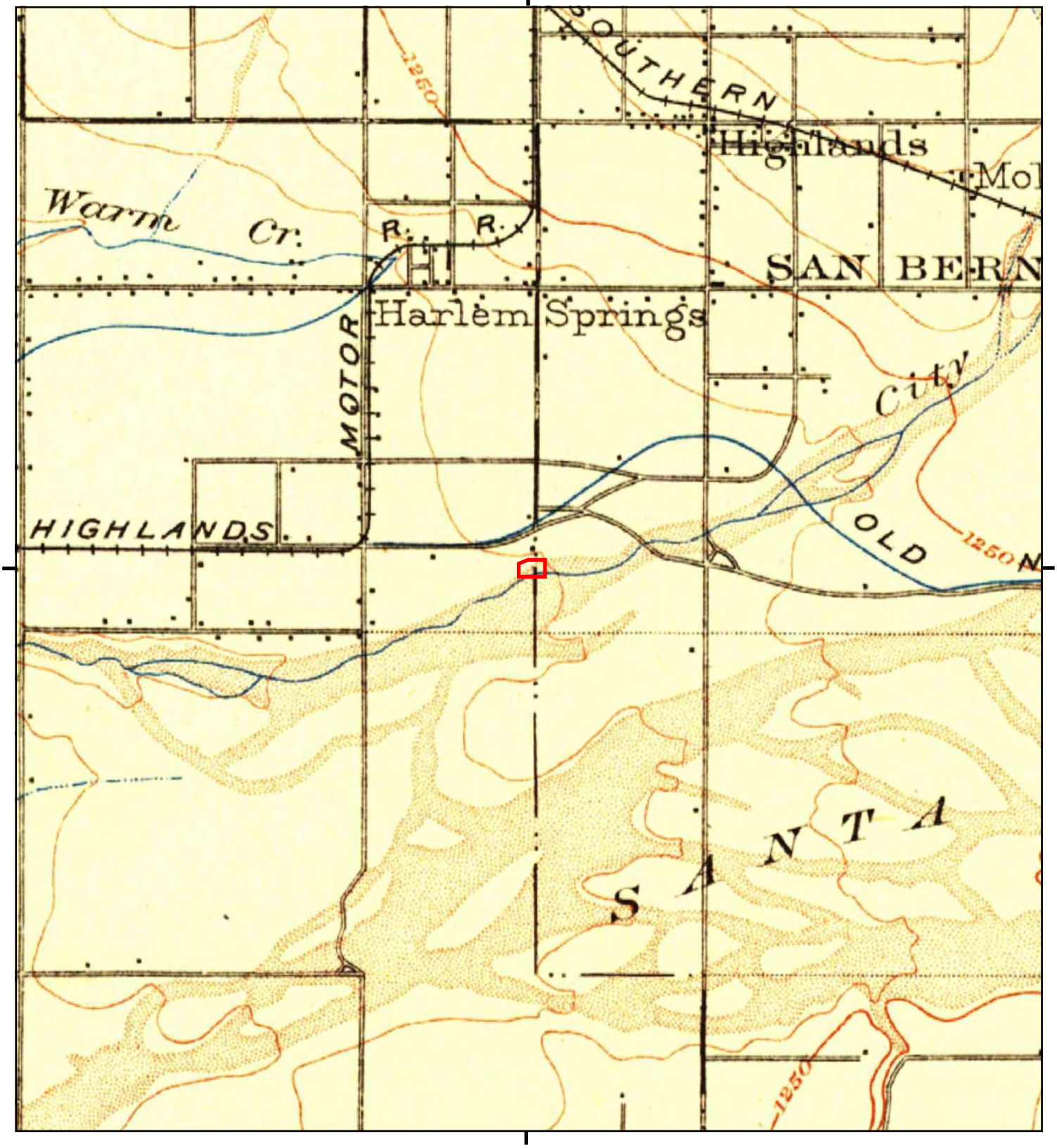
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Redlands, 1954, 7.5-minute
N, Harrison Mtn., 1953, 7.5-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N



This report includes information from the following map sheet(s).

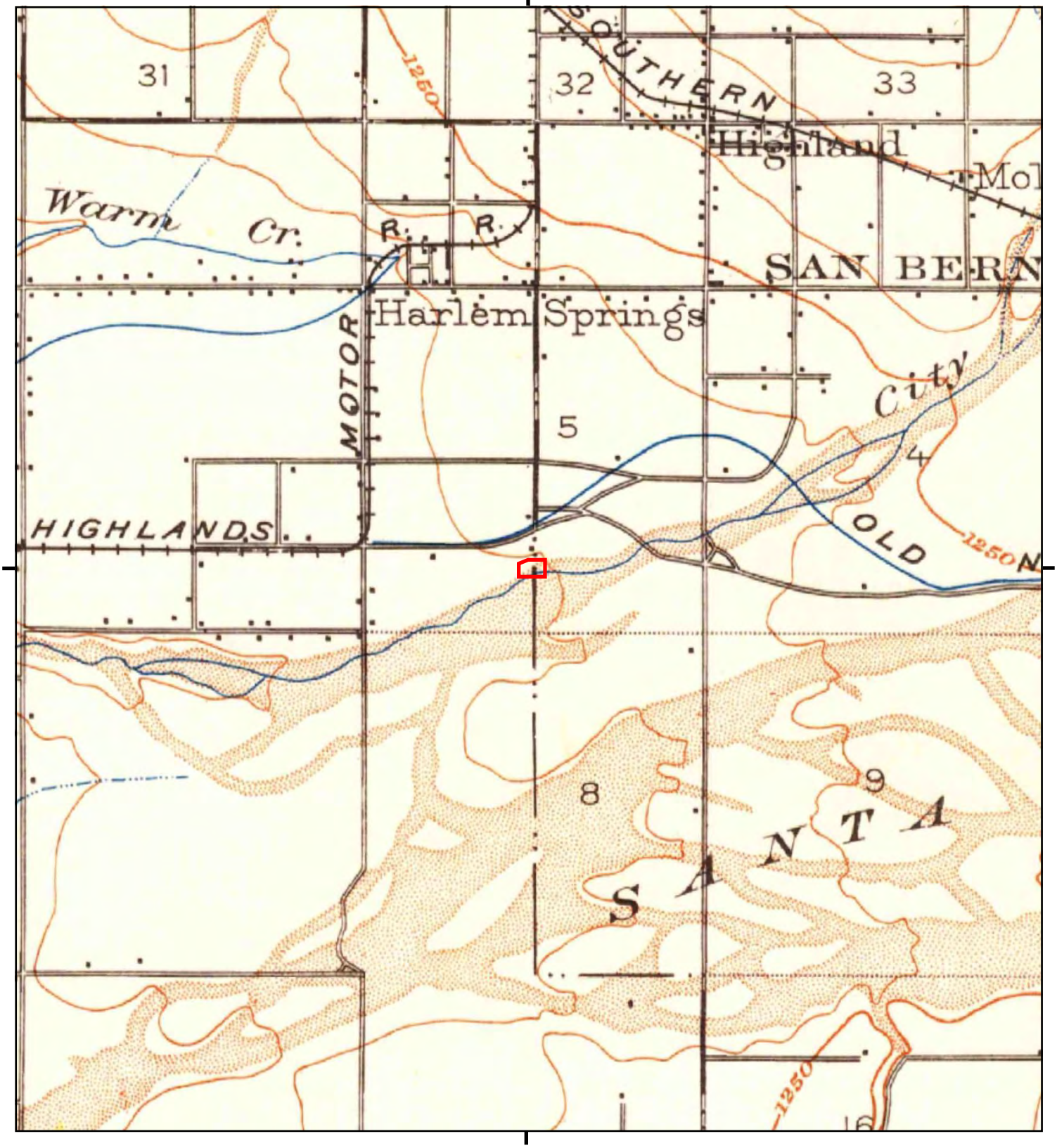
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Redlands, 1901, 15-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Redlands, 1899, 15-minute

SITE NAME: 26811 5th St
ADDRESS: 26811 5th St
Highland, CA 92346
CLIENT: Hazard Management Consulting

N

26811 5th St

26811 5th St

Highland, CA 92346

Inquiry Number: 7120439.8

September 16, 2022

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Shelton, CT 06484
Toll Free: 800.352.0050
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EDR Aerial Photo Decade Package

09/16/22

Site Name:

26811 5th St
26811 5th St
Highland, CA 92346
EDR Inquiry # 7120439.8

Client Name:

Hazard Management Consulting
211 W. Avenida Cordoba
San Clemente, CA 92672
Contact: Troy Taylor

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Search Results:

Year	Scale	Details	Source
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
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1994	1"=500'	Acquisition Date: January 01, 1994	USGS/DOQQ
1989	1"=500'	Flight Date: August 15, 1989	USDA
1985	1"=500'	Flight Date: July 28, 1985	USDA
1975	1"=500'	Flight Date: December 01, 1975	USGS
1968	1"=500'	Flight Date: August 22, 1968	USDA
1966	1"=500'	Flight Date: April 16, 1966	USGS
1959	1"=500'	Flight Date: October 16, 1959	USDA
1953	1"=500'	Flight Date: January 15, 1953	USDA
1949	1"=500'	Flight Date: May 08, 1949	USDA
1938	1"=500'	Flight Date: June 03, 1938	USDA
1930	1"=500'	Flight Date: March 25, 1930	FAIR

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INQUIRY #: 7120439.8
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 2002
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 1994
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 1989
= 500'
N
EDR

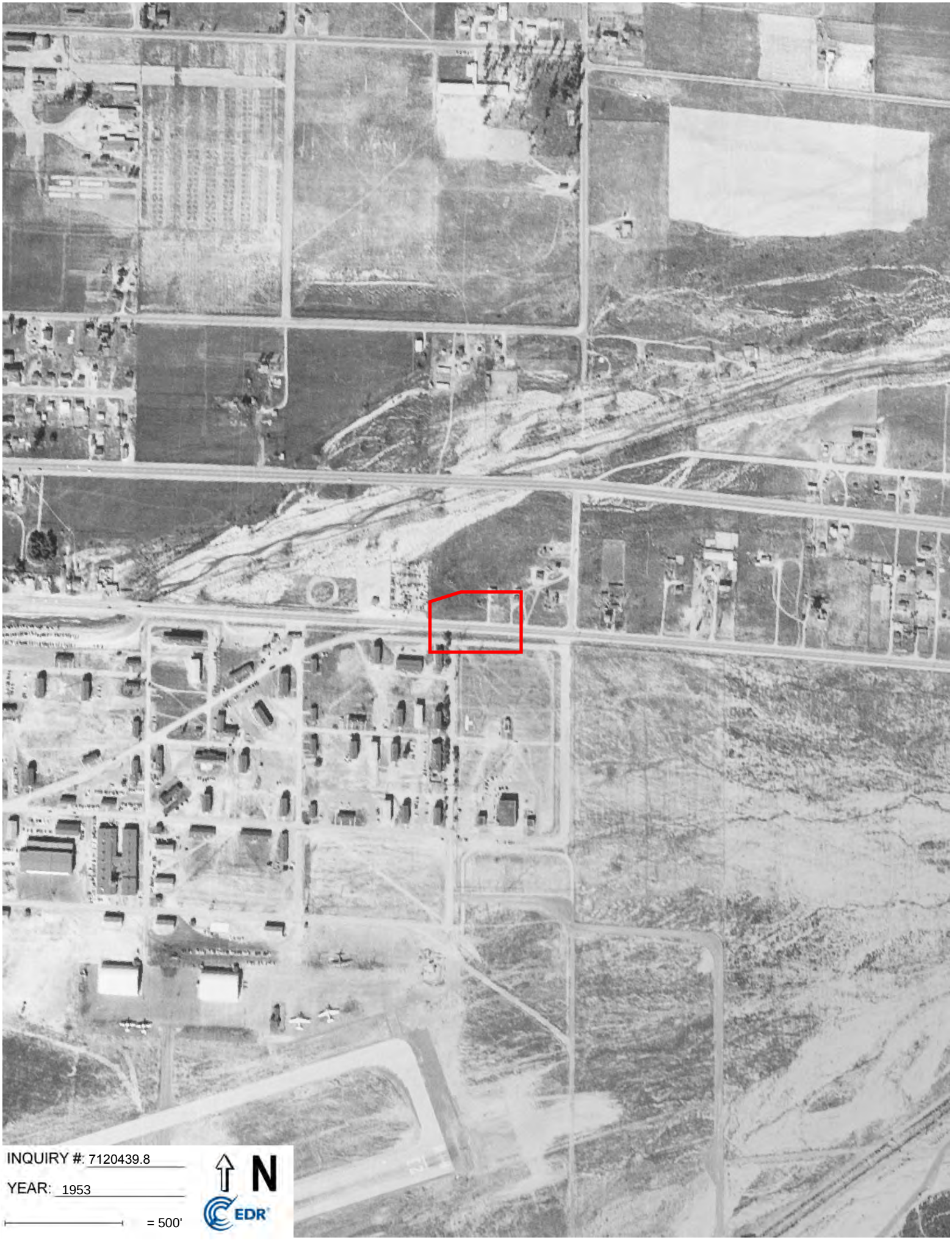

INQUIRY #: 7120439.8
YEAR: 1985
= 500'
N
EDR

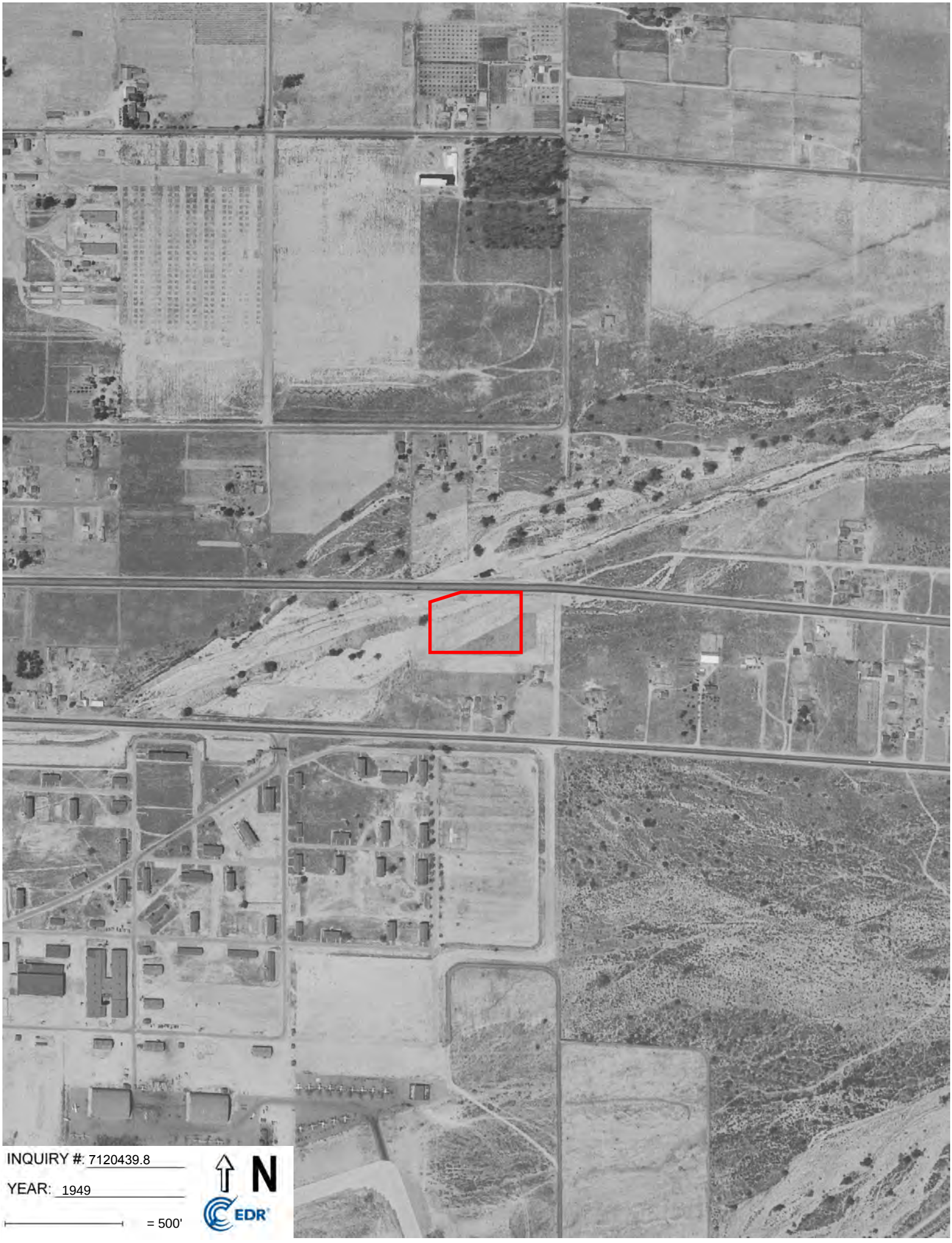

INQUIRY #: 7120439.8
YEAR: 1975
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 1968
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 1966
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 1959
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 1953
= 500'
N
EDR


INQUIRY #: 7120439.8
YEAR: 1949
= 500'
N
EDR



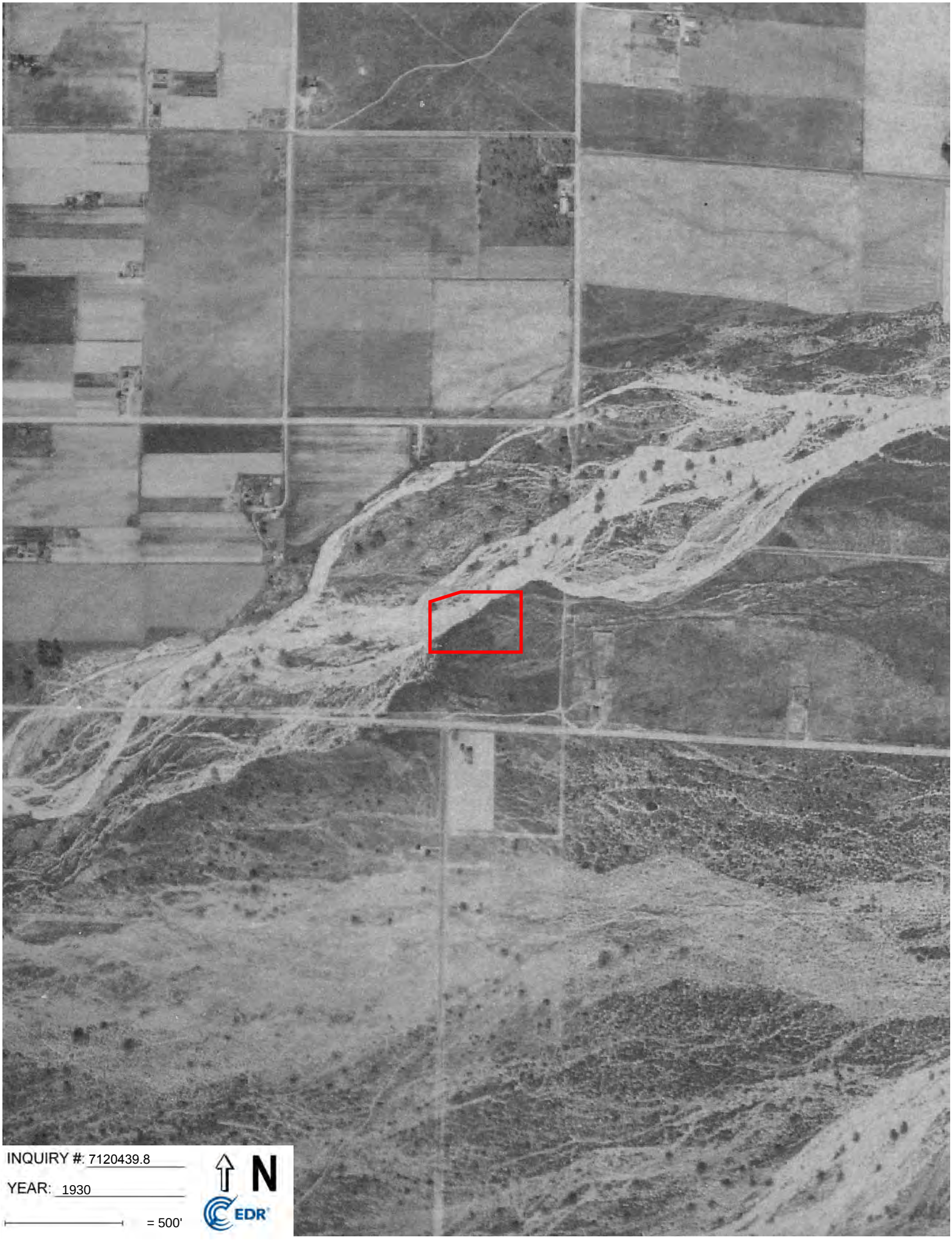
INQUIRY #: 7120439.8

YEAR: 1938

= 500'

N

EDR


INQUIRY #: 7120439.8
YEAR: 1930
= 500'
N
EDR

26811 5th St
26811 5th St
Highland, CA 92346

Inquiry Number: 7120439.2s
September 16, 2022

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.
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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

26811 5TH ST
HIGHLAND, CA 92346

COORDINATES

Latitude (North):	34.1079200 - 34ˆ 6' 28.51''
Longitude (West):	117.2191620 - 117ˆ 13' 8.98''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	479786.0
UTM Y (Meters):	3773949.0
Elevation:	1163 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	12014994 REDLANDS, CA
Version Date:	2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
26811 5TH ST
HIGHLAND, CA 92346

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	NORTON AIR FORCE BAS	I-10/US 395 FORMER N	NPL, SEMS, CORRACTS, RCRA-TSDF, RCRA-SQG, US ENG..	Same	489, 0.093, South
1	JOSE HUIZAR	26875 4TH PL	RCRA NonGen / NLR	Higher	137, 0.026, SE
A2	DEYANIRA REQUENES	26880 MOSSWAY ST	RCRA NonGen / NLR	Higher	362, 0.069, NNE
A3	DEYANIRA REQUENES	26880 MOSSWAY ST	RCRA NonGen / NLR	Higher	362, 0.069, NNE
B4	S&S MOTORS INC (DBA)	26967 5TH ST	RCRA NonGen / NLR	Higher	401, 0.076, East
B5	S&S INLANDSTAR	26967 5TH ST	CA CERS HAZ WASTE, CA San Bern. Co. Permit, CA...	Higher	401, 0.076, East
C6	WYLE LABS SBO EAST D	3505 E 3RD ST	RCRA-SQG	Higher	449, 0.085, SE
C7	WYLE LABS EAST TEST	3505 E 3RD ST	CA San Bern. Co. Permit	Higher	449, 0.085, SE
C8	NATIONAL TECHNICAL S	3505 E THIRD ST	RCRA NonGen / NLR	Higher	449, 0.085, SE
C9	NATIONAL TECHNICAL S	3505 E THIRD ST	CA AST, CA CERS HAZ WASTE, CA CERS TANKS, CA San...	Higher	449, 0.085, SE
B10	ELITE LAWN & LANDSCA	26975 5TH ST	CA San Bern. Co. Permit	Higher	500, 0.095, East
D11	CANDY'S	26698 3RD ST	CA San Bern. Co. Permit	Lower	561, 0.106, WSW
A12	CITY OF HIGHLAND OPE	7935 CENTRAL AVE	RCRA NonGen / NLR	Higher	563, 0.107, NE
A13	CITY OF HIGHLAND-OPE	7935 CENTRAL	CA CERS HAZ WASTE, CA San Bern. Co. Permit, CA...	Higher	563, 0.107, NE
D14	NOBLE METAL LABS INC	26672 3RD ST	RCRA NonGen / NLR	Lower	606, 0.115, WSW
D15	NOBLE METAL LAB INC	26672 THIRD ST	RCRA NonGen / NLR	Lower	606, 0.115, WSW
D16	NOBLE METAL LAB	26672 3RD ST	CA San Bern. Co. Permit	Lower	606, 0.115, WSW
D17	JC'S AUTO REPAIR	26670 3RD ST	CA CERS HAZ WASTE, CA San Bern. Co. Permit, CA...	Lower	609, 0.115, WSW
E18	MEYER CONSTRUCTORS	26999 5TH ST	CA HIST UST	Higher	803, 0.152, East
E19	MEYER CONSTRUCTORS	26999 5TH STREET	CA HIST UST, CA NPDES, CA CIWQS	Higher	803, 0.152, East
E20	EJ MEYER	26999 E 5TH STREET	RCRA NonGen / NLR	Higher	859, 0.163, East
E21	E.J. MEYER COMPANY	26999 E 5TH ST	CA CERS HAZ WASTE, CA San Bern. Co. Permit, CA...	Higher	859, 0.163, East
E22	MAYFLOWER CONTRACT S	26999 E 5TH STREET	RCRA-SQG, FINDS, ECHO	Higher	859, 0.163, East
F23	NORTON AIR FORCE BAS	106TH ST	CA UST	Higher	865, 0.164, SE
F24	NORTON AIR FORCE BAS	106TH ST	CA CERS TANKS	Higher	865, 0.164, SE
F25	MATICH CORPORATION	3231 E 3RD ST	CA AST, CA CERS HAZ WASTE, CA CERS TANKS, CA San...	Higher	880, 0.167, SSE
F26	MATICH CORP	3231 E 3RD ST	RCRA NonGen / NLR	Higher	880, 0.167, SSE
E27	CSR AIR CONDITIONING	27015 E 5TH ST	RCRA NonGen / NLR	Higher	952, 0.180, East
G28	HOME SAVINGS OF AMER	26674 WARD ST	RCRA-SQG	Lower	995, 0.188, WNW
29	CONNIE ROBLES	7858 CENTRAL AVENUE	RCRA NonGen / NLR	Higher	1056, 0.200, NNE
F30	NORTON AFB LANDFILL	I-10/US 395 FORMER N	CA SWF/LF, CA CERS	Higher	1099, 0.208, SE
H31	YVONNE MIRANDA	26731 FLEMING ST	RCRA NonGen / NLR	Lower	1164, 0.220, NNW
G32	REIMUNDO BALLESTEROS	26659 6TH STREET	RCRA NonGen / NLR	Lower	1172, 0.222, NW
H33	JONATHAN P BENSON AN	7865 CUNNINGHAM ST	RCRA NonGen / NLR	Lower	1189, 0.225, NNW
34	PENSKE	27056 5TH ST	RCRA NonGen / NLR	Higher	1204, 0.228, East
35	MONTE MOUNT	7827 COLWYN AVE	RCRA NonGen / NLR	Higher	1263, 0.239, North
I36	NORTON AIR FORCE BAS	W STREET	CA UST	Higher	1268, 0.240, SSE
I37	NORTON AIR FORCE BAS	W STREET	CA CERS TANKS	Higher	1268, 0.240, SSE
38	FORMER SKEET RANGE N		UXO	Higher	2410, 0.456, SSE

MAPPED SITES SUMMARY

Target Property Address:
26811 5TH ST
HIGHLAND, CA 92346

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
J39	SAFETY-KLEEN CORP	7979 PALM AVE	CA LUST, CA CERS HAZ WASTE, CA SWEEPS UST, CA HIST...	Higher	3021, 0.572, East
J40	SAFETY-KLEEN SYSTEMS	7979 PALM AVE #E	CA ENVIROSTOR	Higher	3021, 0.572, East
J41	SAFETY-KLEEN SYSTEMS	7979 PALM AVENUE	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-LQG, US...	Higher	3021, 0.572, East
K42	NORTON AIR FORCE BAS	2,208 ACRES;58 MI EA	CA ENVIROSTOR, CA HIST Cal-Sites, CA DEED	Lower	3681, 0.697, SW
K43	NORTON AIR FORCE BAS	NORTON AIR FORCE BAS	CA BOND EXP. PLAN	Lower	3681, 0.697, SW
K44	NORTON A F B BLDG 62	D ST	CA LUST, CA Toxic Pits, CA HIST CORTESE	Lower	3681, 0.697, SW
45	FORMER SKEET RANGE N		UXO	Lower	3736, 0.708, South
46	CYPRESS II ELEMENTAR	BASELINE/SOUTH ALLEN	CA ENVIROSTOR, CA SCH	Higher	4573, 0.866, North
L47	AAC SUPPLY DEPOT		CA ENVIROSTOR	Lower	4962, 0.940, SW
L48	NORTON COMM FAC		CA ENVIROSTOR	Lower	4985, 0.944, WSW
L49	NORTON COMMUNICATION		FUDS	Lower	4986, 0.944, WSW

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

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

Lists of Federal RCRA 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

Federal ERNS list

ERNS ---------- Emergency Response Notification System

Lists of state- and tribal (Superfund) equivalent sites

CA RESPONSE ---------- State Response Sites

Lists of state and tribal leaking storage tanks

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
CA CPS-SLIC ---------- Statewide SLIC Cases

Lists of state and tribal registered storage tanks

FEMA UST ---------- Underground Storage Tank Listing

INDIAN UST ---- Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

CA VCP ---- Voluntary Cleanup Program Properties
INDIAN VCP ---- Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

CA BROWNFIELDS ---- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

CA WMUDS/SWAT ---- Waste Management Unit Database
CA SWRCY ---- Recycler Database
CA 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
CA CDL ---- Clandestine Drug Labs
US CDL ---- National Clandestine Laboratory Register
CA AQUEOUS FOAM ---- Former Fire Training Facility Assessments Listing
CA PFAS ---- PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

CA FID UST ---- Facility Inventory Database

Local Land Records

CA LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CA LDS ---- Land Disposal Sites Listing
CA MCS ---- Military Cleanup Sites Listing
CA SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOD ---- Department of Defense Sites

EXECUTIVE SUMMARY

SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
EPA WATCH LIST	EPA WATCH LIST
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA Cortese	"Cortese" Hazardous Waste & Substances Sites List
CA CUPA Listings	CUPA Resources List
CA DRYCLEANERS	Cleaner Facilities
CA EMI	Emissions Inventory Data
CA ENF	Enforcement Action Listing
CA Financial Assurance	Financial Assurance Information Listing
CA HAZNET	Facility and Manifest Data
CA ICE	ICE
CA HWT	Registered Hazardous Waste Transporter Database
CA MINES	Mines Site Location Listing
CA MWMP	Medical Waste Management Program Listing
CA PEST LIC	Pesticide Regulation Licenses Listing
CA PROC	Certified Processors Database
CA Notify 65	Proposition 65 Records
CA UIC	UIC Listing
CA UIC GEO	UIC GEO (GEOTRACKER)
CA WASTEWATER PITS	Oil Wastewater Pits Listing
CA WIP	Well Investigation Program Case List
CA MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
CA PROJECT	PROJECT (GEOTRACKER)
CA WDR	Waste Discharge Requirements Listing
CA NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
CA OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
CA PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
CA SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
CA WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)

MINES MRDS Mineral Resources Data 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

CA RGA LF Recovered Government Archive Solid Waste Facilities List
CA 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 NPL (Superfund) sites

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS Cerclis ID:: 902760 EPA Id: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

EXECUTIVE SUMMARY

Lists of Federal sites subject to CERCLA removals and CERCLA orders

SEMS: 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 know 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.

A review of the SEMS list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS Site ID: 0902760 EPA Id: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 06/20/2022 has revealed that there are 2 CORRACTS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***
SAFETY-KLEEN SYSTEMS EPA ID:: CAT000613927	***7979 PALM AVENUE***	***E 1/2 - 1 (0.572 mi.)***	***J41***	***240***

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 06/20/2022 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

EPA ID:: CA4570024345

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 06/20/2022 has revealed that there are 4 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***
WYLE LABS SBO EAST D EPA ID:: CAR000169649	3505 E 3RD ST	SE 0 - 1/8 (0.085 mi.)	C6	112
MAYFLOWER CONTRACT S EPA ID:: CAD982433757	***26999 E 5TH STREET***	***E 1/8 - 1/4 (0.163 mi.)***	***E22***	***156***

Lower Elevation	Address	Direction / Distance	Map ID	Page
HOME SAVINGS OF AMER EPA ID:: CAP000043778	26674 WARD ST	WNW 1/8 - 1/4 (0.188 mi.)	G28	176

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 05/16/2022 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345 EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

US INST CONTROLS: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROLS list, as provided by EDR, and dated 05/16/2022 has revealed that there is 1 US INST CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

EXECUTIVE SUMMARY

EPA ID:: CA4570024345

Lists of state- and tribal hazardous waste facilities

CA ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes 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 CA ENVIROSTOR list, as provided by EDR, and dated 04/25/2022 has revealed that there are 5 CA ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAFETY-KLEEN SYSTEMS Facility Id: 80001784 Status: No Further Action	7979 PALM AVE #E	E 1/2 - 1 (0.572 mi.)	J40	238
CYPRESS II ELEMENTAR Facility Id: 60000047 Status: Inactive - Withdrawn	***BASELINE/SOUTH ALLEN***	***N 1/2 - 1 (0.866 mi.)***	***46***	***458***

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS Facility Id: 36970004 Status: Active	***2,208 ACRES;58 MI EA***	***SW 1/2 - 1 (0.697 mi.)***	***K42***	***369***
AAC SUPPLY DEPOT Facility Id: 80000878 Status: Inactive - Needs Evaluation		SW 1/2 - 1 (0.940 mi.)	L47	461
NORTON COMM FAC Facility Id: 80001185 Status: Inactive - Needs Evaluation		WSW 1/2 - 1 (0.944 mi.)	L48	462

Lists of state and tribal landfills and solid waste disposal facilities

CA SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the CA SWF/LF list, as provided by EDR, has revealed that there is 1 CA SWF/LF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AFB LANDFILL Database: SWF/LF (SWIS), Date of Government Version: 05/09/2022	***I-10/US 395 FORMER N***	***SE 1/8 - 1/4 (0.208 mi.)***	***F30***	***181***

Operational Status: Closed
Facility ID: 36-AA-0312
Regulation Status: Unpermitted

Lists of state and tribal registered storage tanks

CA UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the CA UST list, as provided by EDR, has revealed that there are 2 CA UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS	106TH ST	SE 1/8 - 1/4 (0.164 mi.)	F23	159
Database: MILITARY UST SITES, Date of Government Version: 05/23/2022				
NORTON AIR FORCE BAS	W STREET	SSE 1/8 - 1/4 (0.240 mi.)	I36	195
Database: MILITARY UST SITES, Date of Government Version: 05/23/2022				

CA AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the CA AST list, as provided by EDR, has revealed that there are 2 CA AST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NATIONAL TECHNICAL S	***3505 E THIRD ST***	***SE 0 - 1/8 (0.085 mi.)***	***C9***	***118***
Database: AST, Date of Government Version: 07/06/2016				
MATICH CORPORATION	***3231 E 3RD ST***	***SSE 1/8 - 1/4 (0.167 mi.)***	***F25***	***160***
Database: AST, Date of Government Version: 07/06/2016				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CA HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the CA HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 CA HIST Cal-Sites site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS	***2,208 ACRES;58 MI EA***	***SW 1/2 - 1 (0.697 mi.)***	***K42***	***369***

CA 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 CA CERS HAZ WASTE list, as provided by EDR, and dated 04/18/2022 has revealed that there are 6 CA CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
S&S INLANDSTAR	***26967 5TH ST***	***E 0 - 1/8 (0.076 mi.)***	***B5***	***103***
NATIONAL TECHNICAL S	***3505 E THIRD ST***	***SE 0 - 1/8 (0.085 mi.)***	***C9***	***118***
CITY OF HIGHLAND-OPE	***7935 CENTRAL***	***NE 0 - 1/8 (0.107 mi.)***	***A13***	***128***
E.J. MEYER COMPANY	***26999 E 5TH ST***	***E 1/8 - 1/4 (0.163 mi.)***	***E21***	***151***
MATICH CORPORATION	***3231 E 3RD ST***	***SSE 1/8 - 1/4 (0.167 mi.)***	***F25***	***160***

Lower Elevation	Address	Direction / Distance	Map ID	Page
JC'S AUTO REPAIR	***26670 3RD ST***	***WSW 0 - 1/8 (0.115 mi.)***	***D17***	***139***

CA Toxic Pits: The Toxic Pits Cleanup Act Sites database identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. The data come from the State Water Resources Control Board.

A review of the CA Toxic Pits list, as provided by EDR, and dated 07/01/1995 has revealed that there is 1 CA Toxic Pits site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON A F B BLDG 62 Closure Date: / / Task #: 68009 Status: CLOSED	***D ST***	***SW 1/2 - 1 (0.697 mi.)***	***K44***	***456***

Local Lists of Registered Storage Tanks

CA HIST UST: Historical UST Registered Database.

A review of the CA HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 CA HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MEYER CONSTRUCTORS Facility Id: 00000059681	26999 5TH ST	E 1/8 - 1/4 (0.152 mi.)	E18	145
MEYER CONSTRUCTORS	***26999 5TH STREET***	***E 1/8 - 1/4 (0.152 mi.)***	***E19***	***146***

CA 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.

A review of the CA CERS TANKS list, as provided by EDR, and dated 04/18/2022 has revealed that there are 4 CA CERS TANKS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NATIONAL TECHNICAL S	***3505 E THIRD ST***	***SE 0 - 1/8 (0.085 mi.)***	***C9***	***118***
NORTON AIR FORCE BAS	106TH ST	SE 1/8 - 1/4 (0.164 mi.)	F24	160
MATICH CORPORATION	***3231 E 3RD ST***	***SSE 1/8 - 1/4 (0.167 mi.)***	***F25***	***160***
NORTON AIR FORCE BAS	W STREET	SSE 1/8 - 1/4 (0.240 mi.)	I37	196

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 06/20/2022 has revealed that there are 17 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JOSE HUIZAR EPA ID:: CAC003035088	26875 4TH PL	SE 0 - 1/8 (0.026 mi.)	1	93
DEYANIRA REQUENES EPA ID:: CAC003018813	26880 MOSSWAY ST	NNE 0 - 1/8 (0.069 mi.)	A2	95
DEYANIRA REQUENES EPA ID:: CAC003028051	26880 MOSSWAY ST	NNE 0 - 1/8 (0.069 mi.)	A3	98
S&S MOTORS INC (DBA) EPA ID:: CAL000405511	26967 5TH ST	E 0 - 1/8 (0.076 mi.)	B4	100
NATIONAL TECHNICAL S EPA ID:: CAL000398078	3505 E THIRD ST	SE 0 - 1/8 (0.085 mi.)	C8	116
CITY OF HIGHLAND OPE EPA ID:: CAL000339766	7935 CENTRAL AVE	NE 0 - 1/8 (0.107 mi.)	A12	126
EJ MEYER EPA ID:: CAL000258671	26999 E 5TH STREET	E 1/8 - 1/4 (0.163 mi.)	E20	149
MATICH CORP EPA ID:: CAL000314877	3231 E 3RD ST	SSE 1/8 - 1/4 (0.167 mi.)	F26	171
CSR AIR CONDITIONING EPA ID:: CAL000256584	27015 E 5TH ST	E 1/8 - 1/4 (0.180 mi.)	E27	173
CONNIE ROBLES EPA ID:: CAC003013162	7858 CENTRAL AVENUE	NNE 1/8 - 1/4 (0.200 mi.)	29	178
PENSKE EPA ID:: CAC003041416	27056 5TH ST	E 1/8 - 1/4 (0.228 mi.)	34	190
MONTE MOUNT EPA ID:: CAC003031813	7827 COLWYN AVE	N 1/8 - 1/4 (0.239 mi.)	35	193

Lower Elevation	Address	Direction / Distance	Map ID	Page
NOBLE METAL LABS INC EPA ID:: CAP000007934	26672 3RD ST	WSW 0 - 1/8 (0.115 mi.)	D14	132
NOBLE METAL LAB INC	26672 THIRD ST	WSW 0 - 1/8 (0.115 mi.)	D15	135

EPA ID:: CAP000182386				
YVONNE MIRANDA EPA ID:: CAC003125327	26731 FLEMING ST	NNW 1/8 - 1/4 (0.220 mi.)	H31	183
REIMUNDO BALLESTEROS EPA ID:: CAC002966722	26659 6TH STREET	NW 1/8 - 1/4 (0.222 mi.)	G32	185
JONATHAN P BENSON AN EPA ID:: CAC003096654	7865 CUNNINGHAM ST	NNW 1/8 - 1/4 (0.225 mi.)	H33	188

FUDS: 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.

A review of the FUDS list, as provided by EDR, and dated 05/11/2022 has revealed that there is 1 FUDS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON COMMUNICATION		WSW 1/2 - 1 (0.944 mi.)	L49	463

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

UXO: A listing of unexploded ordnance site locations

A review of the UXO list, as provided by EDR, and dated 12/31/2020 has revealed that there are 2 UXO sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER SKEET RANGE N		SSE 1/4 - 1/2 (0.456 mi.)	38	196

Lower Elevation	Address	Direction / Distance	Map ID	Page
FORMER SKEET RANGE N		S 1/2 - 1 (0.708 mi.)	45	457

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS	NORTON AIR FORCE BAS	SW 1/2 - 1 (0.697 mi.)	K43	455

CA HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the CA HWP list, as provided by EDR, and dated 05/16/2022 has revealed that there is 1 CA HWP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAFETY-KLEEN CORP EPA ID: CAT000613927 Cleanup Status: CLOSED	***7979 PALM AVE***	***E 1/2 - 1 (0.572 mi.)***	***J39***	***197***

San Bernardino County Fire Department Hazardous Materials Division.

A review of the CA San Bern. Co. Permit list, as provided by EDR, and dated 05/12/2022 has revealed that there are 10 CA San Bern. Co. Permit sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
S&S INLANDSTAR Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0015635 Facility Id: FA0010276 Facility Id: FA0004600	***26967 5TH ST***	***E 0 - 1/8 (0.076 mi.)***	***B5***	***103***
WYLE LABS EAST TEST Facility Status: INACTIVE Facility Id: FA0010413	3505 E 3RD ST	SE 0 - 1/8 (0.085 mi.)	C7	115
NATIONAL TECHNICAL S Facility Status: ACTIVE Facility Id: FA0016030	***3505 E THIRD ST***	***SE 0 - 1/8 (0.085 mi.)***	***C9***	***118***
ELITE LAWN & LANDSCA Facility Status: INACTIVE Facility Id: FA0002894	26975 5TH ST	E 0 - 1/8 (0.095 mi.)	B10	125
CITY OF HIGHLAND-OPE Facility Status: ACTIVE Facility Id: FA0011950	***7935 CENTRAL***	***NE 0 - 1/8 (0.107 mi.)***	***A13***	***128***
E.J. MEYER COMPANY Facility Status: ACTIVE Facility Id: FA0012324	***26999 E 5TH ST***	***E 1/8 - 1/4 (0.163 mi.)***	***E21***	***151***
MATICH CORPORATION Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0010796	***3231 E 3RD ST***	***SSE 1/8 - 1/4 (0.167 mi.)***	***F25***	***160***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CANDY'S Facility Status: INACTIVE Facility Id: FA0014643	26698 3RD ST	WSW 0 - 1/8 (0.106 mi.)	D11	126
NOBLE METAL LAB	26672 3RD ST	WSW 0 - 1/8 (0.115 mi.)	D16	138

Facility Status: INACTIVE
Facility Id: FA0004984

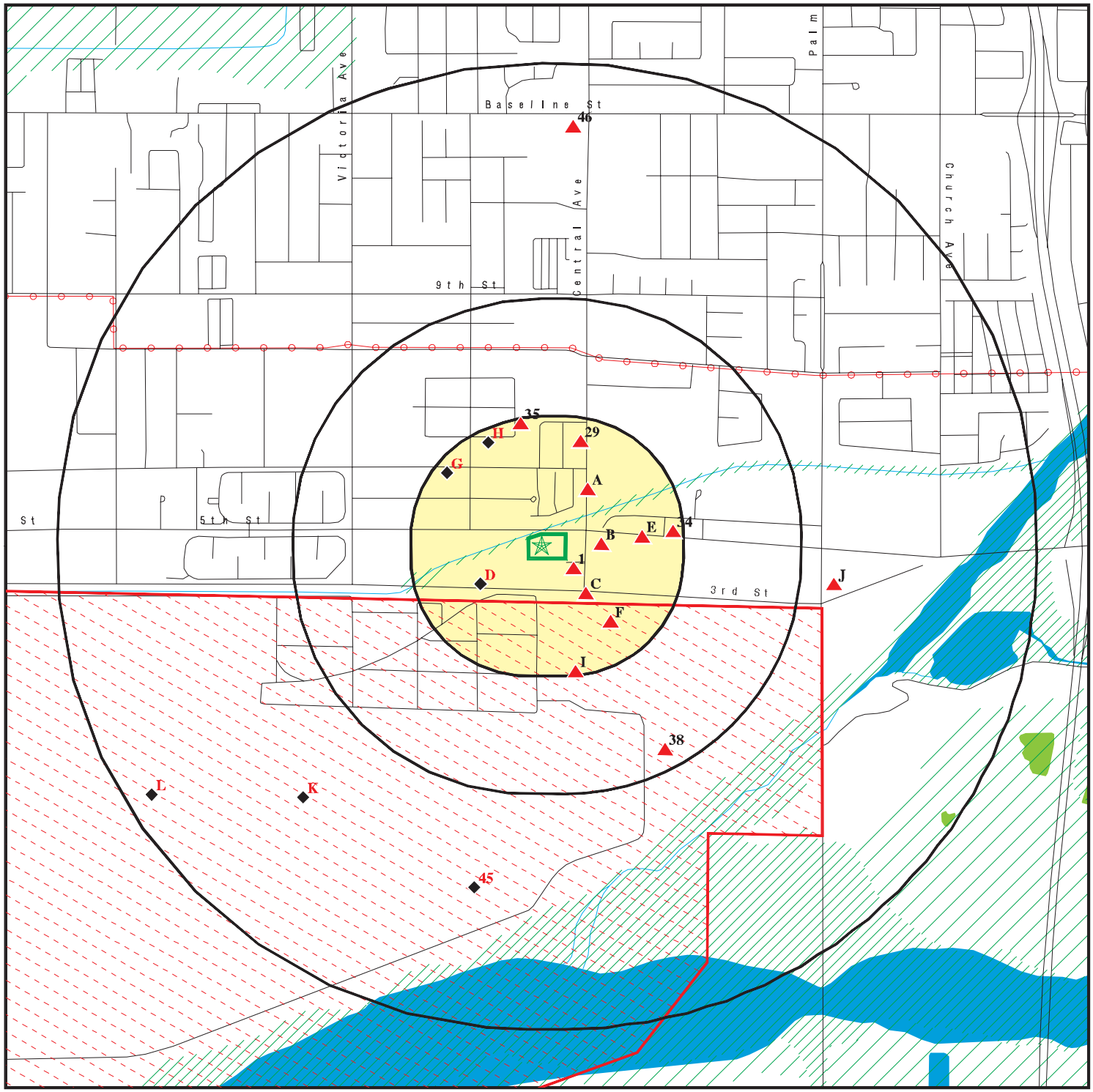
JC'S AUTO REPAIR ***26670 3RD ST*** ***WSW 0 - 1/8 (0.115 mi.)*** ***D17*** ***139***
Facility Status: ACTIVE
Facility Id: FA0004044

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.

Site Name	Database(s)
CIMA ROAD MINE WASTE SITE	CA CDL
SECCOMBE LAKE STATE REC AREA	SEMS
NORTON A F B BLDG 754	SEMS-ARCHIVE
	CA LUST

OVERVIEW MAP - 7120439.2S



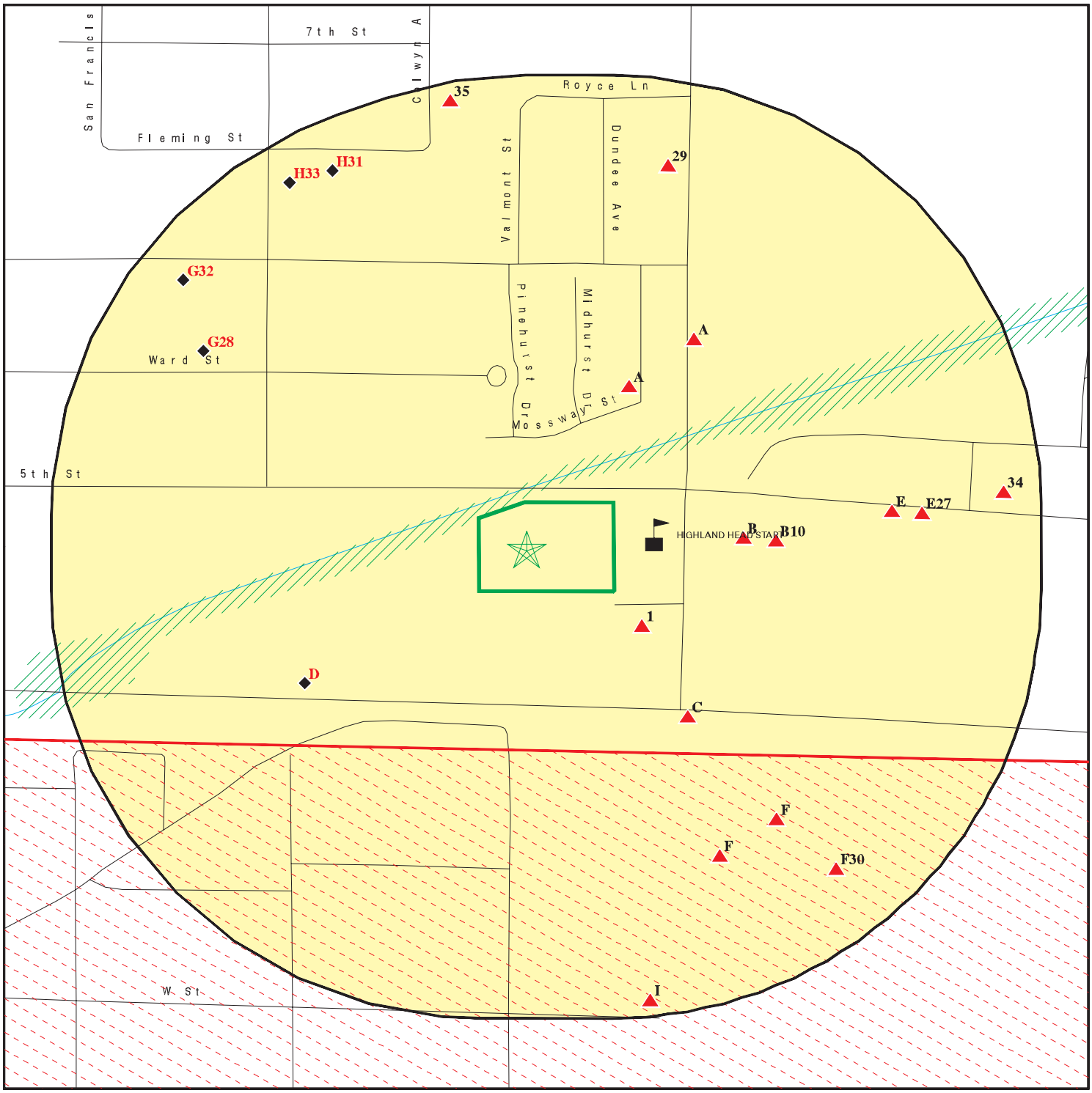
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 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: 26811 5th St	CLIENT: Hazard Management Consulting
ADDRESS: 26811 5th St Highland CA 92346	CONTACT: Troy Taylor
LAT/LONG: 34.10792 / 117.219162	INQUIRY #: 7120439.2s DATE: September 16, 2022 4:56 pm

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DETAIL MAP - 7120439.2S



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

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Areas of Concern

N

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: 26811 5th St ADDRESS: 26811 5th St Highland CA 92346 LAT/LONG: 34.10792 / 117.219162	CLIENT: Hazard Management Consulting CONTACT: Troy Taylor INQUIRY #: 7120439.2s DATE: September 16, 2022 4:57 pm

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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								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		1	0	0	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		1	0	0	NR	NR	1
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		1	0	0	1	NR	2
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		1	0	0	NR	NR	1
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		2	2	NR	NR	NR	4
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		1	0	0	NR	NR	1
US INST CONTROLS	0.500		1	0	0	NR	NR	1
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
CA RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
CA ENVIROSTOR	1.000		0	0	0	5	NR	5
Lists of state and tribal landfills and solid waste disposal facilities								
CA SWF/LF	0.500		0	1	0	NR	NR	1

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
Lists of state and tribal leaking storage tanks								
CA LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
CA CPS-SLIC	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
CA UST	0.250		0	2	NR	NR	NR	2
CA AST	0.250		1	1	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
CA VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
CA BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
CA WMUDS/SWAT	0.500		0	0	0	NR	NR	0
CA SWRCY	0.500		0	0	0	NR	NR	0
CA HAULERS	0.001		0	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
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CA HIST Cal-Sites	1.000		0	0	0	1	NR	1
CA SCH	0.250		0	0	NR	NR	NR	0
CA CDL	0.001		0	NR	NR	NR	NR	0
CA CERS HAZ WASTE	0.250		4	2	NR	NR	NR	6
CA Toxic Pits	1.000		0	0	0	1	NR	1
US CDL	0.001		0	NR	NR	NR	NR	0
CA AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
CA PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
CA SWEEPS UST	0.250		0	0	NR	NR	NR	0
CA HIST UST	0.250		0	2	NR	NR	NR	2
CA CERS TANKS	0.250		1	3	NR	NR	NR	4

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								
CA LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
CA DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CA CHMIRS	0.001		0	NR	NR	NR	NR	0
CA LDS	0.001		0	NR	NR	NR	NR	0
CA MCS	0.001		0	NR	NR	NR	NR	0
CA SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		8	9	NR	NR	NR	17
FUDS	1.000		0	0	0	1	NR	1
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		1	0	0	0	NR	1
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	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	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	1	1	NR	2
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
CA Cortese	0.500		0	0	0	NR	NR	0
CA CUPA Listings	0.250		0	0	NR	NR	NR	0
CA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA EMI	0.001		0	NR	NR	NR	NR	0
CA ENF	0.001		0	NR	NR	NR	NR	0
CA Financial Assurance	0.001		0	NR	NR	NR	NR	0
CA HAZNET	0.001		0	NR	NR	NR	NR	0
CA ICE	0.001		0	NR	NR	NR	NR	0
CA HIST CORTESE	0.500		0	0	0	NR	NR	0
CA HWP	1.000		0	0	0	1	NR	1
CA HWT	0.250		0	0	NR	NR	NR	0
NJ MANIFEST	0.250		0	0	NR	NR	NR	0
CA MINES	0.250		0	0	NR	NR	NR	0
CA MWMP	0.250		0	0	NR	NR	NR	0
CA NPDES	0.001		0	NR	NR	NR	NR	0
CA San Bern. Co. Permit	0.250		8	2	NR	NR	NR	10
CA PEST LIC	0.001		0	NR	NR	NR	NR	0
CA PROC	0.500		0	0	0	NR	NR	0
CA Notify 65	1.000		0	0	0	0	NR	0
CA UIC	0.001		0	NR	NR	NR	NR	0
CA UIC GEO	0.001		0	NR	NR	NR	NR	0
CA WASTEWATER PITS	0.500		0	0	0	NR	NR	0
CA WDS	0.001		0	NR	NR	NR	NR	0
CA WIP	0.250		0	0	NR	NR	NR	0
CA MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
CA PROJECT	0.001		0	NR	NR	NR	NR	0
CA WDR	0.001		0	NR	NR	NR	NR	0
CA CIWQS	0.001		0	NR	NR	NR	NR	0
CA CERS	0.001		0	NR	NR	NR	NR	0
CA NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
CA OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
CA PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
CA SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
CA WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
CA HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
CA RGA LF	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	31	24	1	12	0	68

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

NPL **NORTON AIR FORCE BASE (LNDFLL #2)** **NPL** **1000417274**
Region **I-10/US 395 FORMER NORTON AFB** **SEMS** **CA4570024345**
South **SAN BERNARDINO, CA 92408** **CORRACTS**
< 1/8 **RCRA-TSDF**
489 ft. **RCRA-SQG**
US ENG CONTROLS
US INST CONTROLS
ROD

NPL:

EPA Region:	9
EPA ID:	CA4570024345
Site ID:	902760
Name:	NORTON AIR FORCE BASE (LNDFLL #2)
Address:	I-10/US 395 FORMER NORTON AFB
City,State,Zip:	SAN BERNARDINO, CA 92408
Federal:	Y
Final Date:	1987-07-22 00:00:00
Latitude:	34.098061
Longitude:	-117.2372
Site Score:	39.649999999999999
NAI:	Not reported
Native American Entity:	Not reported

NPL:

NPL Status:	Currently on the Final NPL
Substance ID:	Not reported
CAS Number:	Not reported
Substance:	Not reported
Pathway:	Not reported
Scoring:	Not reported

NPL Status:	Currently on the Final NPL
Substance ID:	U211
CAS Number:	56-23-5
Substance:	CARBON TETRACHLORIDE
Pathway:	GROUND WATER PATHWAY
Scoring:	3

NPL Status:	Currently on the Final NPL
Substance ID:	U228
CAS Number:	79-01-6
Substance:	TRICHLOROETHYLENE (TCE)
Pathway:	GROUND WATER PATHWAY
Scoring:	2

Summary Details:

Conditions at proposal October 15, 1984): Norton Air Force Base covers approximately 2,036 acres 58 miles east of Los Angeles near the City of San Bernardino, San Bernardino County, California. It is in a low-lying alluvial plain surroundedon the north and east by the San Bernardino Mountain Range. The base began operations in 1942 and has served as a major overhaul center for jet engines and the general repair of aircraft. Since 1962, the facility has served as a Military Airlift Command Base. In addition, Norton formerly had the responsibility for providing maintenance and logistics for liquid-fuel intercontinental ballistic missiles. Past ha ardous waste management practices may have contributed to existingcontamination problems throughout the base. The practices include burial of drums and other unspecified materials; disposal of waste oils, solvents, and paint residues

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

into landfills, unlined pits, ponds, and drying beds; storage in leaking underground tanks; and spills of AVGAS, oils, solvents, PCBs, and acidic plating solutions. Industrial solvents have been used extensively on the base. Unknown quantities of spent solvents were disposed of in several base landfills.A well on the base has been contaminated with trichloroethylene TCE). The well water is currently being used in a blended system and is sampled quarterly to ensure that TCE is below the California State action level. The water is used by approximately ll,000 people who live and/or work on the base. Norton Air Force Base is participating in the Installation Restoration Program IRP), established in l978. Under this program, the Department of Defense seeks to identify, investigate, and clean up contamination from ha ardous materials. The Air Force has completed Phase I records search). Phase II remedial investigation) is underway. Status July 22, 1987): In November 1986, the California Regional Water Quality Control Board issued a Cleanup and Abatement Order requiring Norton to clean up one on-base area, the Industrial Waste Water Treatment Plant Sludge Drying Beds. Phase II-Stage 2 of the IRP was completed in December 1986. It focusedon characteri ation of the contamination at 18 on-base areas. More than 22 areas have been identified to date. Additional areas will be studied in Stage 3, scheduled to begin in the fall of 1987. Within the boundaries of this Federal facility, there are areas subject to the Subtitle C corrective action authorities of the Resource Conservation and Recovery Act RCRA). However, no such areas were included in scoring this specific site. Therefore, this Federal facility site isbeing placed on the Federal section of the NPL under the NPL/RCRA policy announced on September 8, 1983 48 FR 40662).

NPL:
NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-> 50 And <= 100 Feet
Category Value: 80

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 10

NPL:
NPL Name: NORTON AIR FORCE BASE (LNDFLL #2)

NPL:
EPA Region: 09
Site ID: 0902760
Site Status: F
Federal Site: Y
Date Deleted: Not reported
Date Finalized: 07/22/87
Date Proposed: 10/15/84

NPL:
Proposed Date: 10/15/1984
Final Date: 07/22/1987
Deleted Date: Not reported
NPL Status: Final

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

SEMS:
Site ID: 0902760
EPA ID: CA4570024345
Name: NORTON AIR FORCE BASE (LNDFLL #2)
Address: I-10/US 395 FORMER NORTON AFB
Address 2: Not reported
City,State,Zip: SAN BERNARDINO, CA 92408
Cong District: 31,40
FIPS Code: 06071
Latitude: 34.098061
Longitude: -117.237200
FF: Y
NPL: Currently on the Final NPL
Non NPL Status: Not reported

SEMS Detail:
Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 00
Action Code: AR
Action Name: ADMIN REC
SEQ: 1
Start Date: 2000-07-24 04:00:00
Finish Date: Not reported
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 00
Action Code: MA
Action Name: ST COOP
SEQ: 1
Start Date: 1989-04-30 04:00:00
Finish Date: 1994-06-30 04:00:00
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 00
Action Code: HR
Action Name: HAZRANK
SEQ: 1
Start Date: 1988-06-01 04:00:00

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Finish Date:	1988-06-01 04:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	00
Action Code:	CR
Action Name:	CI
SEQ:	1
Start Date:	1987-09-30 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	00
Action Code:	CM
Action Name:	PCOR
SEQ:	1
Start Date:	2006-05-16 04:00:00
Finish Date:	2006-05-16 04:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	01
Action Code:	LX
Action Name:	FF RD
SEQ:	1
Start Date:	1993-11-24 05:00:00
Finish Date:	1994-09-16 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	00
Action Code:	NP

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Action Name:	PROPOSED
SEQ:	1
Start Date:	1984-10-15 05:00:00
Finish Date:	1984-10-15 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	1984-04-01 06:00:00
Finish Date:	1984-04-01 06:00:00
Qual:	H
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	6
Start Date:	1996-03-25 05:00:00
Finish Date:	1997-04-22 04:00:00
Qual:	P
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	7
Start Date:	1996-04-25 04:00:00
Finish Date:	1999-09-30 04:00:00
Qual:	S
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	8
Start Date:	1996-04-18 04:00:00
Finish Date:	1997-12-19 05:00:00
Qual:	P
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	9
Start Date:	1997-06-30 04:00:00
Finish Date:	1998-12-08 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	11
Start Date:	1997-06-25 04:00:00
Finish Date:	1998-12-08 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	12
Start Date:	1996-04-15 04:00:00
Finish Date:	1997-07-22 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	3
Start Date:	1998-10-01 04:00:00
Finish Date:	2003-06-10 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	RO
Action Name:	ROD
SEQ:	2
Start Date:	2005-09-29 04:00:00
Finish Date:	2005-09-29 04:00:00
Qual:	R
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	OM
Action Name:	OM
SEQ:	2
Start Date:	1999-11-28 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	01
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	1
Start Date:	1989-06-29 04:00:00
Finish Date:	1993-11-24 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	EE
Action Name:	EE/CA
SEQ:	1
Start Date:	1996-03-29 05:00:00
Finish Date:	1996-03-29 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	01
Action Code:	RO
Action Name:	ROD
SEQ:	1
Start Date:	1993-11-24 05:00:00
Finish Date:	1993-11-24 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	01
Action Code:	LY
Action Name:	FF RA
SEQ:	1
Start Date:	1994-09-16 04:00:00
Finish Date:	1996-07-26 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	2
Start Date:	1995-12-21 05:00:00
Finish Date:	1999-07-28 04:00:00

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	01
Action Code:	OM
Action Name:	OM
SEQ:	1
Start Date:	1996-07-26 04:00:00
Finish Date:	2005-12-21 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	13
Start Date:	2004-02-02 05:00:00
Finish Date:	2005-09-29 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV
SEQ:	14
Start Date:	2003-11-24 05:00:00
Finish Date:	2005-09-29 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902760
EPA ID:	CA4570024345
Site Name:	NORTON AIR FORCE BASE (LNDFLL #2)
NPL:	F
FF:	Y
OU:	02
Action Code:	LV
Action Name:	FF RV

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

SEQ: 15
Start Date: 2003-12-17 05:00:00
Finish Date: 2005-09-29 04:00:00
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 02
Action Code: LV
Action Name: FF RV
SEQ: 16
Start Date: 2003-12-11 05:00:00
Finish Date: 2004-12-03 05:00:00
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 00
Action Code: LV
Action Name: FF RV
SEQ: 1
Start Date: 1991-01-04 05:00:00
Finish Date: 1992-04-08 04:00:00
Qual: C
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 02
Action Code: RO
Action Name: ROD
SEQ: 3
Start Date: 1997-06-25 04:00:00
Finish Date: 1997-06-25 04:00:00
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

OU: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Date: 1984-04-01 06:00:00
Finish Date: 1984-04-01 06:00:00
Qual: L
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 00
Action Code: NF
Action Name: NPL FINL
SEQ: 1
Start Date: 1987-07-22 04:00:00
Finish Date: 1987-07-22 04:00:00
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 02
Action Code: LV
Action Name: FF RV
SEQ: 17
Start Date: 1996-09-20 04:00:00
Finish Date: 1996-11-15 05:00:00
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902760
EPA ID: CA4570024345
Site Name: NORTON AIR FORCE BASE (LNDFLL #2)
NPL: F
FF: Y
OU: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Date: 1980-08-01 04:00:00
Finish Date: 1980-08-01 04:00:00
Qual: Not reported
Current Action Lead: Fed Fac

CORRACTS:
Name: USAF NORTON AFB

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: CENTRAL BASE AREA OU
Corrective Action: INVESTIGATION WORKPLAN APPROVED
Actual Date: 19930205
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: CENTRAL BASE AREA OU
Corrective Action: INVESTIGATION COMPLETE
Actual Date: 19930205
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: CENTRAL BASE AREA OU
Corrective Action: CMS WORKPLAN APPROVED
Actual Date: 19930205
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: CENTRAL BASE AREA OU
Corrective Action: CMS COMPLETE
Actual Date: 19930205
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: CENTRAL BASE AREA OU
Corrective Action: CMI WORKPLAN APPROVED
Actual Date: 19941007
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: CENTRAL BASE AREA OU
Corrective Action: STABILIZATION/INTERIM MEASURES DECISION-GROUNDWATER EXTRACTION and TREATMENT
Actual Date: 19890713
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: ENTIRE FACILITY
Corrective Action: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Actual Date: 20000522
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: ENTIRE FACILITY
Corrective Action: RELEASE TO GW CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION
Actual Date: 20000522
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: ENTIRE FACILITY
Corrective Action: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Actual Date: 19980618
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Area Name: ENTIRE FACILITY
Corrective Action: REMEDY DECISION
Actual Date: 19931124
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: USAF NORTON AFB
Address: 305 S TIPPECANOE AVE
Address 2: Not reported
EPA ID: CA4570024345
Area Name: ENTIRE FACILITY
Corrective Action: REMEDY CONSTRUCTION-REMEDY CONSTRUCTED
Actual Date: 19950601
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Click this hyperlink while viewing on your computer to access
1 additional CORRACTS: record(s) in the EDR Site Report.

RCRA-SQG:
Date Form Received by Agency: 19960901
Handler Name: USAF NORTON AFB
Handler Address: 305 S TIPPECANOE AVE
Handler City,State,Zip: SAN BERNARDINO, CA 92408
EPA ID: CA4570024345
Contact Name: Not reported
Contact Address: Not reported
Contact City,State,Zip: Not reported
Contact Telephone: Not reported
Contact Fax: Not reported
Contact Email: Not reported
Contact Title: Not reported
EPA Region: 09
Land Type: Federal
Federal Waste Generator Description: Small Quantity Generator
Non-Notifier: Not reported
Biennial Report Cycle: Not reported
Accessibility: Not reported
Active Site Indicator: Handler Activities, Corrective Action Activities
State District Owner: CA
State District: 4
Mailing Address: 63RD CIV ENG SQU/DEEV
Mailing City,State,Zip: NORTON AFB, CA 92409
Owner Name: Not reported
Owner Type: Not reported
Operator Name: MULTIPLE OPS - USAF & DPDO
Operator Type: Federal
Short-Term Generator Activity: No
Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: Yes
Transfer Facility Activity: No
Recycler Activity with Storage: No

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

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:	The land is federally-owned, The site is federally-operated
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Storage, Treatment
2018 GPRA Permit Baseline:	Not Accomplished
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Storage, Treatment
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	Yes
Subject to Corrective Action Universe:	Yes
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:	Yes
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	Yes
Groundwater Controls Indicator:	No
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:	20060905
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
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	MULTIPLE OPS - USAF & DPDO
Legal Status:	Federal
Date Became Current:	Not reported
Date Ended Current:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Owner/Operator Address: US DEPT OF AIR FORCE NORTON
Owner/Operator City,State,Zip: CITY NOT REPORTED, CA 99999
Owner/Operator Telephone: 714-382-3909
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: MULTIPLE OPS - USAF & DPDO
Legal Status: Federal
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: US DEPT OF AIR FORCE NORTON
Owner/Operator City,State,Zip: CITY NOT REPORTED, CA 99999
Owner/Operator Telephone: 714-382-3909
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: US AIR FORCE
Legal Status: Federal
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: NORTON AFB
Owner/Operator City,State,Zip: SAN BERNARDINO, CA 92409
Owner/Operator Telephone: 714-382-3909
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 19960901
Handler Name: USAF NORTON AFB
Federal Waste Generator Description: Large 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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19960901
Handler Name: USAF NORTON AFB
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

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Receive Date:	19800818
Handler Name: USAF NORTON AFB	
Federal Waste Generator Description:	Large 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:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	19900417
Handler Name: NORTON AIR FORCE BASE	
Federal Waste Generator Description:	Large Quantity Generator
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:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	19920228
Handler Name: NORTON AIR FORCE BASE	
Federal Waste Generator Description:	Large Quantity Generator
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:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	19940328
Handler Name: USAF NORTON AFB	
Federal Waste Generator Description:	Large Quantity Generator
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:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	19960311
Handler Name: NORTON AIR FORCE BASE	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	2349
NAICS Description:	OTHER HEAVY CONSTRUCTION
NAICS Code:	23552
NAICS Description:	FLOOR LAYING AND OTHER FLOOR CONTRACTORS
NAICS Code:	332813
NAICS Description:	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING
NAICS Code:	336411
NAICS Description:	AIRCRAFT MANUFACTURING
NAICS Code:	48811
NAICS Description:	AIRPORT OPERATIONS
NAICS Code:	56121
NAICS Description:	FACILITIES SUPPORT SERVICES
NAICS Code:	811111
NAICS Description:	GENERAL AUTOMOTIVE REPAIR
NAICS Code:	81292
NAICS Description:	PHOTOFINISHING
NAICS Code:	92411
NAICS Description:	ADMINISTRATION OF AIR AND WATER RESOURCE AND SOLID WASTE MANAGEMENT PROGRAMS
NAICS Code:	92811
NAICS Description:	NATIONAL SECURITY

Facility Has Received Notices of Violation:

Found Violation:	Yes
Agency Which Determined Violation:	EPA
Violation Short Description:	TSD - General
Date Violation was Determined:	19880726
Actual Return to Compliance Date:	19891030
Return to Compliance Qualifier:	Unverifiable
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	19920515
Actual Return to Compliance Date:	19920619
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19920515
Actual Return to Compliance Date: 19920619
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	19930422
Actual Return to Compliance Date:	19940128
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19930513
Enforcement Identifier:	006
Date of Enforcement Action:	19930422
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19920515
Actual Return to Compliance Date:	19920619
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19870623
Actual Return to Compliance Date:	19870806
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	EPA
Violation Short Description:	TSD - General
Date Violation was Determined:	19870820
Actual Return to Compliance Date:	19880726
Return to Compliance Qualifier:	Unverifiable
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19920515
Actual Return to Compliance Date:	19920619
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD IS-Ground-Water Monitoring
Date Violation was Determined:	20030422
Actual Return to Compliance Date:	20050727
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	200
Date of Enforcement Action:	20050316
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19870623
Actual Return to Compliance Date:	19870806
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	002
Date of Enforcement Action:	19870806
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD - Closure/Post-Closure
Date Violation was Determined: 19870820
Actual Return to Compliance Date: 19880726
Return to Compliance Qualifier: Unverifiable
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19930422
Actual Return to Compliance Date: 19940128
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19930513
Enforcement Identifier: 006
Date of Enforcement Action: 19930422
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19891030
Actual Return to Compliance Date: 19900314
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19900314
Enforcement Identifier: 004
Date of Enforcement Action: 19891211
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19910227
Actual Return to Compliance Date: 19910516
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19910712
Enforcement Identifier: 005
Date of Enforcement Action: 19910412
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	19930422
Actual Return to Compliance Date:	19940128
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19930513
Enforcement Identifier:	006
Date of Enforcement Action:	19930422
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19930422
Actual Return to Compliance Date:	19940128
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19930513
Enforcement Identifier:	006
Date of Enforcement Action:	19930422
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD IS-Ground-Water Monitoring
Date Violation was Determined:	20030422
Actual Return to Compliance Date:	20050727
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	500
Date of Enforcement Action:	20050317
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD IS-Ground-Water Monitoring
Date Violation was Determined: 19870820
Actual Return to Compliance Date: 19880726
Return to Compliance Qualifier: Unverifiable
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 19880726
Evaluation Responsible Agency: EPA
Found Violation: Yes
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: R9EPA
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: 19891030
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 19920330
Evaluation Responsible Agency: State
Found Violation: Yes
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: KMORI
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: 19920619
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 20150429
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: Not reported
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 19870623
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: R9STA
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Evaluation Date:	19920330
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	KMORI
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19920619
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19930308
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19940128
Scheduled Compliance Date:	19930513
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19920330
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	KMORI
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19920619
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19870623
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19870806
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19870820
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19880726
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19920330
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	KMORI
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19920619
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19870730
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20080619
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20030422
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	GROUNDWATER MONITORING EVALUATION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20050727
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20050622
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20060425
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19940126
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19870623
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19870806
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20170413
Evaluation Responsible Agency:	State

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19870730
Evaluation Responsible Agency:	EPA
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19870820
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19880726
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19930308
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19940128
Scheduled Compliance Date:	19930513
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19891030
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19900314

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Scheduled Compliance Date:	19900314
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19910227
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19910516
Scheduled Compliance Date:	19910712
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19930308
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19940128
Scheduled Compliance Date:	19930513
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19930308
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19940128
Scheduled Compliance Date:	19930513
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20070411
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Evaluation Date:	20160419
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20030422
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	GROUNDWATER MONITORING EVALUATION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20050727
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19870820
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19880726
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

RCRA-SQG:

Date Form Received by Agency:		19960901
Handler Name:	USAF NORTON AFB	
Handler Address:		305 S TIPPECANOE AVE
Handler City,State,Zip:		SAN BERNARDINO, CA 92408
EPA ID:		CA4570024345
Contact Name:		Not reported
Contact Address:		Not reported
Contact City,State,Zip:		Not reported
Contact Telephone:		Not reported
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09
Land Type:		Federal
Federal Waste Generator Description:		Small Quantity Generator
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities, Corrective Action Activities
State District Owner:		CA
State District:		4
Mailing Address:		63RD CIV ENG SQU/DEEV
Mailing City,State,Zip:		NORTON AFB, CA 92409
Owner Name:	Not reported	
Owner Type:		Not reported
Operator Name:	MULTIPLE OPS - USAF & DPDO	
Operator Type:		Federal
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		Yes
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:		The land is federally-owned, The site is federally-operated
Hazardous Secondary Material Indicator:		NN
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Storage, Treatment
2018 GPRA Permit Baseline:		Not Accomplished
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported
Permit Workload Universe:		Not reported
Permit Progress Universe:		Storage, Treatment
Post-Closure Workload Universe:		Not reported
Closure Workload Universe:		Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	Yes
Subject to Corrective Action Universe:	Yes
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:	Yes
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	Yes
Groundwater Controls Indicator:	No
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:	20060905
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
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name: MULTIPLE OPS - USAF & DPDO	
Legal Status:	Federal
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	US DEPT OF AIR FORCE NORTON
Owner/Operator City,State,Zip:	CITY NOT REPORTED, CA 99999
Owner/Operator Telephone:	714-382-3909
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: MULTIPLE OPS - USAF & DPDO	
Legal Status:	Federal
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	US DEPT OF AIR FORCE NORTON
Owner/Operator City,State,Zip:	CITY NOT REPORTED, CA 99999
Owner/Operator Telephone:	714-382-3909
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: US AIR FORCE	
Legal Status:	Federal
Date Became Current:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Date Ended Current:	Not reported
Owner/Operator Address:	NORTON AFB
Owner/Operator City,State,Zip:	SAN BERNARDINO, CA 92409
Owner/Operator Telephone:	714-382-3909
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	19960901
Handler Name: USAF NORTON AFB	
Federal Waste Generator Description:	Large 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:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	19960901
Handler Name: USAF NORTON AFB	
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

Receive Date:	19800818
Handler Name: USAF NORTON AFB	
Federal Waste Generator Description:	Large 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:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	19900417
Handler Name: NORTON AIR FORCE BASE	
Federal Waste Generator Description:	Large Quantity Generator
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

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19920228
Handler Name: NORTON AIR FORCE BASE
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19940328
Handler Name: USAF NORTON AFB
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19960311
Handler Name: NORTON AIR FORCE BASE
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 2349
NAICS Description: OTHER HEAVY CONSTRUCTION

NAICS Code: 23552
NAICS Description: FLOOR LAYING AND OTHER FLOOR CONTRACTORS

NAICS Code: 332813
NAICS Description: ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

NAICS Code: 336411
NAICS Description: AIRCRAFT MANUFACTURING

NAICS Code: 48811

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

NAICS Description: AIRPORT OPERATIONS

NAICS Code: 56121
NAICS Description: FACILITIES SUPPORT SERVICES

NAICS Code: 811111
NAICS Description: GENERAL AUTOMOTIVE REPAIR

NAICS Code: 81292
NAICS Description: PHOTOFINISHING

NAICS Code: 92411
NAICS Description: ADMINISTRATION OF AIR AND WATER RESOURCE AND SOLID WASTE MANAGEMENT PROGRAMS

NAICS Code: 92811
NAICS Description: NATIONAL SECURITY

Facility Has Received Notices of Violation:

Found Violation:	Yes
Agency Which Determined Violation:	EPA
Violation Short Description:	TSD - General
Date Violation was Determined:	19880726
Actual Return to Compliance Date:	19891030
Return to Compliance Qualifier:	Unverifiable
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	19920515
Actual Return to Compliance Date:	19920619
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19920515
Actual Return to Compliance Date:	19920619
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	19930422
Actual Return to Compliance Date:	19940128
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19930513
Enforcement Identifier:	006
Date of Enforcement Action:	19930422
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19920515
Actual Return to Compliance Date: 19920619
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19870623
Actual Return to Compliance Date:	19870806
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	EPA
Violation Short Description:	TSD - General
Date Violation was Determined:	19870820
Actual Return to Compliance Date:	19880726
Return to Compliance Qualifier:	Unverifiable
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19920515
Actual Return to Compliance Date: 19920619
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD IS-Ground-Water Monitoring
Date Violation was Determined: 20030422
Actual Return to Compliance Date: 20050727
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20050316
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19870623
Actual Return to Compliance Date:	19870806
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	002
Date of Enforcement Action:	19870806
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	Yes
Agency Which Determined Violation:	EPA
Violation Short Description:	TSD - Closure/Post-Closure
Date Violation was Determined:	19870820
Actual Return to Compliance Date:	19880726
Return to Compliance Qualifier:	Unverifiable
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19930422
Actual Return to Compliance Date:	19940128
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19930513
Enforcement Identifier:	006
Date of Enforcement Action:	19930422
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19891030
Actual Return to Compliance Date: 19900314
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19900314
Enforcement Identifier: 004
Date of Enforcement Action: 19891211
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19910227
Actual Return to Compliance Date:	19910516
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19910712
Enforcement Identifier:	005
Date of Enforcement Action:	19910412
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	19930422
Actual Return to Compliance Date:	19940128
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19930513
Enforcement Identifier:	006
Date of Enforcement Action:	19930422
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19930422
Actual Return to Compliance Date: 19940128
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19930513
Enforcement Identifier: 006
Date of Enforcement Action: 19930422
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD IS-Ground-Water Monitoring
Date Violation was Determined: 20030422
Actual Return to Compliance Date: 20050727
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 500
Date of Enforcement Action: 20050317
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	Yes
Agency Which Determined Violation:	EPA
Violation Short Description:	TSD IS-Ground-Water Monitoring
Date Violation was Determined:	19870820
Actual Return to Compliance Date:	19880726
Return to Compliance Qualifier:	Unverifiable
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Evaluation Action Summary:

Evaluation Date:	19880726
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19891030
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19920330
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	KMORI

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: 19920619
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 20150429
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: Not reported
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 19870623
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: R9STA
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 19920330
Evaluation Responsible Agency: State
Found Violation: Yes
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: KMORI
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: 19920619
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 19930308
Evaluation Responsible Agency: State
Found Violation: Yes
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: R9STA
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: 19940128
Scheduled Compliance Date: 19930513
Date of Request: Not reported
Date Response Received: Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19920330
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	KMORI
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19920619
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19870623
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19870806
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19870820
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19880726
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19920330
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	KMORI
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19920619
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19870730
Evaluation Responsible Agency:	State

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20080619
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20030422
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	GROUNDWATER MONITORING EVALUATION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20050727
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20050622
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20060425
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19940126
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19870623
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19870806
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20170413
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19870730
Evaluation Responsible Agency:	EPA
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Evaluation Date:	19870820
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19880726
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19930308
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19940128
Scheduled Compliance Date:	19930513
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19891030
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19900314
Scheduled Compliance Date:	19900314
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19910227
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19910516
Scheduled Compliance Date:	19910712
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19930308
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19940128
Scheduled Compliance Date:	19930513
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19930308
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19940128
Scheduled Compliance Date:	19930513
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20070411
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20160419
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20030422
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	GROUNDWATER MONITORING EVALUATION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20050727
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19870820
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19880726
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

SIte:

Name:	NORTON AIR FORCE BASE (LNDFLL #2)
Address:	I-10/US 395 FORMER NORTON AFB
Address 2:	Not reported
City,State,Zip:	SAN BERNARDINO, CA 92408
Event Code:	Not reported
Action Taken Date:	09/29/2005
EPA ID:	CA4570024345
Action Name:	Record of Decision
Action ID:	2
Operable Unit:	02
Contaminated Media:	Soil
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

Media:

EPA ID:	CA4570024345
Contaminated Media:	Air
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Debris
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

EPA ID: CA4570024345
Contaminated Media: Groundwater
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 11/24/1993
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1994
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 34.098061
Longitude: -117.237200

EPA ID: CA4570024345
Contaminated Media: Soil
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 11/24/1993
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1994
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 34.098061
Longitude: -117.237200

EPA ID: CA4570024345
Contaminated Media: Groundwater
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 11/24/1993
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1994
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 34.098061
Longitude: -117.237200

EPA ID: CA4570024345
Contaminated Media: Groundwater
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 11/24/1993

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	11/24/1993
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	2
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	2
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200
EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	2
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200
EPA ID:	CA4570024345
Contaminated Media:	Groundwater
Action ID:	3
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	06/25/1997
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1997
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200
EPA ID:	CA4570024345
Contaminated Media:	Soil
Action ID:	3
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	06/25/1997
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1997
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

US INST CONTROLS:

Name:	NORTON AIR FORCE BASE (LNDFLL #2)
Address:	I-10/US 395 FORMER NORTON AFB
Address 2:	Not reported
City,State,Zip:	SAN BERNARDINO, CA 92408
EPA ID:	CA4570024345
Action Name:	Record of Decision
Action ID:	1
Operable Unit:	01
Actual Date:	11/24/1993
Contaminated Media:	Groundwater
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

Name:	NORTON AIR FORCE BASE (LNDFLL #2)
Address:	I-10/US 395 FORMER NORTON AFB
Address 2:	Not reported
City,State,Zip:	SAN BERNARDINO, CA 92408
EPA ID:	CA4570024345
Action Name:	Record of Decision
Action ID:	1
Operable Unit:	01
Actual Date:	11/24/1993
Contaminated Media:	Soil
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1994
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	34.098061
Longitude:	-117.237200

Name:	NORTON AIR FORCE BASE (LNDFLL #2)
Address:	I-10/US 395 FORMER NORTON AFB
Address 2:	Not reported
City,State,Zip:	SAN BERNARDINO, CA 92408
EPA ID:	CA4570024345
Action Name:	Record of Decision
Action ID:	2
Operable Unit:	02
Actual Date:	09/29/2005
Contaminated Media:	Soil
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

Federal Facility: Y
Fiscal Year: 2005
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 34.098061
Longitude: -117.237200

Name: NORTON AIR FORCE BASE (LNDFLL #2)
Address: I-10/US 395 FORMER NORTON AFB
Address 2: Not reported
City,State,Zip: SAN BERNARDINO, CA 92408
EPA ID: CA4570024345
Action Name: Record of Decision
Action ID: 3
Operable Unit: 02
Actual Date: 06/25/1997
Contaminated Media: Soil
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1997
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 34.098061
Longitude: -117.237200

ROD:
Name: NORTON AIR FORCE BASE (LNDFLL #2)
Address: I-10/US 395 FORMER NORTON AFB
City,State,Zip: SAN BERNARDINO, CA 92408
EPA ID: CA4570024345
RG: 9
Site ID: 902760
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: CENTRAL BASE AREA
SEQ ID: 1
Action Completion: 1993-11-24 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: NORTON AIR FORCE BASE (LNDFLL #2)
Address: I-10/US 395 FORMER NORTON AFB
City,State,Zip: SAN BERNARDINO, CA 92408
EPA ID: CA4570024345
RG: 9
Site ID: 902760
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: BASEWIDE
SEQ ID: 2
Action Completion: 2005-09-29 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: NORTON AIR FORCE BASE (LNDFLL #2)
Address: I-10/US 395 FORMER NORTON AFB

NORTON AIR FORCE BASE (LNDFLL #2) (Continued) **1000417274**

City,State,Zip:	SAN BERNARDINO, CA 92408
EPA ID:	CA4570024345
RG:	9
Site ID:	902760
Action:	GOVT Decision Document (ROD)
Operable Unit Number:	BASEWIDE
SEQ ID:	3
Action Completion:	1997-06-25 00:00:00
NPL Status:	Final
Non NPL Status:	Not reported

---

1 **JOSE HUIZAR** **RCRA NonGen / NLR** **1025854832**
SE **26875 4TH PL** **CAC003035088**
< 1/8 **HIGHLAND, CA 92346**
0.026 mi.
137 ft.

Relative: **Higher**
Actual: **1165 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		20190922
Handler Name:	JOSE HUIZAR	
Handler Address:		26875 4TH PL
Handler City,State,Zip:		HIGHLAND, CA 92346-4105
EPA ID:		CAC003035088
Contact Name:		JOSE HUIZAR
Contact Address:		26875 4TH PL
Contact City,State,Zip:		HIGHLAND, CA 92346-4105
Contact Telephone:		951-634-5029
Contact Fax:		Not reported
Contact Email:		FAVILA@BURNS-ENVIRO.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:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		26875 4TH PL
Mailing City,State,Zip:		HIGHLAND, CA 92346-4105
Owner Name:	JOSE HUIZAR	
Owner Type:		Other
Operator Name:	JOSE HUIZAR	
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:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No

JOSE HUIZAR (Continued) **1025854832**

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
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:	20190927
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: JOSE HUIZAR	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26875 4TH PL
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346-4105
Owner/Operator Telephone:	951-634-5029
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

JOSE HUIZAR (Continued) **1025854832**

Owner/Operator Indicator: Operator
Owner/Operator Name: JOSE HUIZAR
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 26875 4TH PL
Owner/Operator City,State,Zip: HIGHLAND, CA 92346-4105
Owner/Operator Telephone: 951-634-5029
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20190922
Handler Name: JOSE HUIZAR
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: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

A2 **DEYANIRA REQUENES** **RCRA NonGen / NLR** **1025839214**
NNE **26880 MOSSWAY ST** **CAC003018813**
< 1/8 **HIGHLAND, CA 92346**
0.069 mi.
362 ft. **Site 1 of 4 in cluster A**

Relative:
Higher

Actual:
1165 ft.

RCRA NonGen / NLR:
Date Form Received by Agency: 20190607
Handler Name: DEYANIRA REQUENES
Handler Address: 26880 MOSSWAY ST
Handler City,State,Zip: HIGHLAND, CA 92346
EPA ID: CAC003018813
Contact Name: DEYANIRA REQUENES
Contact Address: 26880 MOSSWAY ST
Contact City,State,Zip: HIGHLAND, CA 92346
Contact Telephone: 949-290-2505
Contact Fax: Not reported
Contact Email: ANAB@PWSEI.COM
Contact Title: Not reported

DEYANIRA REQUENES (Continued) **1025839214**

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:		26880 MOSSWAY ST
Mailing City,State,Zip:		HIGHLAND, CA 92346
Owner Name:	DEYANIRA REQUENES	
Owner Type:		Other
Operator Name:	DEYANIRA REQUENES	
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
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

DEYANIRA REQUENES (Continued) **1025839214**

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:	20190627
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: DEYANIRA REQUENES	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26880 MOSSWAY ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	949-290-2505
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: DEYANIRA REQUENES	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26880 MOSSWAY ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	949-290-2505
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20190607
Handler Name: DEYANIRA REQUENES	
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:	56299

DEYANIRA REQUENES (Continued) **1025839214**

NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

A3 **DEYANIRA REQUENES** **RCRA NonGen / NLR** **1025848027**
NNE **26880 MOSSWAY ST** **CAC003028051**
< 1/8 **HIGHLAND, CA 92346**
0.069 mi.
362 ft. **Site 2 of 4 in cluster A**

Relative:
Higher

Actual:
1165 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:		20190806
Handler Name:	DEYANIRA REQUENES	
Handler Address:		26880 MOSSWAY ST
Handler City,State,Zip:		HIGHLAND, CA 92346-4143
EPA ID:		CAC003028051
Contact Name:		DEYANIRA REQUENES
Contact Address:		26880 MOSSWAY ST
Contact City,State,Zip:		HIGHLAND, CA 92346-4143
Contact Telephone:		949-290-2505
Contact Fax:		Not reported
Contact Email:		ADMIN@VIKINGENVIRO.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:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		26880 MOSSWAY ST
Mailing City,State,Zip:		HIGHLAND, CA 92346-4143
Owner Name:	DEYANIRA REQUENES	
Owner Type:		Other
Operator Name:	DEYANIRA REQUENES	
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:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported

DEYANIRA REQUENES (Continued) **1025848027**

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
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:	20190910
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:	Operator
Owner/Operator Name: DEYANIRA REQUENES	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26880 MOSSWAY ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346-4143
Owner/Operator Telephone:	949-290-2505
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner

DEYANIRA REQUENES (Continued) **1025848027**

Owner/Operator Name: DEYANIRA REQUENES
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 26880 MOSSWAY ST
Owner/Operator City,State,Zip: HIGHLAND, CA 92346-4143
Owner/Operator Telephone: 949-290-2505
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20190806
Handler Name: DEYANIRA REQUENES
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: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

B4 **S&S MOTORS INC (DBA) S&S INLAND STAR** **RCRA NonGen / NLR** **1026490007**
East **26967 5TH ST** **CAL000405511**
< 1/8 **HIGHLAND, CA 92346**
0.076 mi.
401 ft. **Site 1 of 3 in cluster B**

Relative: RCRA NonGen / NLR:
Higher
Date Form Received by Agency: 20150323
Actual: Handler Name: S&S MOTORS INC (DBA) S&S INLAND STAR
1168 ft. Handler Address: 26967 5TH ST
Handler City,State,Zip: HIGHLAND, CA 92346-4207
EPA ID: CAL000405511
Contact Name: SCOTT POWELL
Contact Address: 26967 5TH ST
Contact City,State,Zip: HIGHLAND, CA 92346
Contact Telephone: 909-864-4702
Contact Fax: 844-273-6356
Contact Email: SERVICETEAM@SANDSINLANDSTAR.COM
Contact Title: Not reported
EPA Region: 09

S&S MOTORS INC (DBA) S&S INLAND STAR (Continued) **1026490007**

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:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		26967 5TH ST
Mailing City,State,Zip:		HIGHLAND, CA 92346-4207
Owner Name:	SAM SWARTZ	
Owner Type:		Other
Operator Name:	SCOTT POWELL	
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:		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:		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
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

S&S MOTORS INC (DBA) S&S INLAND STAR (Continued) **1026490007**

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:	20200814
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:	Operator
Owner/Operator Name: SCOTT POWELL	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26967 5TH ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	909-864-4702
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: SAM SWARTZ	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26967 5TH ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346-4207
Owner/Operator Telephone:	909-864-4701
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20150323
Handler Name:	S&S MOTORS INC (DBA) S&S INLAND STAR
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	Not reported
Recognized Trader Exporter:	Not reported
Spent Lead Acid Battery Importer:	Not reported
Spent Lead Acid Battery Exporter:	Not reported
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

S&S MOTORS INC (DBA) S&S INLAND STAR (Continued) **1026490007**

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

B5 **S&S INLANDSTAR** **CA CERS HAZ WASTE** **S107592134**
East **26967 5TH ST** **CA San Bern. Co. Permit** **N/A**
< 1/8 **HIGHLAND, CA 92346** **CA CERS**
0.076 mi. **CA HWTS**
401 ft. **Site 2 of 3 in cluster B**

Relative:
Higher

Actual:
1168 ft.

CERS HAZ WASTE:
Name: S&S INLANDSTAR
Address: 26967 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Site ID: 150771
CERS ID: 10050988
CERS Description: Hazardous Waste Generator

San Bern. Co. Permit:
Name: S&S INLANDSTAR
Address: 26967 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0015635
Owner: SAM SWARTZ-
Permit Number: PT0034311
Permit Category: SMALL QUANTITY GENERATOR
Facility Status: ACTIVE
Expiration Date: 11/30/2022

Name: S&S INLANDSTAR
Address: 26967 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0015635
Owner: SAM SWARTZ-
Permit Number: PT0034312
Permit Category: HAZARDOUS MATERIALS 1-3 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 11/30/2022

Name: SANCHEZ AUTOMOTIVE SERVICE
Address: 26967 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0010276
Owner: SANCHEZ, DANIEL & LORENA
Permit Number: PT0032316
Permit Category: HAZARDOUS MATERIALS 1-3 CHEMICALS
Facility Status: INACTIVE
Expiration Date: 03/31/2015

Name: SANCHEZ AUTOMOTIVE SERVICE

S&S INLANDSTAR (Continued) **S107592134**

Address: 26967 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0010276
Owner: SANCHEZ, DANIEL & LORENA
Permit Number: PT0017462
Permit Category: CONDITIONALLY EXEMPT SM QTY GENERATOR
Facility Status: INACTIVE
Expiration Date: 03/31/2009

Name: MARTIN'S AUTOMOTIVE
Address: 26967 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0004600
Owner: MARTIN, GERALD T.
Permit Number: PT0004422
Permit Category: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR
Facility Status: INACTIVE
Expiration Date: 08/31/2006

CERS:
Name: S&S INLANDSTAR
Address: 26967 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Site ID: 150771
CERS ID: 10050988
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 150771
Site Name: S&S INLANDSTAR
Violation Date: 07-02-2020
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes: Returned to compliance on 08/10/2020. FACILITY DISCLOSED EMAIL ADDRESS AS THE PHYSICAL ADDRESS IN THE OWNERSHIP INFORMATION SECTION. CORRECTIVE ACTION: COMPLY BY SUBMITTING THE BUSINESS OWNER/OPERATOR IDENTIFICATION PAGE AS REQUIRED.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 150771
Site Name: S&S INLANDSTAR
Violation Date: 12-01-2014
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 07/11/2017.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

S&S INLANDSTAR (Continued) **S107592134**

Site ID:	150771
Site Name:	S&S INLANDSTAR
Violation Date:	07-02-2020
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 07/02/2020. OBSERVED (1) 55 GALLON DRUM CONTAINING USED LUBRICATING OIL TO NOT HAVE HAZARDOUS WASTE LABELING. CORRECTED ON SITE.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,

Site ID:	150771
Site Name:	S&S INLANDSTAR
Violation Date:	07-02-2020
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes:	Returned to compliance on 07/02/2020. EPA ID NUMBER CAL000405511 WAS INACTIVE. CORRECTED ON SITE.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,

Site ID:	150771
Site Name:	S&S INLANDSTAR
Violation Date:	07-10-2017
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 a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 08/30/2017. Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS,

Site ID:	150771
Site Name:	S&S INLANDSTAR
Violation Date:	12-01-2014
Citation:	HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Description:	Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 07/11/2017.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP

S&S INLANDSTAR (Continued) **S107592134**

Violation Source:	CERS,
Site ID:	150771
Site Name:	S&S INLANDSTAR
Violation Date:	07-10-2017
Citation:	HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description:	Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 08/30/2017. Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	150771
Site Name:	S&S INLANDSTAR
Violation Date:	07-02-2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 08/10/2020. OBSERVED (1) 55 GALLON DRUM OF USED LUBRICATING OIL, AND (1) 30 GALLON PARTS WASHER, WHICH WERE NOT DISCLOSED IN THE CERS INVENTORY. CORRECTIVE ACTION: COMPLY BY SUBMITTING AND ACCURATE AND COMPLETE HAZARDOUS MATERIALS INVENTORY VIA CERS.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	150771
Site Name:	S&S INLANDSTAR
Violation Date:	07-10-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 08/30/2017. Failure to establish a Contingency Plan (CCR 66265.51(a)) Failure to establish a Contingency Plan.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	150771
Site Name:	S&S INLANDSTAR
Violation Date:	07-02-2020
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 08/10/2020. LAST HMBP SUBMITTED VIA CERS OCCURRED ON 07/11/2017. CORRECTIVE ACTION: COMPLY BY REVIEWING AND

S&S INLANDSTAR (Continued) **S107592134**

CERTIFYING THE BUSINESS PLAN ANNUALLY.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 150771
Site Name: S&S INLANDSTAR
Violation Date: 12-01-2014
Citation: HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description: Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 07/11/2017. Failure to establish a Contingency Plan (CCR 66265.51(a))
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Site ID: 150771
Site Name: S&S INLANDSTAR
Violation Date: 07-10-2017
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 07/10/2017. Failure to keep hazardous waste containers closed when not in active use (CCR 66265.173(a)) Failure to keep Hazardous Waste containers closed when not in use.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Site ID: 150771
Site Name: S&S INLANDSTAR
Violation Date: 12-01-2014
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 07/10/2017. Failure to obtain an EPA ID Number (CCR 66262.12(a))
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Site ID: 150771
Site Name: S&S INLANDSTAR
Violation Date: 07-10-2017
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 07/10/2017. Failure to complete hazardous waste labels (CCR 66262.34(f)(3)) Failure to ensure that the following information is present and legible on a Hazardous Waste label: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste and starting accumulation date.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

S&S INLANDSTAR (Continued) **S107592134**

Site ID: 150771
Site Name: S&S INLANDSTAR
Violation Date: 07-10-2017
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 07/10/2017. Failure to obtain an EPA ID Number (CCR 66262.12(a)) Failure to obtain/maintain an active EPA ID Number. A facility or individual shall not treat, store, dispose of, transport, or offer for transportation a Hazardous Waste unless an EPA ID Number has been obtained.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-10-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE HANDLER INSPECTION OF S&S INLAND STAR.
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-01-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: S S INLAND INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-10-2017
Violations Found: Yes
Eval Type: Routine done by local agency

S&S INLANDSTAR (Continued) **S107592134**

Eval Notes: ROUTINE GENERATOR INSPECTION OF S&S INLAND STAR.
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-01-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: S S INLAND INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Enforcement Action:
Site ID: 150771
Site Name: S&S INLANDSTAR
Site Address: 26967 5TH ST
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 12-01-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HMRRP
Enf Action Source: CERS,

Site ID: 150771
Site Name: S&S INLANDSTAR
Site Address: 26967 5TH ST
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 12-01-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HW
Enf Action Source: CERS,

Coordinates:
Site ID: 150771
Facility Name: S&S INLANDSTAR
Env Int Type Code: HMBP
Program ID: 10050988
Coord Name: Not reported
Ref Point Type Desc: Unknown,
Latitude: 34.108009
Longitude: -117.216949

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: San Bernardino County Fire
Entity Title: Not reported
Affiliation Address: 620 South E Street

S&S INLANDSTAR (Continued) **S107592134**

Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92415-0153
Affiliation Phone:	(909) 386-8401,
Affiliation Type Desc:	Document Preparer
Entity Name:	SAM SWARTZ
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:	,
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	26967 5TH ST
Affiliation City:	HIGHLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92346
Affiliation Phone:	,
Affiliation Type Desc:	Parent Corporation
Entity Name:	S & S Inland Star
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:	,
Affiliation Type Desc:	Environmental Contact
Entity Name:	SAM SWARTZ
Entity Title:	Not reported
Affiliation Address:	26967 5TH ST
Affiliation City:	HIGHLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92346
Affiliation Phone:	,
Affiliation Type Desc:	Legal Owner
Entity Name:	SAM SWARTZ-
Entity Title:	Not reported
Affiliation Address:	26967 5th st
Affiliation City:	Highland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92346
Affiliation Phone:	(909) 864-4701,
Affiliation Type Desc:	Identification Signer

S&S INLANDSTAR (Continued) **S107592134**

Entity Name:	SAM SWARTZ
Entity Title:	OWNER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,
Affiliation Type Desc:	Operator
Entity Name:	S&S INLAND STAR
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:	(909) 864-4701,

HWTS:

Name:	SANCHEZ AUTOMOTIVE SERVICE
Address:	26967 5TH ST
Address 2:	Not reported
City,State,Zip:	HIGHLAND, CA 92346
EPA ID:	CAL000304636
Inactive Date:	06/30/2011
Create Date:	03/21/2006
Last Act Date:	Not reported
Mailing Name:	Not reported
Mailing Address:	26967 5TH ST
Mailing Address 2:	Not reported
Mailing City,State,Zip:	HIGHLAND, CA 923464207
Owner Name:	DANIEL & LORENA SANCHEZ
Owner Address:	12846 PENSKE ST
Owner Address 2:	Not reported
Owner City,State,Zip:	MORENO VALLEY, CA 925535212
Contact Name:	DANIEL SANCHEZ
Contact Address:	12846 PENSKE ST
Contact Address 2:	Not reported
City,State,Zip:	MORENO VALLEY, CA 925535212
Facility Status:	Inactive
Facility Type:	PERMANENT
Category:	STATE
Latitude:	34.10801
Longitude:	-117.21695

NAICS:

EPA ID:	CAL000304636
Create Date:	2006-03-21 13:04:52.177
NAICS Code:	811111
NAICS Description:	General Automotive Repair
Issued EPA ID Date:	2006-03-21 13:04:52.11300
Inactive Date:	2011-06-30 00:00:00
Facility Name:	SANCHEZ AUTOMOTIVE SERVICE
Facility Address:	26967 5TH ST
Facility Address 2:	Not reported

S&S INLANDSTAR (Continued) **S107592134**

Facility City:	HIGHLAND
Facility County:	Not reported
Facility State:	CA
Facility Zip:	923464207

C6 **WYLE LABS SBO EAST DEPT 551** **RCRA-SQG** **1009216575**
SE **3505 E 3RD ST** **CAR000169649**
< 1/8 **SAN BERNARDINO, CA 92408**
0.085 mi.
449 ft. **Site 1 of 4 in cluster C**

Relative: **Higher**

Actual: **1166 ft.**

RCRA-SQG:

Date Form Received by Agency:		20051214
Handler Name:	WYLE LABS SBO EAST DEPT 551	
Handler Address:		3505 E 3RD ST
Handler City,State,Zip:		SAN BERNARDINO, CA 92408
EPA ID:		CAR000169649
Contact Name:		JEFF GLENN
Contact Address:		244 S LELAND NORTON WAY
Contact City,State,Zip:		SAN BERNARDINO, CA 92408
Contact Telephone:		909-382-2323
Contact Fax:		Not reported
Contact Email:		JEFF.GLENN@WYLELABS.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Other
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:		Not reported
State District:		Not reported
Mailing Address:		244 S LELAND NORTON WAY
Mailing City,State,Zip:		SAN BERNARDINO, CA 92408
Owner Name:	SAN BERNARDINO INTL AIRPORT AUTHORITY	
Owner Type:		Other
Operator Name:	DOUG ANDERSON	
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

WYLE LABS SBO EAST DEPT 551 (Continued) **1009216575**

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-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:	20060201
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
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D002
Waste Description:	CORROSIVE WASTE
Waste Code:	D009
Waste Description:	MERCURY
Waste Code:	F003
Waste Description:	THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR

WYLE LABS SBO EAST DEPT 551 (Continued) **1009216575**

MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F005
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: U002
Waste Description: 2-PROPANONE (I) (OR) ACETONE (I)

Waste Code: U159
Waste Description: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Waste Code: U220
Waste Description: BENZENE, METHYL- (OR) TOLUENE

Waste Code: U239
Waste Description: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: SAN BERNARDINO INTL AIRPORT AUTHORITY
Legal Status: Other
Date Became Current: 20000913
Date Ended Current: Not reported
Owner/Operator Address: 294 S LELAND NORTON WAY
Owner/Operator City,State,Zip: SAN BERNARDINO, CA 92408
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: DOUG ANDERSON
Legal Status: Private
Date Became Current: 20041208
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20051214
Handler Name: WYLE LABS SBO EAST DEPT 551
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No

WYLE LABS SBO EAST DEPT 551 (Continued) **1009216575**

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: 54138
NAICS Description: TESTING LABORATORIES AND SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

C7 **WYLE LABS EAST TEST SITE DEPT #551** **CA San Bern. Co. Permit** **S108758180**
SE **3505 E 3RD ST** **N/A**
< 1/8 **SAN BERNARDINO, CA 92408**
0.085 mi.
449 ft. **Site 2 of 4 in cluster C**

Relative: Higher

Actual: 1166 ft.

San Bern. Co. Permit:
Name: WYLE LABS EAST TEST SITE DEPT #551
Address: 3505 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0010413
Owner: WYLE LABORATORIES, INC.
Permit Number: PT0021934
Permit Category: APSA 1,320-10,000 GAL FAC CAPACITY
Facility Status: INACTIVE
Expiration Date: 05/31/2016

Name: WYLE LABS EAST TEST SITE DEPT #551
Address: 3505 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0010413
Owner: WYLE LABORATORIES, INC.
Permit Number: PT0017718
Permit Category: HAZARDOUS MATERIALS 11-30 CHEMICALS
Facility Status: INACTIVE
Expiration Date: 05/31/2016

Name: WYLE LABS EAST TEST SITE DEPT #551
Address: 3505 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0010413
Owner: WYLE LABORATORIES, INC.
Permit Number: PT0017717
Permit Category: SMALL QUANTITY GENERATOR

WYLE LABS EAST TEST SITE DEPT #551 (Continued) **S108758180**

Facility Status: INACTIVE
Expiration Date: 05/31/2016

Name: WYLE LABS EAST TEST SITE DEPT #551
Address: 3505 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0010413
Owner: WYLE LABORATORIES, INC.
Permit Number: PT0025553
Permit Category: EPCRA FACILITY
Facility Status: INACTIVE
Expiration Date: 05/31/2014

C8 **NATIONAL TECHNICAL SYSTEMS SAN BERNARDINO OPERATIO** **RCRA NonGen / NLR** **1024845186**
SE **3505 E THIRD ST** **CAL000398078**
< 1/8 **SAN BERNARDINO, CA 92408**
0.085 mi.
449 ft. **Site 3 of 4 in cluster C**

Relative: RCRA NonGen / NLR:
Higher

Date Form Received by Agency:	20140624
Handler Name:	NATIONAL TECHNICAL SYSTEMS SAN BERNARDINO OPERATIONS
Handler Address:	3505 E THIRD ST
Handler City,State,Zip:	SAN BERNARDINO, CA 92408
EPA ID:	CAL000398078
Contact Name:	RICHARD JOHNSON
Contact Address:	3505 E. THIRD ST
Contact City,State,Zip:	SAN BERNARDINO, CA 92408
Contact Telephone:	909-289-6716
Contact Fax:	Not reported
Contact Email:	RICHARD.JOHNSON@NTS.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:	3505 E. THIRD ST.
Mailing City,State,Zip:	SAN BERNARDINO, CA 92408-0000
Owner Name:	NATIONAL TECHNICAL SYSTEMS
Owner Type:	Other
Operator Name:	RICHARD JOHNSON
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

Actual:
1166 ft.

NATIONAL TECHNICAL SYSTEMS SAN BERNARDINO OPERATIONS (Continued) **1024845186**

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
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:	20180906
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: NATIONAL TECHNICAL SYSTEMS	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	24007 VENTURA BLVD. STE. 200
Owner/Operator City,State,Zip:	CALABASAS, CA 91302-0000
Owner/Operator Telephone:	818-591-0776
Owner/Operator Telephone Ext:	Not reported

NATIONAL TECHNICAL SYSTEMS SAN BERNARDINO OPERATIONS (Continued) **1024845186**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: RICHARD JOHNSON
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 3505 E. THIRD ST
Owner/Operator City,State,Zip: SAN BERNARDINO, CA 92408
Owner/Operator Telephone: 909-289-6716
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20140624
Handler Name: NATIONAL TECHNICAL SYSTEMS SAN BERNARDINO OPERATIONS
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: 54194
NAICS Description: VETERINARY SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

C9 **NATIONAL TECHNICAL SYSTEMS** **CA AST** **S117896923**
SE **3505 E THIRD ST** **CA CERS HAZ WASTE** **N/A**
< 1/8 **SAN BERNARDINO, CA 92408** **CA CERS TANKS**
0.085 mi. **CA San Bern. Co. Permit**
449 ft. **Site 4 of 4 in cluster C** **CA CERS**

Relative: Higher

Actual: 1166 ft.

AST:
Name: NATIONAL TECHNICAL SYSTEMS
Address: 3505 E THIRD ST
City/Zip: SAN BERNARDINO,92408
Certified Unified Program Agencies: Not reported
Owner: National Technical Systems
Total Gallons: Not reported
CERSID: 10505722
Facility ID: FA0010413
Business Name: National Technical Systems

NATIONAL TECHNICAL SYSTEMS (Continued) **S117896923**

Phone:	(909)863-5150
Fax:	Not reported
Mailing Address:	3505 E. Third St.
Mailing Address City:	San Bernardino
Mailing Address State:	CA
Mailing Address Zip Code:	92408
Operator Name:	National Technical Systems
Operator Phone:	(909)863-5150
Owner Phone:	(818)591-0776
Owner Mail Address:	24007 Ventura Blvd. Ste. 200
Owner State:	CA
Owner Zip Code:	91302
Owner Country:	United States
Property Owner Name:	San Bernardino Int'l Airport
Property Owner Phone:	909-382-4100
Property Owner Mailing Address:	1601 E. Third St. Ste 100
Property Owner City:	San Bernardino
Property Owner Stat :	CA
Property Owner Zip Code:	92408
Property Owner Country:	United States
EPAID:	CAL000398078

CERS HAZ WASTE:

Name:	NATIONAL TECHNICAL SYSTEMS
Address:	3505 E THIRD ST
City,State,Zip:	SAN BERNARDINO, CA 92408
Site ID:	137418
CERS ID:	10505722
CERS Description:	Hazardous Waste Generator

CERS TANKS:

Name:	NATIONAL TECHNICAL SYSTEMS
Address:	3505 E THIRD ST
City,State,Zip:	SAN BERNARDINO, CA 92408
Site ID:	137418
CERS ID:	10505722
CERS Description:	Aboveground Petroleum Storage

San Bern. Co. Permit:

Name:	NATIONAL TECHNICAL SYSTEMS
Address:	3505 E THIRD ST
City,State,Zip:	SAN BERNARDINO, CA 92408
Region:	SAN BERNARDINO
Facility ID:	FA0016030
Owner:	National Technical Systems
Permit Number:	PT0034693
Permit Category:	APSA 1,320-10,000 GAL FAC CAPACITY
Facility Status:	ACTIVE
Expiration Date:	04/30/2022

Name:	NATIONAL TECHNICAL SYSTEMS
Address:	3505 E THIRD ST
City,State,Zip:	SAN BERNARDINO, CA 92408
Region:	SAN BERNARDINO
Facility ID:	FA0016030
Owner:	National Technical Systems

NATIONAL TECHNICAL SYSTEMS (Continued) **S117896923**

Permit Number: PT0034697
Permit Category: SMALL QUANTITY GENERATOR
Facility Status: ACTIVE
Expiration Date: 04/30/2022

Name: NATIONAL TECHNICAL SYSTEMS
Address: 3505 E THIRD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0016030
Owner: National Technical Systems
Permit Number: PT0034696
Permit Category: HAZARDOUS MATERIALS 11-30 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 04/30/2022

CERS:
Name: NATIONAL TECHNICAL SYSTEMS
Address: 3505 E THIRD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Site ID: 137418
CERS ID: 10505722
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 137418
Site Name: National Technical Systems
Violation Date: 07-06-2015
Citation: HSC 6.95 25508.1(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(f)
Violation Description: Failure to electronically update the business plan within 30 days of a substantial change.
Violation Notes: Returned to compliance on 07/23/2015. Observed ~1500 gallon LNG vertical cryogenic tank onsite that was not disclosed in CERS. According to employees, this tank has been onsite for longer than 30 days. Also observed ~7 - 55 gallon drums of heat transfer fluids that were not disclosed in CERS. COMPLIANCE REQUIREMENT: Update the inventory portion in CERS to report the above noted chemicals in inventory. Also update the site map. Signature on the included Certificate of Compliance denotes compliance.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 137418
Site Name: National Technical Systems
Violation Date: 07-06-2015
Citation: HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description: Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 07/23/2015. Failure to manage contaminated containers lawfully (CCR 66261.7) Observed numerous empty containers in the hazardous materials storage area that were not labeled "EMPTY" with the empty date listed. COMPLIANCE REQUIREMENT: Label all empty containers that at one time held a hazardous material as "EMPTY" with the date emptied listed. Within 1 year of being empty, the container must be reused, recycled, or handled in a similar manner. Signature on

NATIONAL TECHNICAL SYSTEMS (Continued) **S117896923**

Certificate of Compliance denotes compliance.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Site ID: 137418
Site Name: National Technical Systems
Violation Date: 08-24-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to prepare an SPCC Plan that meets all applicable requirements.
Violation Notes: Returned to compliance on 11/28/2018. OBSERVATION: The current SPCC plan does not have an accurate and complete inventory and does not list the correct emergency contact number for the local CUPA. ATF, waste kerosene, and any other petroleum products must be listed in the plan. The emergency contact number for San Bernardino County Fire is 909-386-8425. CORRECTIVE ACTION: Submit a signed statement that the SPCC plan has been revised to include this information.
Violation Division: San Bernardino County Fire Department
Violation Program: APSA
Violation Source: CERS,

Site ID: 137418
Site Name: National Technical Systems
Violation Date: 09-02-2021
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 09/02/2021. Corrected while on site.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-06-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-06-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-24-2018

NATIONAL TECHNICAL SYSTEMS (Continued) **S117896923**

Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	ROUTINE APSA INSPECTION-NATIONAL TECHNICAL SYSTEMS
Eval Division:	San Bernardino County Fire Department
Eval Program:	APSA
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-06-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	INSPECTION
Eval Division:	San Bernardino County Fire Department
Eval Program:	HMRRP
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-02-2021
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Bernardino County Fire Department
Eval Program:	APSA
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-02-2021
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Bernardino County Fire Department
Eval Program:	HMRRP
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-24-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	ROUTINE GENERATOR INSPECTION-NATIONAL TECHNICAL SYSTEMS
Eval Division:	San Bernardino County Fire Department
Eval Program:	HW
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-24-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	ROUTINE HANDLER INSPECTION-NATIONAL TECHNICAL SYSTEMS
Eval Division:	San Bernardino County Fire Department
Eval Program:	HMRRP
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-02-2021
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported

NATIONAL TECHNICAL SYSTEMS (Continued) **S117896923**

Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Enforcement Action:
Site ID: 137418
Site Name: National Technical Systems
Site Address: 3505 E THIRD ST
Site City: SAN BERNARDINO
Site Zip: 92408
Enf Action Date: 07-06-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: APSA
Enf Action Source: CERS,

Site ID: 137418
Site Name: National Technical Systems
Site Address: 3505 E THIRD ST
Site City: SAN BERNARDINO
Site Zip: 92408
Enf Action Date: 07-06-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HMRRP
Enf Action Source: CERS,

Site ID: 137418
Site Name: National Technical Systems
Site Address: 3505 E THIRD ST
Site City: SAN BERNARDINO
Site Zip: 92408
Enf Action Date: 07-06-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HW
Enf Action Source: CERS,

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: RICHARD JOHNSON
Entity Title: Not reported
Affiliation Address: 3505 E. Third St.
Affiliation City: San Bernardino
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92408
Affiliation Phone: ,

Affiliation Type Desc: Facility Mailing Address

NATIONAL TECHNICAL SYSTEMS (Continued) **S117896923**

Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	3505 E. Third St.
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92408
Affiliation Phone:	,
Affiliation Type Desc:	Legal Owner
Entity Name:	National Technical Systems
Entity Title:	Not reported
Affiliation Address:	2125 E. Katella Ave.
Affiliation City:	Anaheim
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	91806
Affiliation Phone:	(714) 450-9500,
Affiliation Type Desc:	Operator
Entity Name:	National Technical Systems
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:	(909) 863-5150,
Affiliation Type Desc:	CUPA District
Entity Name:	San Bernardino County Fire
Entity Title:	Not reported
Affiliation Address:	620 South E Street
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92415-0153
Affiliation Phone:	(909) 386-8401,
Affiliation Type Desc:	Document Preparer
Entity Name:	Richard Johnson
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:	,
Affiliation Type Desc:	Parent Corporation
Entity Name:	National Technical Systems
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported

NATIONAL TECHNICAL SYSTEMS (Continued) **S117896923**

Affiliation Phone: ,

Affiliation Type Desc: Identification Signer
Entity Name: Richard Johnson
Entity Title: Facility Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Property Owner
Entity Name: San Bernardino Int'l Airport
Entity Title: Not reported
Affiliation Address: 1601 E. Third St. Ste 100
Affiliation City: San Bernardino
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92408
Affiliation Phone: (909) 382-4100,

B10 **ELITE LAWN & LANDSCAPE** **CA San Bern. Co. Permit** **S106910812**
East **26975 5TH ST** **N/A**
< 1/8 **HIGHLAND, CA 92346**
0.095 mi.
500 ft. **Site 3 of 3 in cluster B**

Relative: **Higher**
Actual: **1169 ft.**

San Bern. Co. Permit:
Name: ELITE LAWN & LANDSCAPE
Address: 26975 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0002894
Owner: VILLAMERO, EDWARD
Permit Number: PT0001210
Permit Category: SPECIAL GENERATOR
Facility Status: INACTIVE
Expiration Date: 11/30/2003

Name: ELITE LAWN & LANDSCAPE
Address: 26975 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0002894
Owner: VILLAMERO, EDWARD
Permit Number: PT0001212
Permit Category: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR
Facility Status: INACTIVE
Expiration Date: 11/30/2003

D11
WSW
< 1/8
0.106 mi.
561 ft.

CANDY'S
26698 3RD ST
HIGHLAND, CA 92346

Site 1 of 5 in cluster D

CA San Bern. Co. Permit **S112142747**
N/A

Relative:
Lower

Actual:
1157 ft.

San Bern. Co. Permit:

Name:	CANDY'S
Address:	26698 3RD ST
City,State,Zip:	HIGHLAND, CA 92346
Region:	SAN BERNARDINO
Facility ID:	FA0014643
Owner:	MCCARTY, VICTOR & CANDACE
Permit Number:	PT0025564
Permit Category:	BULK CO2 AT RETAIL FOOD FACILITIES
Facility Status:	INACTIVE
Expiration Date:	08/31/2013

A12
NE
< 1/8
0.107 mi.
563 ft.

CITY OF HIGHLAND OPERATIONS YARD CERS ID 10053832
7935 CENTRAL AVE
HIGHLANDS, CA 92346

Site 3 of 4 in cluster A

RCRA NonGen / NLR **1024822177**
CAL000339766

Relative:
Higher

Actual:
1167 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:	20090115
Handler Name:	CITY OF HIGHLAND OPERATIONS YARD CERS ID 10053832
Handler Address:	7935 CENTRAL AVE
Handler City,State,Zip:	HIGHLANDS, CA 92346
EPA ID:	CAL000339766
Contact Name:	JIM RICHARDSON
Contact Address:	7935 CENTRAL AVE
Contact City,State,Zip:	HIGHLANDS, CA 92346
Contact Telephone:	909-863-0284
Contact Fax:	909-863-0239
Contact Email:	MMORGAN@CITYOFHIGHLAND.ORG
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:	27215 BASELINE ST
Mailing City,State,Zip:	HIGHLAND, CA 92346
Owner Name:	CITY OF HIGHLAND
Owner Type:	Other
Operator Name:	JIM RICHARDSON
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

CITY OF HIGHLAND OPERATIONS YARD CERS ID 10053832 (Continued) **1024822177**

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
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:	20180905
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:	Operator
Owner/Operator Name: JIM RICHARDSON	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	7935 CENTRAL AVE
Owner/Operator City,State,Zip:	HIGHLANDS, CA 92346

CITY OF HIGHLAND OPERATIONS YARD CERS ID 10053832 (Continued) **1024822177**

Owner/Operator Telephone:	909-863-0284
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: CITY OF HIGHLAND	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	27215 BASELINE ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	909-864-6861
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20090115
Handler Name:	CITY OF HIGHLAND OPERATIONS YARD CERS ID 10053832
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:	92111
NAICS Description:	EXECUTIVE OFFICES

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

A13 **CITY OF HIGHLAND-OPERATIONS YARD** **CA CERS HAZ WASTE** **S109349300**
NE **7935 CENTRAL** **CA San Bern. Co. Permit** **N/A**
< 1/8 **HIGHLAND, CA 92346** **CA CERS**
0.107 mi.
563 ft. **Site 4 of 4 in cluster A**

Relative:
Higher

Actual:
1167 ft.

CERS HAZ WASTE:

Name:	CITY OF HIGHLAND-OPERATIONS YARD
Address:	7935 CENTRAL
City,State,Zip:	HIGHLAND, CA 92346
Site ID:	19625
CERS ID:	10053832
CERS Description:	Hazardous Waste Generator

CITY OF HIGHLAND-OPERATIONS YARD (Continued) **S109349300**

San Bern. Co. Permit:
Name: CITY OF HIGHLAND-OPERATIONS YARD
Address: 7935 CENTRAL
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0011950
Owner: CITY OF HIGHLAND
Permit Number: PT0021004
Permit Category: HAZARDOUS MATERIALS 1-3 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 12/31/2021

Name: CITY OF HIGHLAND-OPERATIONS YARD
Address: 7935 CENTRAL
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0011950
Owner: CITY OF HIGHLAND
Permit Number: PT0021005
Permit Category: CONDITIONALLY EXEMPT SM QTY GENERATOR
Facility Status: ACTIVE
Expiration Date: 12/31/2021

CERS:
Name: CITY OF HIGHLAND-OPERATIONS YARD
Address: 7935 CENTRAL
City,State,Zip: HIGHLAND, CA 92346
Site ID: 19625
CERS ID: 10053832
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 19625
Site Name: CITY OF HIGHLAND-OPERATIONS YARD
Violation Date: 06-24-2020
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 06/24/2020. Last HMBP submitted via CERS occurred on 01/04/2019. Violation corrected on site; operator resubmitted the HMBP during the inspection.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 19625
Site Name: CITY OF HIGHLAND-OPERATIONS YARD
Violation Date: 06-24-2020
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 06/24/2020. The Federal hazard categories require update to the new hazard category system. Violation corrected

CITY OF HIGHLAND-OPERATIONS YARD (Continued) **S109349300**

on site.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-24-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-15-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-31-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-24-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-31-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-15-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION
Eval Division: San Bernardino County Fire Department

CITY OF HIGHLAND-OPERATIONS YARD (Continued) **S109349300**

Eval Program: HMRRP
Eval Source: CERS,

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: San Bernardino County Fire
Entity Title: Not reported
Affiliation Address: 620 South E Street
Affiliation City: San Bernardino
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92415-0153
Affiliation Phone: (909) 386-8401,

Affiliation Type Desc: Environmental Contact
Entity Name: MELISSA MORGAN
Entity Title: Not reported
Affiliation Address: 27215 BASELINE ST
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92346
Affiliation Phone: ,

Affiliation Type Desc: Legal Owner
Entity Name: CITY OF HIGHLAND
Entity Title: Not reported
Affiliation Address: 27215 BASELINE ST
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92346
Affiliation Phone: (909) 864-8732,

Affiliation Type Desc: Operator
Entity Name: Jim Richardson
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (951) 775-8366,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 7935 CENTRAL
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92346
Affiliation Phone: ,

Affiliation Type Desc: Identification Signer
Entity Name: Melissa Morgan
Entity Title: Public Services Manager

CITY OF HIGHLAND-OPERATIONS YARD (Continued) **S109349300**

Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,
Affiliation Type Desc:	Parent Corporation
Entity Name:	CITY OF HIGHLAND
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:	,
Affiliation Type Desc:	Document Preparer
Entity Name:	Jim Richardson
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:	,
Affiliation Type Desc:	Property Owner
Entity Name:	City of Highland
Entity Title:	Not reported
Affiliation Address:	jrichardson@cityofhighland.org
Affiliation City:	Highland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92346
Affiliation Phone:	(909) 864-6861,

D14 **NOBLE METAL LABS INC *D** **RCRA NonGen / NLR** **1025878224**
WSW **26672 3RD ST** **CAP000007934**
< 1/8 **HIGHLAND, CA 92346**
0.115 mi.
606 ft. **Site 2 of 5 in cluster D**

Relative: RCRA NonGen / NLR:
Lower

Actual: Date Form Received by Agency:		20070621
1157 ft. Handler Name:	NOBLE METAL LABS INC *D	
Handler Address:		26672 3RD ST
Handler City,State,Zip:		HIGHLAND, CA 92346
EPA ID:		CAP000007934
Contact Name:		JEREMY BROWN
Contact Address:		26672 3RD ST
Contact City,State,Zip:		HIGHLAND, CA 92346
Contact Telephone:		800-579-6834
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09

NOBLE METAL LABS INC *D (Continued) **1025878224**

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:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		26672 3RD ST
Mailing City,State,Zip:		HIGHLAND, CA 92346
Owner Name:	Not reported	
Owner Type:		Not reported
Operator Name:	Not reported	
Operator Type:		Not reported
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:		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
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

NOBLE METAL LABS INC *D (Continued) **1025878224**

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:	20070702
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

Historic Generators:

Receive Date:	20070320
Handler Name: NOBLE METAL LABS INC	
Federal Waste Generator Description:	Not reported
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:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20070621
Handler Name: NOBLE METAL LABS INC *D	
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 Codes:	No NAICS Codes Found

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

D15 **NOBLE METAL LAB INC *D** **RCRA NonGen / NLR** **1025880480**
WSW **26672 THIRD ST** **CAP000182386**
< 1/8 **HIGHLAND, CA 92346**
0.115 mi.
606 ft. **Site 3 of 5 in cluster D**

Relative: **Lower**

Actual: **1157 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		20070628
Handler Name:	NOBLE METAL LAB INC *D	
Handler Address:		26672 THIRD ST
Handler City,State,Zip:		HIGHLAND, CA 92346
EPA ID:		CAP000182386
Contact Name:		TOM MANGIONE
Contact Address:		PO BOX 337
Contact City,State,Zip:		HIGHLAND, CA 92374
Contact Telephone:		909-225-9710
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09
Land Type:		Private
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		PO BOX 337
Mailing City,State,Zip:		HIGHLAND, CA 92374
Owner Name:	THOMAS MANGIONE	
Owner Type:		Private
Operator Name:	THOMAS MANGIONE	
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:		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

NOBLE METAL LAB INC *D (Continued) **1025880480**

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:	20070702
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

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D002
Waste Description:	CORROSIVE WASTE
Waste Code:	D007
Waste Description:	CHROMIUM

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name: THOMAS MANGIONE	
Legal Status:	Private
Date Became Current:	19760701
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner

NOBLE METAL LAB INC *D (Continued) **1025880480**

Owner/Operator Name: THOMAS MANGIONE
Legal Status: Private
Date Became Current: 19760701
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: THOMAS MANGIONE
Legal Status: Private
Date Became Current: 19760701
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: THOMAS MANGIONE
Legal Status: Private
Date Became Current: 19760701
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20070628
Handler Name: NOBLE METAL LAB INC *D
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

Receive Date: 20070314
Handler Name: NOBLE METAL LAB INC
Federal Waste Generator Description: Small Quantity Generator
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

NOBLE METAL LAB INC *D (Continued) **1025880480**

Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 54138
NAICS Description: TESTING LABORATORIES AND SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

D16 **NOBLE METAL LAB** **CA San Bern. Co. Permit** **S106911008**
WSW **26672 3RD ST** **N/A**
< 1/8 **HIGHLAND, CA 92346**
0.115 mi.
606 ft. **Site 4 of 5 in cluster D**

Relative:
Lower

Actual:
1157 ft.

San Bern. Co. Permit:
Name: NOBLE METAL LAB
Address: 26672 3RD ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0004984
Owner: sogwap corp
Permit Number: PT0001593
Permit Category: HAZARDOUS WASTE GENERATOR - 0-10 EMPLOYEES
Facility Status: INACTIVE
Expiration Date: 11/30/2001

Name: NOBLE METAL LAB
Address: 26672 3RD ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0004984
Owner: sogwap corp
Permit Number: PT0001592
Permit Category: HAZMAT HANDLER 0-10 EMPLOYEES (W/GEN PRMT)
Facility Status: INACTIVE
Expiration Date: 11/30/2001

D17 **JC'S AUTO REPAIR** **CA CERS HAZ WASTE** **S105298719**
WSW **26670 3RD ST** **CA San Bern. Co. Permit** **N/A**
< 1/8 **HIGHLAND, CA 92346** **CA CERS**
0.115 mi.
609 ft. **Site 5 of 5 in cluster D**

Relative:
Lower

Actual:
1157 ft.

CERS HAZ WASTE:
Name: JC'S AUTO REPAIR
Address: 26670 3RD ST
City,State,Zip: HIGHLAND, CA 92346
Site ID: 39587
CERS ID: 10040773
CERS Description: Hazardous Waste Generator

San Bern. Co. Permit:
Name: JC'S AUTO REPAIR
Address: 26670 3RD ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0004044
Owner: RUEDA, JUAN CARLOS
Permit Number: PT0001190
Permit Category: HAZARDOUS MATERIALS 1-3 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 05/31/2022

Name: JC'S AUTO REPAIR
Address: 26670 3RD ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0004044
Owner: RUEDA, JUAN CARLOS
Permit Number: PT0001189
Permit Category: SMALL QUANTITY GENERATOR
Facility Status: ACTIVE
Expiration Date: 05/31/2022

CERS:
Name: JC'S AUTO REPAIR
Address: 26670 3RD ST
City,State,Zip: HIGHLAND, CA 92346
Site ID: 39587
CERS ID: 10040773
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 39587
Site Name: JC'S AUTO REPAIR
Violation Date: 09-09-2014
Citation: HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description: Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 09/09/2014. Failure to label hazardous waste containers (CCR 66262.34(f)(3)) All containers and tanks used to store a hazardous waste must be labeled or marked with the words hazardous waste; and include the following information: generator name and address, hazardous properties of the waste, composition and physical state of the waste, and the accumulation start date. Observed (5) 30 gallon drums of waste coolant to be missing a hazardous waste label.

JC'S AUTO REPAIR (Continued) **S105298719**

Violation corrected at the time of the inspection: Waste coolant drums were labeled properly with all the required information by operator.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Site ID: 39587
Site Name: JC'S AUTO REPAIR
Violation Date: 09-09-2020
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: LAST HMBP SUBMITTED VIA CERS OCCURRED ON 04/23/2018. CORRECTIVE ACTION: COMPLY BY REVIEWING AND CERTIFYING THE BUSINESS PLAN ANNUALLY.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 39587
Site Name: JC'S AUTO REPAIR
Violation Date: 09-09-2014
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.
Violation Notes: Returned to compliance on 07/08/2015. The last business plan update was received on 08/24/2011. The website is located at http://cers.calepa.ca.gov/. Your CERS I.D. number is 10040773.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 39587
Site Name: JC'S AUTO REPAIR
Violation Date: 09-09-2020
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes: EPA ID NUMBER INACTIVE; CAL000244618 CORRECTIVE ACTION: COMPLY BY SUBMITTING FORM 1358 VIA DTSC.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Site ID: 39587
Site Name: JC'S AUTO REPAIR
Violation Date: 09-09-2020
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

JC'S AUTO REPAIR (Continued) **S105298719**

	date.
Violation Notes:	Returned to compliance on 09/09/2020. OBSERVED (2) 30 GALLON DRUMS OF WASTE ANTIFREEZE TO NOT HAVE HAZARDOUS WASTE LABELING. VIOLATION CORRECTED ON SITE.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	39587
Site Name:	JC'S AUTO REPAIR
Violation Date:	09-09-2014
Citation:	22 CCR 16 66266.130 - California Code of Regulations, Title 22, Chapter 16, Section(s) 66266.130
Violation Description:	Failure to properly handle, manage, label, and recycle used oil and fuel filters.
Violation Notes:	Returned to compliance on 09/09/2014. Used oil filters must be managed as a hazardous waste unless the filters are drained of free-flowing used oil and processed for scrap metal recycling. Drained used oil filters must not be accumulated on site longer than one year for amounts less than one ton or 180 days for amounts equal or greater than one ton. Containers used to store drain used oil filters must be labeled as Drained Used Oil Filters , marked with the accumulation start date, and closed when not in use. Observed (1) 55 gallon drum of drained used oil filters. The drum had neither the words Drained Used Oil Filters nor accumulation start date. Violation was corrected at time of inspection: Operator labeled drum with the" Drained Used Oil Filters words, and the accumulation start date. Per operator and record review, accumulation start date is: 03/31/2014.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	39587
Site Name:	JC'S AUTO REPAIR
Violation Date:	09-09-2014
Citation:	HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description:	Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 09/09/2014. Failure to note accumulation start date on labels (CCR 66262.34(f)(2)) Observed (5) 30 gallon drums of waste coolant to be missing the accumulation start date. Violation corrected at the time of the inspection: Operator added accumulation start date to waste coolant hazardous waste label. Per operator and file review. The accumulation start date is 03/31/2014.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	39587
Site Name:	JC'S AUTO REPAIR
Violation Date:	09-09-2020
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:	UPDATE THE HAZARDOUS MATERIALS INVENTORY ITEMS TO DISCLOSE THE NEW

JC'S AUTO REPAIR (Continued) **S105298719**

FEDERAL HAZARD CATEGORIES. CORRECTIVE ACTION: COMPLY BY SUBMITTING AN ACCURATE AND COMPLETE HAZARDOUS MATERIALS INVENTORY VIA CERS.

Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-09-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-05-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-09-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-05-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-09-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-09-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported

JC'S AUTO REPAIR (Continued) **S105298719**

Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Enforcement Action:
Site ID: 39587
Site Name: JC'S AUTO REPAIR
Site Address: 26670 3RD ST
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 09-09-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HMRRP
Enf Action Source: CERS,

Site ID: 39587
Site Name: JC'S AUTO REPAIR
Site Address: 26670 3RD ST
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 09-09-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HW
Enf Action Source: CERS,

Coordinates:
Site ID: 39587
Facility Name: JC'S AUTO REPAIR
Env Int Type Code: HWG
Program ID: 10040773
Coord Name: Not reported
Ref Point Type Desc: Unknown,
Latitude: 34.106700
Longitude: -117.222219

Affiliation:
Affiliation Type Desc: Legal Owner
Entity Name: RUEDA, JUAN CARLOS
Entity Title: Not reported
Affiliation Address: 26670 3rd ST
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92346
Affiliation Phone: (909) 659-8970,

Affiliation Type Desc: Parent Corporation
Entity Name: JC'S AUTO REPAIR
Entity Title: Not reported
Affiliation Address: Not reported

JC'S AUTO REPAIR (Continued) **S105298719**

Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: CUPA District
Entity Name: San Bernardino County Fire
Entity Title: Not reported
Affiliation Address: 620 South E Street
Affiliation City: San Bernardino
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92415-0153
Affiliation Phone: (909) 386-8401,

Affiliation Type Desc: Environmental Contact
Entity Name: JUAN C RUEDA
Entity Title: Not reported
Affiliation Address: 26670 3RD ST
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92346
Affiliation Phone: ,

Affiliation Type Desc: Identification Signer
Entity Name: JUAN C RUEDA
Entity Title: OWNER
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Operator
Entity Name: Juan Rueda
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: (909) 425-5621,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 26670 3RD STREET
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92346
Affiliation Phone: ,

E18
East
1/8-1/4
0.152 mi.
803 ft.

MEYER CONSTRUCTORS
26999 5TH ST
HIGHLAND, CA 92346

Site 1 of 6 in cluster E

CA HIST UST **U001575099**
N/A

Relative:
Higher

Actual:
1173 ft.

HIST UST:

Name:	MEYER CONSTRUCTORS
Address:	26999 5TH ST
City,State,Zip:	HIGHLAND, CA 92346
File Number:	Not reported
URL:	Not reported
Region:	STATE
Facility ID:	00000059681
Facility Type:	Other
Other Type:	PIPELINE CONTRACTORS
Contact Name:	EDWARD J. MEYER
Telephone:	7148621267
Owner Name:	MEYER CONSTRUCTORS
Owner Address:	26999 5TH STREET
Owner City,St,Zip:	HIGHLAND, CA 92346
Total Tanks:	0004
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00007500
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	Not reported
Tank Capacity:	00007500
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor

E19 **MEYER CONSTRUCTORS** **CA HIST UST** **S117704863**
East **26999 5TH STREET** **CA NPDES** **N/A**
1/8-1/4 **HIGHLAND, CA 92346** **CA CIWQS**
0.152 mi.
803 ft. **Site 2 of 6 in cluster E**

Relative:
Higher

Actual:
1173 ft.

HIST UST:

Name:	MEYER CONSTRUCTORS
Address:	26999 5TH STREET
City,State,Zip:	HIGHLAND, CA 92346
File Number:	0002A252
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002A252.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

NPDES:

Name:	MAYFLOWER CONTRACT SERVICES
Address:	26999 5TH ST
City,State,Zip:	HIGHLAND, CA 92346
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	8 36I004684
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	04/07/1992

MEYER CONSTRUCTORS (Continued) **S117704863**

Operator Name:	Mayflower Contract Services
Operator Address:	PO Box 7941
Operator City:	Shawnee Mission
Operator State:	Kansas
Operator Zip:	66207

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	8
Regulatory Measure ID:	287895
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	8 36I004684
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	04/07/1992
Status:	Terminated
Status Date:	04/07/1992
Place Size:	1
Place Size Unit:	Acres
Contact:	Cheryl Seifert
Contact Title:	Not reported
Contact Phone:	415-864-3337
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Mayflower Contract Services
Operator Address:	PO Box 7941
Operator City:	Shawnee Mission
Operator State:	Kansas
Operator Zip:	66207
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	415-495-1800
Emergency Phone Ext:	Not reported

MEYER CONSTRUCTORS (Continued) **S117704863**

Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Santa Ana River
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	4111-Local and Suburban Transit
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Name:	MAYFLOWER CONTRACT SERVICES
Address:	26999 5TH ST
City,State,Zip:	HIGHLAND, CA 92346
Agency:	Mayflower Contract Services
Agency Address:	PO Box 7941, Shawnee Mission, KS 66207
Place/Project Type:	Industrial - Local and Suburban Transit
SIC/NAICS:	4111
Region:	8
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	8 36I004684
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	04/07/1992
Termination Date:	Not reported
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	34.10828
Longitude:	-117.21534

E20 **EJ MEYER** **RCRA NonGen / NLR** **1024804545**
East **26999 E 5TH STREET** **CAL000258671**
1/8-1/4 **HIGHLAND, CA 92346**
0.163 mi.
859 ft. **Site 3 of 6 in cluster E**

Relative: **Higher**

Actual: **1174 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		20020904
Handler Name:	EJ MEYER	
Handler Address:		26999 E 5TH STREET
Handler City,State,Zip:		HIGHLAND, CA 92346-0000
EPA ID:		CAL000258671
Contact Name:		RICHARD HAMMACK
Contact Address:		PO BOX 277
Contact City,State,Zip:		HIGHLAND, CA 92346
Contact Telephone:		909-425-4025
Contact Fax:		909-425-4020
Contact Email:		SHAMMOND@EJMEYER.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:		PO BOX 277
Mailing City,State,Zip:		HIGHLAND, CA 92346-0000
Owner Name:	EJ MEYER CO	
Owner Type:		Other
Operator Name:	RICHARD HAMMACK	
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

EJ MEYER (Continued) **1024804545**

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:	20180905
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: EJ MEYER CO	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 277
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346-0000
Owner/Operator Telephone:	909-425-4025
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: RICHARD HAMMACK	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 277
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	909-425-4025
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

EJ MEYER (Continued) **1024804545**

Historic Generators:
Receive Date: 20020904
Handler Name: EJ MEYER
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: 54133
NAICS Description: ENGINEERING SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

E21 **E.J. MEYER COMPANY** **CA CERS HAZ WASTE** **S109598572**
East **26999 E 5TH ST** **CA San Bern. Co. Permit** **N/A**
1/8-1/4 **HIGHLAND, CA 92346** **CA CERS**
0.163 mi.
859 ft. **Site 4 of 6 in cluster E**

Relative: Higher
Actual: 1174 ft.

CERS HAZ WASTE:
Name: E.J. MEYER COMPANY
Address: 26999 E 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Site ID: 27025
CERS ID: 10054540
CERS Description: Hazardous Waste Generator

San Bern. Co. Permit:
Name: E.J. MEYER COMPANY
Address: 26999 E 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO
Facility ID: FA0012324
Owner: E.J. MEYER COMPANY
Permit Number: PT0021618
Permit Category: SMALL QUANTITY GENERATOR
Facility Status: ACTIVE
Expiration Date: 05/31/2022

Name: E.J. MEYER COMPANY
Address: 26999 E 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Region: SAN BERNARDINO

E.J. MEYER COMPANY (Continued) **S109598572**

Facility ID: FA0012324
Owner: E.J. MEYER COMPANY
Permit Number: PT0021617
Permit Category: HAZARDOUS MATERIALS 4-10 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 05/31/2022

CERS:
Name: E.J. MEYER COMPANY
Address: 26999 E 5TH ST
City,State,Zip: HIGHLAND, CA 92346
Site ID: 27025
CERS ID: 10054540
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 27025
Site Name: E.J. MEYER COMPANY
Violation Date: 01-05-2021
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)
Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.
Violation Notes: Returned to compliance on 01/12/2021. Last hazardous waste transport occurred on 05/11/2020, which exceeds the accumulation time frame. Corrective Action: Comply by disposing of hazardous waste within the accumulation time limit, by submitting records and the CofC.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Site ID: 27025
Site Name: E.J. MEYER COMPANY
Violation Date: 01-03-2018
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 01/03/2018. Failure to label hazardous waste containers (CCR 66262.34(f)(3)) Observed (1) 55 gallon drum of waste coolant to be missing appropriate hazardous waste labeling. Violation was corrected on site at the time of the inspection.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Site ID: 27025
Site Name: E.J. MEYER COMPANY
Violation Date: 01-03-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

E.J. MEYER COMPANY (Continued) **S109598572**

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 02/05/2018. Observed (2) ~122 cubic foot cylinders of oxygen, and (2) ~100 cubic foot cylinders of acetylene that were not disclosed on the most recent hazardous materials business plan on 02/09/2017.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	27025
Site Name:	E.J. MEYER COMPANY
Violation Date:	01-03-2018
Citation:	HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22
Violation Description:	Failure to properly manage used oil and/or fuel filters in accordance with the requirements.
Violation Notes:	Returned to compliance on 02/05/2018. Observed multiple 5 gallon open containers to contain drained used oil filters. Compliance Requirement: Sign the Certificate of Compliance in attestation that all drained used oil filters stored on site have either been properly disposed of or containerized in a closed rainproof container.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	27025
Site Name:	E.J. MEYER COMPANY
Violation Date:	01-03-2018
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 01/03/2018. Failure to complete hazardous waste labels (CCR 66262.34(f)(3)) Observed (1) 480 gallon aboveground storage tank of used lubricating oil to have incomplete hazardous waste labeling; label was missing facility name, physical address, physical characteristics and hazardous properties and accumulation start date. Violation was corrected on site at the time of the inspection.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	27025
Site Name:	E.J. MEYER COMPANY
Violation Date:	01-05-2021
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 01/05/2021. Observed (2) 5 5gallon drums of waste diesel to not have hazardous waste labeling. Violation corrected on site.

E.J. MEYER COMPANY (Continued) **S109598572**

Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-03-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-03-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-05-2021
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-05-2021
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-12-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-12-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION. FUELED VEHICLE.
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP

E.J. MEYER COMPANY (Continued) **S109598572**

Eval Source: CERS,

Affiliation:
Affiliation Type Desc: Legal Owner
Entity Name: E.J. MEYER COMPANY
Entity Title: Not reported
Affiliation Address: PO BOX 277
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92346
Affiliation Phone: (909) 425-4025,

Affiliation Type Desc: Operator
Entity Name: E. J. MEYER COMPANY
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: (909) 425-4025,

Affiliation Type Desc: CUPA District
Entity Name: San Bernardino County Fire
Entity Title: Not reported
Affiliation Address: 620 South E Street
Affiliation City: San Bernardino
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92415-0153
Affiliation Phone: (909) 386-8401,

Affiliation Type Desc: Environmental Contact
Entity Name: ANTONIA REA
Entity Title: Not reported
Affiliation Address: PO BOX 277
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92346
Affiliation Phone: ,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: P.O. BOX 277
Affiliation City: HIGHLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92346
Affiliation Phone: ,

Affiliation Type Desc: Parent Corporation
Entity Name: E.J. MEYER COMPANY
Entity Title: Not reported
Affiliation Address: Not reported

E.J. MEYER COMPANY (Continued) **S109598572**

Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

E22 **MAYFLOWER CONTRACT SERVICES** **RCRA-SQG** **1000472844**
East **26999 E 5TH STREET** **FINDS** **CAD982433757**
1/8-1/4 **HIGHLAND, CA 92346** **ECHO**
0.163 mi.
859 ft. **Site 5 of 6 in cluster E**

Relative: **Higher**
Actual: **1174 ft.**

RCRA-SQG:

Date Form Received by Agency:		19960901
Handler Name:	MAYFLOWER CONTRACT SERVICES	
Handler Address:		26999 E 5TH STREET
Handler City,State,Zip:		HIGHLAND, CA 92346
EPA ID:		CAD982433757
Contact Name:		Not reported
Contact Address:		Not reported
Contact City,State,Zip:		Not reported
Contact Telephone:		Not reported
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:		4
Mailing Address:		P O BOX 682
Mailing City,State,Zip:		HIGHLAND, CA 92346
Owner Name:	Not reported	
Owner Type:		Not reported
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:		---

MAYFLOWER CONTRACT SERVICES (Continued) **1000472844**

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-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:	20020627
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
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: MAYFLOWER CONTRACT SERV	
Legal Status:	Private
Date Became Current:	Not reported

MAYFLOWER CONTRACT SERVICES (Continued) **1000472844**

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: 19960901
Handler Name: MAYFLOWER CONTRACT SERVICES
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

Receive Date: 19901015
Handler Name: MAYFLOWER CONTRACT SERVICES
Federal Waste Generator Description: Large 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: No
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: 110002810860

Click Here for FRS Facility Detail Report:

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

MAYFLOWER CONTRACT SERVICES (Continued) **1000472844**

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:	1000472844
Registry ID:	110002810860
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002810860
Name:	MAYFLOWER CONTRACT SERVICES
Address:	26999 E 5TH STREET
City,State,Zip:	HIGHLAND, CA 92346

F23 **NORTON AIR FORCE BASE - NORTON A F B BLDG 248** **CA UST** **U004267928**
SE **106TH ST** **N/A**
1/8-1/4 **SAN BERNARDINO, CA 92409**
0.164 mi.
865 ft. **Site 1 of 5 in cluster F**

Relative:
Higher

Actual:
1169 ft.

MILITARY UST SITES:

Name:	NORTON AIR FORCE BASE - NORTON A F B BLDG 248
Address:	106TH ST
City,State,Zip:	SAN BERNARDINO, CA 92409
Global ID:	T0607100374
Case Type:	Military UST Site
Status:	Completed - Case Closed
Status Date:	08/11/1995
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Case Worker:	PAH
Local Agency:	Not reported
RB Case Number:	083602642T
Loc Case Number:	0
File Location:	Not reported
Potential Contaminants of Concern:	Diesel
Potential Media Affected:	Soil
Site History:	Not reported
Begin Date:	1989-06-29 00:00:00
How Discovered:	Tank Closure
How Discovered Description:	Not reported
Stop Method:	Not reported
Stop Description:	Not reported
Latitude:	34.1056218422854
Longitude:	-117.216610908508
Geotracker:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607100374

F24 **NORTON AIR FORCE BASE - NORTON A F B BLDG 248** **CA CERS TANKS** **S123539074**
SE **106TH ST** **N/A**
1/8-1/4 **SAN BERNARDINO, CA 92409**
0.164 mi.
865 ft. **Site 2 of 5 in cluster F**

Relative: **Higher**

Actual: **1169 ft.**

CERS TANKS:

Name:	NORTON AIR FORCE BASE - NORTON A F B BLDG 248
Address:	106TH ST
City,State,Zip:	SAN BERNARDINO, CA 92409
Site ID:	213500
CERS ID:	T0607100374
CERS Description:	Military Underground Storage Tank Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	PATRICIA HANNON - SANTA ANA RWQCB (REGION 8)
Entity Title:	Not reported
Affiliation Address:	3737 MAIN STREET, SUITE 500
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

F25 **MATICH CORPORATION** **CA AST** **S108419380**
SSE **3231 E 3RD ST** **CA CERS HAZ WASTE** **N/A**
1/8-1/4 **SAN BERNARDINO, CA 92408** **CA CERS TANKS**
0.167 mi. **CA San Bern. Co. Permit**
880 ft. **Site 3 of 5 in cluster F** **CA CERS**

Relative: **Higher**

Actual: **1168 ft.**

AST:

Name:	MATICH CORPORATION
Address:	3231 E 3RD ST
City/Zip:	SAN BERNARDINO,92408
Certified Unified Program Agencies:	Not reported
Owner:	Stephen Matich
Total Gallons:	Not reported
CERSID:	10051801
Facility ID:	FA0010796
Business Name:	MATICH CORPORATION
Phone:	(909) 382-7400
Fax:	(909) 382-0054
Mailing Address:	3231 East 3RD ST.
Mailing Address City:	SAN BERNARDINO
Mailing Address State:	CA
Mailing Address Zip Code:	92408
Operator Name:	Matich Corporation
Operator Phone:	(909) 382-7400
Owner Phone:	(909) 792-7400
Owner Mail Address:	PO BOX 10
Owner State:	CA
Owner Zip Code:	92346
Owner Country:	United States
Property Owner Name:	Stephen Matich (on behalf of Matich Corp)
Property Owner Phone:	Not reported
Property Owner Mailing Address:	1596 Harry Sheppard
Property Owner City:	SAN BERNARDINO
Property Owner Stat :	CA

MATICH CORPORATION (Continued) **S108419380**

Property Owner Zip Code: 92408
Property Owner Country: United States
EPAID: CAD981375348

CERS HAZ WASTE:
Name: MATICH CORPORATION
Address: 3231 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Site ID: 397228
CERS ID: 10051801
CERS Description: Hazardous Waste Generator

CERS TANKS:
Name: MATICH CORPORATION
Address: 3231 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Site ID: 397228
CERS ID: 10051801
CERS Description: Aboveground Petroleum Storage

San Bern. Co. Permit:
Name: MATICH CORPORATION
Address: 3231 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0010796
Owner: MATICH CORP
Permit Number: PT0018538
Permit Category: LARGE QUANTITY GENERATOR
Facility Status: ACTIVE
Expiration Date: 02/28/2022

Name: MATICH CORPORATION
Address: 3231 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0010796
Owner: MATICH CORP
Permit Number: PT0021214
Permit Category: APSA 10,001-100,000 GAL FAC CAPACITY
Facility Status: ACTIVE
Expiration Date: 02/28/2022

Name: MATICH CORPORATION
Address: 3231 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0010796
Owner: MATICH CORP
Permit Number: PT0018539
Permit Category: HAZARDOUS MATERIALS 11-30 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 02/28/2022

Name: MATICH CORPORATION
Address: 3231 E 3RD ST

MATICH CORPORATION (Continued) **S108419380**

City,State,Zip: SAN BERNARDINO, CA 92408
Region: SAN BERNARDINO
Facility ID: FA0010796
Owner: MATICH CORP
Permit Number: PT0021215
Permit Category: EPCRA FACILITY
Facility Status: INACTIVE
Expiration Date: 02/28/2014

CERS:
Name: MATICH CORPORATION
Address: 3231 E 3RD ST
City,State,Zip: SAN BERNARDINO, CA 92408
Site ID: 397228
CERS ID: 10051801
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 397228
Site Name: MATICH CORPORATION
Violation Date: 04-13-2017
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to include in the SPCC Plan: 1. A contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with an agreement for response, and all Federal, State, and local agencies who must be contacted in case of a discharge 2. Information and procedures that would enable a person reporting an oil discharge to relate all information as described in 40 CFR 112.7(a)(4), unless facility submitted a Facility Response Plan.
Violation Notes: Returned to compliance on 11/13/2017. The contact list and phone numbers for the cleanup contractors with an agreement for response, State, and local agencies who must be contacted in case of a discharge are missing.
Violation Division: San Bernardino County Fire Department
Violation Program: APSA
Violation Source: CERS,

Site ID: 397228
Site Name: MATICH CORPORATION
Violation Date: 04-13-2017
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to adequately discuss in the SPCC Plan all applicable bulk storage containers, or no discussion regarding all applicable bulk storage containers included.
Violation Notes: Returned to compliance on 11/13/2017. The SPCC plan did not adequately discuss the bulk storage containers. On pg 11 of the SPCC plan, under Table 1 Area A, the AST s are documented as double-walled tanks. On pg 17 of the SPCC plan, under Diked Area Inspection and Drainage of Rainwater, the ASTs are referenced as single-walled.
Violation Division: San Bernardino County Fire Department
Violation Program: APSA
Violation Source: CERS,

Site ID: 397228

MATICH CORPORATION (Continued) **S108419380**

Site Name:	MATICH CORPORATION
Violation Date:	04-13-2017
Citation:	HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description:	Failure to address in the SPCC Plan the type of oil and storage capacity for each fixed container, and either the type of oil and storage capacity for each mobile or portable container, or an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities.
Violation Notes:	Returned to compliance on 11/13/2017. On pg 11 of the SPCC plan, the storage capacity for the contents inside the tank is not provided. The type of oil and the amount stored inside the tank shall be indicated in the SPCC plan.
Violation Division:	San Bernardino County Fire Department
Violation Program:	APSA
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-13-2017
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 08/15/2017. At time of inspection, observed hazardous materials above reportable threshold (55 gal, 500lbs, 200 cubic feet) that were not listed in the hazardous materials inventory submittal on 11/28/16.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-13-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 11/13/2017. Failure to note accumulation start date on labels (CCR 66262.34(f)(2)) Accumulation start date missing on the waste antifreeze and waste paper filter drums.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-13-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 11/13/2017. Failure to complete hazardous waste labels (CCR 66262.34(f)(3)) Hazardous waste coolant containers missing information on hazardous waste label.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW

MATICH CORPORATION (Continued) **S108419380**

Violation Source: CERS,

Site ID: 397228
Site Name: MATICH CORPORATION
Violation Date: 04-13-2017
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to discuss in the SPCC Plan procedures to test or inspect each aboveground container for integrity in accordance with industry standards: 1. On a regular schedule. 2. After material repairs are made. 3. By qualified personnel. 4. The frequency and type of testing and inspections based on container size, configuration, and design.
Violation Notes: Returned to compliance on 11/13/2017. Per the SPCC plan, there is no information documenting the industry standards used to determine the testing and inspection procedures for the aboveground containers for integrity testing. Pg 14 of the SPCC plan states monthly inspections are conducted and documented, however the SPCC plan does not go into discussing the industry standard used to determine the inspection frequency. On pg 17, facility sites periodic testing based off of UL standards, however UL standards does not cover integrity testing.
Violation Division: San Bernardino County Fire Department
Violation Program: APSA
Violation Source: CERS,

Site ID: 397228
Site Name: MATICH CORPORATION
Violation Date: 04-13-2017
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to include in the SPCC Plan an adequate facility diagram, or no facility diagram included. The facility diagram is not required on a Tier I qualified facility SPCC Plan.
Violation Notes: Returned to compliance on 11/13/2017. The facility diagram provided in the SPCC plan does not cover all the required information. The aboveground piping connected to the used oil tank along with the storage capacity for each tank is missing from the facility diagram.
Violation Division: San Bernardino County Fire Department
Violation Program: APSA
Violation Source: CERS,

Site ID: 397228
Site Name: MATICH CORPORATION
Violation Date: 04-24-2020
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to discuss in the SPCC Plan procedures to test or inspect each aboveground container for integrity in accordance with industry standards: 1. On a regular schedule. 2. After material repairs are made. 3. By qualified personnel. 4. The frequency and type of testing and inspections based on container size, configuration, and design.
Violation Notes: Returned to compliance on 05/22/2020. OBSERVATION: The SPCC plan mentions SP001 as an industry standard for tank integrity inspections, however, annual inspections are not mentioned in the plan as required by STI SP001. CORRECTIVE ACTION: Submit a signed statement that the SPCC plan and tank inspection checklists have been revised to meet tank industry standards.
Violation Division: San Bernardino County Fire Department

MATICH CORPORATION (Continued) **S108419380**

Violation Program:	APSA
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-13-2017
Citation:	22 CCR 15 66265.192(a) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(a)
Violation Description:	Failure to obtain and maintain a written assessment reviewed and certified by an independent, qualified, professional engineer prior to placing the tank system in service. The written assessment shall state that, the new hazardous waste tank system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system including the foundation, structural support, seams, connections, and pressure controls (if applicable) are suitably designed to meet the regulation.
Violation Notes:	Returned to compliance on 11/13/2017. Integrity assessment of the hazardous waste aboveground storage tank is not being conducted. Integrity testing shall include, but not limited to leak detection contents, sketch of tank dimensions, capacity, and shelve life.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-13-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 11/13/2017. Failure to inspect Hazardous Waste tank (CCR 66265.195) Daily inspections of the 500 gal used oil aboveground storage tank not available for review.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-13-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 11/13/2017. Hazardous waste accumulation time exceeded (CCR 66262.34(a)) Accumulation time for the waste antifreeze has exceeded the 90 day time limit. The accumulation start date for the waste antifreeze drums were missing and disposal records documenting a pickup within 90 days of inspection date were not available for review. The last waste disposal record for the waste antifreeze available for review was dated 2/18/15.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-24-2020

MATICH CORPORATION (Continued) **S108419380**

Citation:	22 CCR 15 66265.195(c) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.195(c)
Violation Description:	Failure to conduct and document inspections of hazardous waste tank systems each operating day and retain records of those inspections at the facility.
Violation Notes:	Returned to compliance on 05/22/2020. OBSERVATION: Daily hazardous waste tank inspection checklists are not being completed and maintained on site. CORRECTIVE ACTION: Submit a copy of two weeks worth of completed daily hazardous waste tank inspection checklists to this office.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-24-2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 05/22/2020. OBSERVATION: The site map submitted in CERS does not include adjacent streets, the emergency evacuation staging area, emergency response equipment, and any storm/sewer drains on site. CORRECTIVE ACTION: Submit a signed statement that updated Business Plan elements have been submitted into CERS.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	01-02-2014
Citation:	HSC 6.95 25505(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)
Violation Description:	Owner/Operator failed to complete and/or submit a Hazardous Materials Business Plan when storing hazardous materials at or above the thresholds quantities of 55 gallons/500 lbs/200 cubic feet.
Violation Notes:	Returned to compliance on 04/13/2017. Need CERS submission
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	397228
Site Name:	MATICH CORPORATION
Violation Date:	04-13-2017
Citation:	HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22
Violation Description:	Failure to properly manage used oil and/or fuel filters in accordance with the requirements.
Violation Notes:	Returned to compliance on 11/13/2017. Observed (2) 55 gal drums of drained used oil filters missing the accumulation start date.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS,

MATICH CORPORATION (Continued) **S108419380**

Site ID: 397228
Site Name: MATICH CORPORATION
Violation Date: 04-13-2017
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 11/13/2017. Failure to label hazardous waste containers (CCR 66262.34(f)(3)) (2) 55 gal drums of waste coolant were missing the hazardous waste label.
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-13-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE HANDLER INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-02-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: new manager - discuss hazmat/cers/apsa
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-02-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: discuss Hazwaste/inventory
Eval Division: San Bernardino County Fire Department
Eval Program: HW

MATICH CORPORATION (Continued) **S108419380**

Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-02-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: SPCC prepared
Eval Division: San Bernardino County Fire Department
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-13-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE GENERATOR INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-13-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE APSA INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Enforcement Action:
Site ID: 397228
Site Name: MATICH CORPORATION
Site Address: 3231 E 3RD ST
Site City: SAN BERNARDINO
Site Zip: 92408
Enf Action Date: 01-02-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HMRRP
Enf Action Source: CERS,

Site ID: 397228
Site Name: MATICH CORPORATION
Site Address: 3231 E 3RD ST
Site City: SAN BERNARDINO
Site Zip: 92408

MATICH CORPORATION (Continued) **S108419380**

Enf Action Date: 04-13-2017
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: APSA
Enf Action Source: CERS,

Site ID: 397228
Site Name: MATICH CORPORATION
Site Address: 3231 E 3RD ST
Site City: SAN BERNARDINO
Site Zip: 92408
Enf Action Date: 04-13-2017
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HMRRP
Enf Action Source: CERS,

Site ID: 397228
Site Name: MATICH CORPORATION
Site Address: 3231 E 3RD ST
Site City: SAN BERNARDINO
Site Zip: 92408
Enf Action Date: 04-13-2017
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HW
Enf Action Source: CERS,

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 3231 East 3RD ST.
Affiliation City: SAN BERNARDINO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92408
Affiliation Phone: ,

Affiliation Type Desc: Parent Corporation
Entity Name: MATICH 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: ,

Affiliation Type Desc: Environmental Contact
Entity Name: Kerry Moore

MATICH CORPORATION (Continued) **S108419380**

Entity Title:	Not reported
Affiliation Address:	3231 EAST 3RD STREET
Affiliation City:	SAN BERNARDINO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92408
Affiliation Phone:	,
Affiliation Type Desc:	Identification Signer
Entity Name:	Kerry Moore
Entity Title:	Equipment Superintendent
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,
Affiliation Type Desc:	Property Owner
Entity Name:	Robert Matich (on behalf of Matich Corp)
Entity Title:	Not reported
Affiliation Address:	1596 Harry Sheppard
Affiliation City:	SAN BERNARDINO
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92408
Affiliation Phone:	(909) 382-7422,
Affiliation Type Desc:	Document Preparer
Entity Name:	Kerry Moore
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:	,
Affiliation Type Desc:	Legal Owner
Entity Name:	MATICH CORP
Entity Title:	Not reported
Affiliation Address:	PO BOX 10
Affiliation City:	HIGHLAND
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92346
Affiliation Phone:	(909) 792-7400,
Affiliation Type Desc:	Operator
Entity Name:	MATICH 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:	(909) 382-7400,

MATICH CORPORATION (Continued) **S108419380**

Affiliation Type Desc:	CUPA District
Entity Name:	San Bernardino County Fire
Entity Title:	Not reported
Affiliation Address:	620 South E Street
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92415-0153
Affiliation Phone:	(909) 386-8401,

F26 **MATICH CORP** **RCRA NonGen / NLR** **1024815744**
SSE **3231 E 3RD ST** **CAL000314877**
1/8-1/4 **SAN BERNARDINO, CA 92408**
0.167 mi.
880 ft. **Site 4 of 5 in cluster F**

Relative: **Higher**
Actual: **1168 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		20061229
Handler Name:	MATICH CORP	
Handler Address:		3231 E 3RD ST
Handler City,State,Zip:		SAN BERNARDINO, CA 92408-0000
EPA ID:		CAL000314877
Contact Name:		KERRY MOORE
Contact Address:		3231 E 3RD ST
Contact City,State,Zip:		SAN BERNARDINO, CA 92408
Contact Telephone:		909-991-2170
Contact Fax:		909-382-0054
Contact Email:		KMOORE@MATICHCORP.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:		3231 E 3RD ST
Mailing City,State,Zip:		SAN BERNARDINO, CA 92408-0000
Owner Name:	MATICH CORPORATION	
Owner Type:		Other
Operator Name:	KERRY MOORE	
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

MATICH CORP (Continued) **1024815744**

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
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:	20180905
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: MATICH CORPORATION	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1596 E HARRY SHEPARD BLVD
Owner/Operator City,State,Zip:	SAN BERNARDINO, CA 92408-0197
Owner/Operator Telephone:	909-382-7400
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

MATICH CORP (Continued) **1024815744**

Owner/Operator Indicator: Operator
Owner/Operator Name: KERRY MOORE
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 3231 E 3RD ST
Owner/Operator City,State,Zip: SAN BERNARDINO, CA 92408
Owner/Operator Telephone: 909-991-2170
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20061229
Handler Name: MATICH CORP
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: 23411
NAICS Description: HIGHWAY AND STREET CONSTRUCTION

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

E27 **CSR AIR CONDITIONING & HEATING, INC.** **RCRA NonGen / NLR** **1024804129**
East **27015 E 5TH ST** **CAL000256584**
1/8-1/4 **HIGHLAND, CA 92346**
0.180 mi.
952 ft. **Site 6 of 6 in cluster E**

Relative:
Higher

Actual:
1175 ft.

RCRA NonGen / NLR:
Date Form Received by Agency: 20020726
Handler Name: CSR AIR CONDITIONING & HEATING, INC.
Handler Address: 27015 E 5TH ST
Handler City,State,Zip: HIGHLAND, CA 92346
EPA ID: CAL000256584
Contact Name: CHRIS LEWIS
Contact Address: 27015 E 5TH ST
Contact City,State,Zip: HIGHLAND, CA 92346
Contact Telephone: 909-862-8600
Contact Fax: 909-862-2734
Contact Email: CSAIRHEATINC@HOTMAIL.COM
Contact Title: Not reported

CSR AIR CONDITIONING & HEATING, INC. (Continued) **1024804129**

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:		PO BOX 889
Mailing City,State,Zip:		HIGHLAND, CA 92346-0000
Owner Name:	MARK LEWIS	
Owner Type:		Other
Operator Name:	CHRIS LEWIS	
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
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

CSR AIR CONDITIONING & HEATING, INC. (Continued) **1024804129**

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:	20180905
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:	Operator
Owner/Operator Name: CHRIS LEWIS	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	27015 E 5TH ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	909-862-8600
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: MARK LEWIS	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	35786 PANORAMA DR
Owner/Operator City,State,Zip:	YUCAIPA, CA 92399
Owner/Operator Telephone:	909-208-8008
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20020726
Handler Name:	CSR AIR CONDITIONING & HEATING, INC.
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:	23511

CSR AIR CONDITIONING & HEATING, INC. (Continued) **1024804129**

NAICS Description: PLUMBING, HEATING, AND AIR-CONDITIONING CONTRACTORS

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

G28 **HOME SAVINGS OF AMERICA** **RCRA-SQG** **1025878637**
WNW **26674 WARD ST** **CAP000043778**
1/8-1/4 **HIGHLAND, CA 92346**
0.188 mi.
995 ft. **Site 1 of 2 in cluster G**

Relative:
Lower

Actual:
1156 ft.

RCRA-SQG:

Date Form Received by Agency:	19980827
Handler Name:	HOME SAVINGS OF AMERICA
Handler Address:	26674 WARD ST
Handler City,State,Zip:	HIGHLAND, CA 92346
EPA ID:	CAP000043778
Contact Name:	SCOTT NUNES
Contact Address:	100 S VINCENT AVE STE 501
Contact City,State,Zip:	WEST COVINA, CA 91790
Contact Telephone:	626-931-2068
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	09
Land Type:	Other
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:	Not reported
State District:	Not reported
Mailing Address:	100 S VINCENT AVE STE 501
Mailing City,State,Zip:	WEST COVINA, CA 91790
Owner Name:	HOME SAVINGS OF AMERICA
Owner Type:	Other
Operator Name:	Not reported
Operator Type:	Not reported
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

HOME SAVINGS OF AMERICA (Continued) **1025878637**

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
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:	20021022
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: HOME SAVINGS OF AMERICA	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	4900 RIVERGRADE RD
Owner/Operator City,State,Zip:	IRWINDALE, CA 91706
Owner/Operator Telephone:	626-814-7987
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

HOME SAVINGS OF AMERICA (Continued) **1025878637**

Historic Generators:
- Receive Date: 19980827
- Handler Name: HOME SAVINGS OF AMERICA
- Federal Waste Generator Description: Small Quantity Generator
- 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 Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

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29 **CONNIE ROBLES** **RCRA NonGen / NLR** **1025833585**
NNE **7858 CENTRAL AVENUE** **CAC003013162**
1/8-1/4 **HIGHLAND, CA 92346**
0.200 mi.
1056 ft.

Relative: **Higher**

Actual: **1170 ft.**

RCRA NonGen / NLR:
- Date Form Received by Agency: 20190502
- Handler Name: CONNIE ROBLES
- Handler Address: 7858 CENTRAL AVENUE
- Handler City,State,Zip: HIGHLAND, CA 92346-4102
- EPA ID: CAC003013162
- Contact Name: CONNIE ROBLES
- Contact Address: 7858 CENTRAL AVENUE
- Contact City,State,Zip: HIGHLAND, CA 92346-4102
- Contact Telephone: 909-864-4589
- Contact Fax: Not reported
- Contact Email: TAMMYHURLEY@ALLIANCE-ENVIRO.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: 7858 CENTRAL AVENUE
- Mailing City,State,Zip: HIGHLAND, CA 92346-4102
- Owner Name: CONNIE ROBLES
- Owner Type: Other

CONNIE ROBLES (Continued) **1025833585**

Operator Name:	CONNIE ROBLES
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
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:	20190627
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

CONNIE ROBLES (Continued) **1025833585**

Handler - Owner Operator:
Owner/Operator Indicator: Operator
Owner/Operator Name: CONNIE ROBLES
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 7858 CENTRAL AVENUE
Owner/Operator City,State,Zip: HIGHLAND, CA 92346-4102
Owner/Operator Telephone: 909-864-4589
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: CONNIE ROBLES
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 7858 CENTRAL AVENUE
Owner/Operator City,State,Zip: HIGHLAND, CA 92346-4102
Owner/Operator Telephone: 909-864-4589
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20190502
Handler Name: CONNIE ROBLES
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: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

F30 **NORTON AFB LANDFILL** **CA SWF/LF** **S105247958**
SE **I-10/US 395 FORMER NORTON AFB** **CA CERS** **N/A**
1/8-1/4 **SAN BERNARDINO, CA 92408**
0.208 mi.
1099 ft. **Site 5 of 5 in cluster F**

Relative:
Higher

Actual:
1171 ft.

SWF/LF (SWIS):

Name:	NORTON AFB LANDFILL
Address:	I-10/US 395 FORMER NORTON AFB
City,State,Zip:	SAN BERNARDINO, CA 92408
Region:	STATE
Facility ID:	36-AA-0312
SWIS Number:	36-AA-0312
Point of Contact:	Dawn Liang
Is Archived:	No
Is Closed Illegal Abandoned:	Yes
Is Site Inert Debris Engineered Fill:	No
Is Financial Assurances Responsible:	No
Absorbed On:	Not reported
Operational Status:	Closed
Absorbed By:	Not reported
Closed Illegal Abandoned Category:	C2
EPA Federal Registry ID:	Not reported
ARB District:	South Coast
SWRCB Region:	Santa Ana
Local Government:	San Bernardino
Reporting Agency Legal Name:	County of San Bernardino
Reporting Agency Department:	Div. of Environmental Health Services
Enforcing Agency Legal Name:	County of San Bernardino
Enforcing Agency Department:	Div. of Environmental Health Services
Regulation Status:	Unpermitted

Activity:

SWIS Number:	36-AA-0312
Site Name:	Norton AFB Landfill
Activity:	Solid Waste Disposal Site
Activity Is Archived:	No
Category:	Disposal
Activity Classification:	Solid Waste Disposal Site
WDR Number:	Not reported
WDR Landfill Class:	Not reported
Cease Operation:	Not reported
Cease Operation Type:	Not reported
Inspection Frequency:	Semi-annual
Throughput:	Not reported
Throughput Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity Date:	Not reported
Capacity:	Not reported
Capacity Units:	Not reported
Total Acreage:	0
Disposal Acreage:	0
Permitted Elevation:	Not reported
Permitted Elevation Type:	Not reported
Permitted Depth:	Not reported
Permitted Depth Type:	Not reported
Point of Contact:	Dawn Liang
Site Operational Status:	Closed
Site Regulatory Status:	Unpermitted
Site Is Archived:	No

NORTON AFB LANDFILL (Continued) **S105247958**

Is Closed Illegal Abandoned:	Yes
Is Site Inert Debris Engineered Fill:	No
Is Financial Assurances Responsible:	No
Absorbed On:	Not reported
Absorbed By:	Not reported
Closed Illegal Abandoned Category:	C2
EPA Federal Registry ID:	Not reported
County:	San Bernardino
ARB District:	South Coast
SWRCB Region:	Santa Ana
Local Government:	San Bernardino
Street Address:	I-10/US 395 Former Norton AFB
City:	San Bernardino
State:	CA
ZIP Code:	92408
Reporting Agency Legal Name:	County of San Bernardino
Reporting Agency Department:	Div. of Environmental Health Services
Enforcing Agency Legal Name:	County of San Bernardino
Enforcing Agency Department:	Div. of Environmental Health Services

Owner:

SWIS Number:	36-AA-0312
Owner:	US Dept Of Air Force-Norton Afb
Owner Address:	Headqrtrs Co3d Combat Support Grp (Mac)
Owner City:	Norton Afb
Owner State:	CA
Owner Zip:	92409
Site Name:	Norton AFB Landfill
Site Operational Status:	Closed
Site Type:	Disposal Only
Site Regulatory Status:	Unpermitted
Latitude:	34.10517
Longitude:	-117.21563
Is Archived:	No
Started On:	Not reported
Contact Name:	Gary Underwood Col
Contact Title:	Usaf Base Commander
Contact Email:	Not reported
Contact Phone:	(909) 382-2444

CERS:

Name:	NORTON AFB LANDFILL
Address:	I-10/US 395 FORMER NORTON AFB
City,State,Zip:	SAN BERNARDINO, CA
Site ID:	510537
CERS ID:	36-AA-0312
CERS Description:	Solid Waste and Recycle Sites

Affiliation:

Affiliation Type Desc:	Legal Owner
Entity Name:	US Dept Of Air Force-Norton Afb
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Norton Afb
Affiliation State:	CA
Affiliation Country:	Not reported

NORTON AFB LANDFILL (Continued) **S105247958**

Affiliation Zip: 92409
Affiliation Phone: 9093822444,

H31 **YVONNE MIRANDA** **RCRA NonGen / NLR** **1026812793**
NNW **26731 FLEMING ST** **CAC003125327**
1/8-1/4 **HIGHLAND, CA 92346**
0.220 mi.
1164 ft. **Site 1 of 2 in cluster H**

Relative: **Lower**
Actual: **1161 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		20210618
Handler Name:	YVONNE MIRANDA	
Handler Address:		26731 FLEMING ST
Handler City,State,Zip:		HIGHLAND, CA 92346
EPA ID:		CAC003125327
Contact Name:		YVONNE MIRANDA
Contact Address:		26731 FLEMING ST
Contact City,State,Zip:		HIGHLAND, CA 92346
Contact Telephone:		909-206-9156
Contact Fax:		Not reported
Contact Email:		FAVILA@BURNS-ENVIRO.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:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		26731 FLEMING ST
Mailing City,State,Zip:		HIGHLAND, CA 92346
Owner Name:	YVONNE MIRANDA	
Owner Type:		Other
Operator Name:	YVONNE MIRANDA	
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:		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:		N
Sub-Part K Indicator:		Not reported

YVONNE MIRANDA (Continued) **1026812793**

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-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:	20210618
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: YVONNE MIRANDA	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26731 FLEMING ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	909-206-9156
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: YVONNE MIRANDA	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26731 FLEMING ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346

YVONNE MIRANDA (Continued) **1026812793**

Owner/Operator Telephone: 909-206-9156
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20210618
Handler Name: YVONNE MIRANDA
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: No
Electronic Manifest Broker: No

List of NAICS Codes and Descriptions:
NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

G32 **REIMUNDO BALLESTEROS** **RCRA NonGen / NLR** **1024746950**
NW **26659 6TH STREET** **CAC002966722**
1/8-1/4 **HIGHLAND, CA 92346**
0.222 mi.
1172 ft. **Site 2 of 2 in cluster G**

Relative: **Lower**
Actual: **1157 ft.**

RCRA NonGen / NLR:
Date Form Received by Agency: 20180615
Handler Name: REIMUNDO BALLESTEROS
Handler Address: 26659 6TH STREET
Handler City,State,Zip: HIGHLAND, CA 92346
EPA ID: CAC002966722
Contact Name: REIMUNDO BALLESTEROS
Contact Address: 26659 6TH STREET
Contact City,State,Zip: HIGHLAND, CA 92346
Contact Telephone: 909-725-6397
Contact Fax: Not reported
Contact Email: VIANCATARANGO@ALLIANCE-ENVIRO.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

REIMUNDO BALLESTEROS (Continued) **1024746950**

State District Owner:		Not reported
State District:		Not reported
Mailing Address:		26659 6TH STREET
Mailing City,State,Zip:		HIGHLAND, CA 92346
Owner Name:	REIMUNDO BALLESTEROS	
Owner Type:		Other
Operator Name:	REIMUNDO BALLESTEROS	
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
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:		20180831
Recognized Trader-Importer:		No

REIMUNDO BALLESTEROS (Continued) **1024746950**

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:	REIMUNDO BALLESTEROS
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26659 6TH STREET
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	909-725-6397
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	REIMUNDO BALLESTEROS
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	26659 6TH STREET
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	909-725-6397
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20180615
Handler Name:	REIMUNDO BALLESTEROS
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:	56299
NAICS Description:	ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations:	No Violations Found

REIMUNDO BALLESTEROS (Continued) **1024746950**

Evaluation Action Summary:
Evaluations: No Evaluations Found

H33 **JONATHAN P BENSON AND LINDA MARIE BENSON** **RCRA NonGen / NLR** **1026708624**
NNW **7865 CUNNINGHAM ST** **CAC003096654**
1/8-1/4 **HIGHLAND, CA 92346**
0.225 mi.
1189 ft. **Site 2 of 2 in cluster H**

Relative:
Lower

Actual:
1160 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:	20201210
Handler Name:	JONATHAN P BENSON AND LINDA MARIE BENSON
Handler Address:	7865 CUNNINGHAM ST
Handler City,State,Zip:	HIGHLAND, CA 92346
EPA ID:	CAC003096654
Contact Name:	LINDA BENSON
Contact Address:	7865 CUNNINGHAM ST
Contact City,State,Zip:	HIGHLAND, CA 92346
Contact Telephone:	951-202-2532
Contact Fax:	Not reported
Contact Email:	FAVILA@BURNS-ENVIRO.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:	Not reported
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	7865 CUNNINGHAM ST
Mailing City,State,Zip:	HIGHLAND, CA 92346
Owner Name:	JONATHAN P BENSON AND LINDA MARIE B
Owner Type:	Other
Operator Name:	LINDA BENSON
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:	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:	N

JONATHAN P BENSON AND LINDA MARIE BENSON (Continued) **1026708624**

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-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:	20201218
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:	JONATHAN P BENSON AND LINDA MARIE B
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	7865 CUNNINGHAM ST
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	951-202-2532
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	LINDA BENSON
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	7865 CUNNINGHAM ST

JONATHAN P BENSON AND LINDA MARIE BENSON (Continued) **1026708624**

Owner/Operator City,State,Zip: HIGHLAND, CA 92346
Owner/Operator Telephone: 951-202-2532
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20201210
Handler Name: JONATHAN P BENSON AND LINDA MARIE BENSON
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: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

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34 **PENSKE** **RCRA NonGen / NLR** **1025860751**
East **27056 5TH ST** **CAC003041416**
1/8-1/4 **HIGHLAND, CA 92346**
0.228 mi.
1204 ft.

Relative: **Higher**

Actual: **1178 ft.**

RCRA NonGen / NLR:
Date Form Received by Agency: 20191101
Handler Name: PENSKE
Handler Address: 27056 5TH ST
Handler City,State,Zip: HIGHLAND, CA 92346-4210
EPA ID: CAC003041416
Contact Name: SHUAN LONG
Contact Address: 2675 MORGANTOWN RD
Contact City,State,Zip: READING, PA 19607-9676
Contact Telephone: 440-349-2700
Contact Fax: Not reported
Contact Email: SLONG@ERTSONLINE.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

PENSKE (Continued) **1025860751**

Active Site Indicator:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		2675 MORGANTOWN RD
Mailing City,State,Zip:		READING, PA 19607-9676
Owner Name:	PENSKE PEARLMAN	
Owner Type:		Other
Operator Name:	SHUAN LONG	
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:		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:		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
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:		20191108

PENSKE (Continued) **1025860751**

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:	Operator
Owner/Operator Name: SHUAN LONG	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2675 MORGANTOWN RD
Owner/Operator City,State,Zip:	READING, PA 19607-9676
Owner/Operator Telephone:	440-349-2700
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: PENSKE PEARLMAN	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2675 MORGANTOWN RD
Owner/Operator City,State,Zip:	READING, PA 19607-9676
Owner/Operator Telephone:	440-349-2700
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20191101
Handler Name: PENSKE	
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:	336390
NAICS Description:	OTHER MOTOR VEHICLE PARTS MANUFACTURING

Facility Has Received Notices of Violations:

Violations:	No Violations Found

PENSKE (Continued) **1025860751**

Evaluation Action Summary:
Evaluations: No Evaluations Found

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35 **MONTE MOUNT** **RCRA NonGen / NLR** **1025851691**
North **7827 COLWYN AVE** **CAC003031813**
1/8-1/4 **HIGHLAND, CA 92346**
0.239 mi.
1263 ft.

Relative:
Higher

Actual:
1165 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:		20190830
Handler Name:	MONTE MOUNT	
Handler Address:		7827 COLWYN AVE
Handler City,State,Zip:		HIGHLAND, CA 92346-4124
EPA ID:		CAC003031813
Contact Name:		MONTE MOUNT
Contact Address:		7827 COLWYN AVE
Contact City,State,Zip:		HIGHLAND, CA 92346-4124
Contact Telephone:		909-499-5022
Contact Fax:		Not reported
Contact Email:		TAMMYHURLEY@ALLIANCE-ENVIRO.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:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		7827 COLWYN AVE
Mailing City,State,Zip:		HIGHLAND, CA 92346-4124
Owner Name:	MONTE MOUNT	
Owner Type:		Other
Operator Name:	MONTE MOUNT	
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:		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:		N

MONTE MOUNT (Continued) **1025851691**

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-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:	20190910
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: MONTE MOUNT	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	7827 COLWYN AVE
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346-4124
Owner/Operator Telephone:	909-499-5022
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: MONTE MOUNT	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	7827 COLWYN AVE

MONTE MOUNT (Continued) **1025851691**

Owner/Operator City,State,Zip: HIGHLAND, CA 92346-4124
Owner/Operator Telephone: 909-499-5022
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20190830
Handler Name: MONTE MOUNT
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: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

I36 **NORTON AIR FORCE BASE - NORTON A F B BLDG 228** **CA UST** **U004267914**
SSE **W STREET** **N/A**
1/8-1/4 **SAN BERNARDINO, CA 92409**
0.240 mi.
1268 ft. **Site 1 of 2 in cluster I**

Relative:
Higher

Actual:
1166 ft.

MILITARY UST SITES:
Name: NORTON AIR FORCE BASE - NORTON A F B BLDG 228
Address: W STREET
City,State,Zip: SAN BERNARDINO, CA 92409
Global ID: T0607100350
Case Type: Military UST Site
Status: Completed - Case Closed
Status Date: 07/27/1995
Lead Agency: SANTA ANA RWQCB (REGION 8)
Case Worker: PAH
Local Agency: Not reported
RB Case Number: 083602582T
Loc Case Number: 0
File Location: Not reported
Potential Contaminants of Concern: Diesel
Potential Media Affected: Soil
Site History: Not reported
Begin Date: 1989-06-29 00:00:00
How Discovered: Tank Closure

NORTON AIR FORCE BASE - NORTON A F B BLDG 228 (Continued) **U004267914**

How Discovered Description:	Not reported
Stop Method:	Not reported
Stop Description:	Not reported
Latitude:	34.1040840664264
Longitude:	-117.217901249683
Geotracker:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607100350

I37 **NORTON AIR FORCE BASE - NORTON A F B BLDG 228** **CA CERS TANKS** **S123539348**
SSE **W STREET** **N/A**
1/8-1/4 **SAN BERNARDINO, CA 92409**
0.240 mi.
1268 ft. **Site 2 of 2 in cluster I**

Relative:
Higher

Actual:
1166 ft.

CERS TANKS:

Name:	NORTON AIR FORCE BASE - NORTON A F B BLDG 228
Address:	W STREET
City,State,Zip:	SAN BERNARDINO, CA 92409
Site ID:	230798
CERS ID:	T0607100350
CERS Description:	Military Underground Storage Tank Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	PATRICIA HANNON - SANTA ANA RWQCB (REGION 8)
Entity Title:	Not reported
Affiliation Address:	3737 MAIN STREET, SUITE 500
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

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38 **FORMER SKEET RANGE NO. 2** **UXO** **1024717560**
SSE **N/A**
1/4-1/2 **SAN BERNARDINO, CA**
0.456 mi.
2410 ft.

Relative:
Higher

Actual:
1174 ft.

UXO:

DoD Component:	Air Force
Installation Name:	NORTON
Name:	FORMER SKEET RANGE NO. 2
Address:	Not reported
Address 2:	Not reported
City,State,Zip:	SAN BERNARDINO, CA
Site ID:	SR401
Site Type:	Small Arms Range
Latitude:	34.101683
Longitude:	-117.214585

J39 **SAFETY-KLEEN CORP** **CA LUST** **1000224427**
East **7979 PALM AVE** **CA CERS HAZ WASTE** **N/A**
1/2-1 **HIGHLAND, CA 92346** **CA SWEEPS UST**
0.572 mi. **CA HIST UST**
3021 ft. **Site 1 of 3 in cluster J** **CA CERS TANKS**
CA CHMIRS
Relative: **CA HWP**
Higher **CA NPDES**
Actual: **CA WDS**
1199 ft. **CA CIWQS**
CA CERS

LUST:

Name:	SAFETY-KLEEN CORPORATION
Address:	7979 PALM AVE
City,State,Zip:	HIGHLAND, CA 92346
Lead Agency:	DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607100369
Global Id:	T0607100369
Latitude:	34.1083737
Longitude:	-117.2084252
Status:	Completed - Case Closed
Status Date:	12/06/2019
Case Worker:	Not reported
RB Case Number:	083602626T
Local Agency:	SAN BERNARDINO COUNTY
File Location:	Not reported
Local Case Number:	CAT000613927
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Stoddard solvent / Mineral Spriits / Distillates
Site History:	DTSC lead agengy for site. Consult DTSC's Envirostor database site site status. UST portion of case was closed by DTSC.

LUST:

Global Id:	T0607100369
Contact Type:	Local Agency Caseworker
Contact Name:	CATHERINE RICHARDS
Organization Name:	SAN BERNARDINO COUNTY
Address:	620 SOUTH E STREET
City:	SAN BERNARDINO
Email:	crichards@sbcfire.org
Phone Number:	9093868419

Global Id:	T0607100369
Contact Type:	Regional Board Caseworker
Contact Name:	MIGUEL OVIEDO
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 Main Street, Suite 500
City:	RIVERSIDE
Email:	miguel.oviedo@waterboards.ca.gov
Phone Number:	9517823238

LUST:

Global Id:	T0607100369
Action Type:	Other
Date:	01/10/1994
Action:	Leak Reported

SAFETY-KLEEN CORP (Continued) **1000224427**

Global Id: T0607100369
Action Type: ENFORCEMENT
Date: 07/07/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0607100369
Action Type: ENFORCEMENT
Date: 10/28/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0607100369
Action Type: ENFORCEMENT
Date: 02/19/2008
Action: Technical Correspondence / Assistance / Other

LUST:
Global Id: T0607100369
Status: Open - Case Begin Date
Status Date: 01/10/1994

Global Id: T0607100369
Status: Open - Site Assessment
Status Date: 01/10/1994

Global Id: T0607100369
Status: Completed - Case Closed
Status Date: 12/06/2019

CERS HAZ WASTE:
Name: SAFETY-KLEEN SYSTEMS, INC
Address: 7979 PALM AVE UNIT E
City,State,Zip: HIGHLAND, CA 92346
Site ID: 402305
CERS ID: 10145863
CERS Description: Hazardous Waste Generator

SWEEPS UST:
Name: SAFETY-KLEEN CORP
Address: 7979 PALM AVE
City: HIGHLAND
Status: Not reported
Comp Number: 6282
Number: Not reported
Board Of Equalization: 44-009069
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 36-000-006282-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: UNKNOWN
STG: WASTE
Content: Not reported

SAFETY-KLEEN CORP (Continued) **1000224427**

Number Of Tanks: 3

Name: SAFETY-KLEEN CORP
Address: 7979 PALM AVE
City: HIGHLAND
Status: Not reported
Comp Number: 6282
Number: Not reported
Board Of Equalization: 44-009069
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 36-000-006282-000002
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: UNKNOWN
STG: WASTE
Content: Not reported
Number Of Tanks: Not reported

Name: SAFETY-KLEEN CORP
Address: 7979 PALM AVE
City: HIGHLAND
Status: Not reported
Comp Number: 6282
Number: Not reported
Board Of Equalization: 44-009069
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 36-000-006282-000003
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: NOT STATED
Number Of Tanks: Not reported

Name: SAFETY-KLEEN CORP
Address: 7979 PALM AVE
City: HIGHLAND
Status: Active
Comp Number: 6282
Number: 9
Board Of Equalization: 44-009069
Referral Date: 03-24-92
Action Date: 06-21-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported

SAFETY-KLEEN CORP (Continued) **1000224427**

Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

HIST UST:
Name: SAFETY-KLEEN CORP 7-172-01
Address: 7979 PALM AVENUE
City,State,Zip: HIGHLAND, CA 92346
File Number: 0002A584
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002A584.pdf
Region: STATE
Facility ID: 00000006282
Facility Type: Other
Other Type: PARTS WASHER SERVICE
Contact Name: BILL SPENCER
Telephone: 3126978460
Owner Name: SAFETY-KLEEN CORP.
Owner Address: 655 BIG TIMBER ROAD
Owner City,St,Zip: ELGIN, IL 60120
Total Tanks: 0003

Tank Num: 001
Container Num: 01
Year Installed: 1977
Tank Capacity: 00010000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: .25
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: 02
Year Installed: 1977
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: .1875
Leak Detection: Visual, Stock Inventor

Tank Num: 003
Container Num: 03
Year Installed: 1977
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: .25
Leak Detection: Visual, Stock Inventor

Click here for Geo Tracker PDF:

CERS TANKS:
Name: SAFETY-KLEEN SYSTEMS, INC
Address: 7979 PALM AVE UNIT E
City,State,Zip: HIGHLAND, CA 92346
Site ID: 402305

SAFETY-KLEEN CORP (Continued) **1000224427**

CERS ID: 10145863
CERS Description: Aboveground Petroleum Storage

CHMIRS:

Name:	Not reported
Address:	7979 PALM AVE
City,State,Zip:	HIGHLAND, CA 92346
OES Incident Number:	8-2790
OES notification:	06/17/1998
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1998
Agency:	Safteyclean Corp
Incident Date:	6/16/199812:00:00 AM
Admin Agency:	San Bernardino County Health Department
Amount:	Not reported
Contained:	Yes
Site Type:	Industrial Plant
E Date:	Not reported
Substance:	Gasoline-waste
Gallons:	13
Unknown:	0

SAFETY-KLEEN CORP (Continued) **1000224427**

Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	30-gal drum fell to concrete spilling contents. Cleaned up.

HWP:

EPA ID:	CAT000613927
Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address:	7979 PALM AVE #E
Cleanup Status:	CLOSED
Latitude:	34.10682
Longitude:	-117.2082
Facility Type:	Historical - Non-Operating
Facility Size:	Small Storage
Supervisor:	WILLIAM HEUNG
Site Code:	400247
Senate District:	23
Assembly District:	40
Public Information Officer:	Not reported
Commercial Offsite Facility Types:	Not reported
Quarterly Update:	QUARTERLY UPDATE Quarterly Update Period: October 2021 to December 2021 The Department of Toxic Substances Control (DTSC) received the Closure Certification Report (Report) on December 6, 2019. The closure activities included the inspection and decontamination of the following: - One 11,000-gallon double walled underground storage tank (UST). - Two drum washer units (155-gallon capacity each) and the return and fill station. - One container storage area with a total waste storage capacity of 4,320 gallons. Based on the review of the Report, DTSC confirms that Safety-Kleen Systems Inc. Highland Service Center (Facility) has completed all the closure activities in accordance with the approved Closure Plan and acknowledges that the Facility is now closed. Permit Activity: The current Permit was issued on 6/23/07 and expired on 6/23/17. This facility has two permitted units. Unit 1: Underground Storage Tank and the Return and Fill Unit Unit 2: Drum/container Storage Area A Call in letter for next permit renewal application was issued on December 2, 2015. Pre-application meeting occurred on June 30, 2016. Currently the Facility is preparing Part A and B in order to submit the Application in Fall 2016. In May 2017, the application was withdrawn and facility initiated closure of the facility. FACILITY DESCRIPTION/ HISTORY The facility is located at 7979 Palm Avenue in Highland, San Bernardino County, California, and is categorized as a small storage facility. Safety-Kleen Systems, Inc. (Safety-Kleen) began operation in 1968 to provide solvent reclamation and supply service for customers primarily engaged in automotive

SAFETY-KLEEN CORP (Continued) **1000224427**

repair, industrial maintenance, and dry cleaning. The facility provides customers with parts cleaner services, which involve small parts degreasing units consisting of a sink affixed to the top of a 16- or 30-gallon drum of cleaner solvent at the customer s location. The facility distributes parts washing cleaners and immersion cleaners (carburetor cleaner) for use in the degreasing units. Safety-Kleen s

Project Manager Lead: PARISA KHOSRAVIANI
Project Manager: PARISA KHOSRAVIANI
Permit Type: RCRA
Permit Effective Date: Not reported
Permit Expiration Date: Not reported
Calenviroscreen Score: 96-100% (highest scores)
Total Planned Hours: Not reported
Total Planned Amount: Not reported
Total Actual Hours: Not reported

Activities:

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1993-01-05 00:00:00
Type: RCRA
Title Description: Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - PERMIT APPEALED - APPEAL RECEIVED
Actual Date: 04/20/1994

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1993-01-05 00:00:00
Type: RCRA
Title Description: Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - 1ST NOTICE OF DEFICIENCY ISSUED
Actual Date: 06/11/1991

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER

SAFETY-KLEEN CORP (Continued) **1000224427**

Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Status:	CLOSED
Activity Type:	New Operating Permit
Permit Being Renewed:	Not reported
Permit Being Modified:	Not reported
Final Date:	1994-09-17 00:00:00
Type:	RCRA
Title Description:	Revised initial permit
Due Date:	Not reported
Comments:	Not reported
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	New Operating Permit - FINAL PERMIT
Actual Date:	09/17/1994

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Status:	CLOSED
Activity Type:	Renewal - No Changes
Permit Being Renewed:	Renewal - No Changes
Permit Being Modified:	Not reported
Final Date:	2017-06-27 00:00:00
Type:	RCRA
Title Description:	Permit Renewal - Withdrawn
Due Date:	Not reported
Comments:	Application was received on October 5, 2016. Administrative Review was completed within 30 days of receipt of Application
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	Renewal - No Changes - INITIAL ADMINISTRATIVE REVIEW COMPLETED
Actual Date:	11/02/2016

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Status:	CLOSED
Activity Type:	Renewal - No Changes
Permit Being Renewed:	Not reported
Permit Being Modified:	Not reported
Final Date:	2007-05-23 00:00:00
Type:	RCRA
Title Description:	Permit Renewal - for Units Contain1, and Tankstr1
Due Date:	Not reported
Comments:	Not reported
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description:	Renewal - No Changes - PUBLIC COMMENT (END)
Actual Date:	12/22/2006

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating

SAFETY-KLEEN CORP (Continued) **1000224427**

Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL (EXPIRES)
Actual Date: 06/23/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - DRAFT PERMIT RENEWAL
Actual Date: 11/07/2006

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1994-09-17 00:00:00
Type: RCRA
Title Description: Revised initial permit
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - PUBLIC COMMENT (END)
Actual Date: 06/13/1994

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating

SAFETY-KLEEN CORP (Continued) **1000224427**

Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Mod Class 1* - Prior Approval Required
Permit Being Renewed: Not reported
Permit Being Modified: Renewal - No Changes
Final Date: 2017-12-09 00:00:00
Type: RCRA
Title Description: RCRA Modification to Closure Plan
Due Date: Not reported
Comments: Class 1* Permit MOD public notice from the facility
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Mod Class 1* - Prior Approval Required - PUBLIC NOTICE TO MAILING LIST BY PERMITTEE
Actual Date: 11/06/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1993-01-05 00:00:00
Type: RCRA
Title Description: Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 10/03/1990

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL (EFFECTIVE)
Actual Date: 06/23/2007

EPA ID: CAT000613927

SAFETY-KLEEN CORP (Continued) **1000224427**

Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Status:	CLOSED
Activity Type:	New Operating Permit
Permit Being Renewed:	Not reported
Permit Being Modified:	Not reported
Final Date:	1993-01-05 00:00:00
Type:	RCRA
Title Description:	Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date:	Not reported
Comments:	Not reported
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date:	01/05/1993

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Status:	CLOSED
Activity Type:	Renewal - No Changes
Permit Being Renewed:	Renewal - No Changes
Permit Being Modified:	Not reported
Final Date:	2017-06-27 00:00:00
Type:	RCRA
Title Description:	Permit Renewal - Withdrawn
Due Date:	Not reported
Comments:	Preapplication meeting and site visit - By Hiral Doshi and Michael Choe
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	Renewal - No Changes - DTSC MEETING WITH APPLICANT
Actual Date:	06/30/2016

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Status:	CLOSED
Activity Type:	New Operating Permit
Permit Being Renewed:	Not reported
Permit Being Modified:	Not reported
Final Date:	1993-01-05 00:00:00
Type:	RCRA
Title Description:	Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date:	Not reported
Comments:	Not reported
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	New Operating Permit - FINAL PERMIT (EXPIRES)
Actual Date:	01/05/2003

SAFETY-KLEEN CORP (Continued) **1000224427**

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Renewal - No Changes
Permit Being Modified: Not reported
Final Date: 2017-06-27 00:00:00
Type: RCRA
Title Description: Permit Renewal - Withdrawn
Due Date: Not reported
Comments: Application dated 9/28/2016
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Renewal - No Changes - APPLICATION PART B RECEIVED
Actual Date: 10/05/2016

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Mod Class 1* - Prior Approval Required
Permit Being Renewed: Not reported
Permit Being Modified: Renewal - No Changes
Final Date: 2017-12-09 00:00:00
Type: RCRA
Title Description: RCRA Modification to Closure Plan
Due Date: Not reported
Comments: Class 1* Permit MOD public notice to newspaper
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Mod Class 1* - Prior Approval Required - PUBLIC NOTICE TO NEWSPAPER BY PERMITTEE
Actual Date: 12/09/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1994-09-17 00:00:00
Type: RCRA
Title Description: Revised initial permit
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - FINAL PERMIT (EXPIRES)
Actual Date: 09/14/2004

SAFETY-KLEEN CORP (Continued) **1000224427**

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Renewal - No Changes
Permit Being Modified: Not reported
Final Date: 2017-06-27 00:00:00
Type: RCRA
Title Description: Permit Renewal - Withdrawn
Due Date: 12/23/2016
Comments: Application dated 9/28/2016
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Renewal - No Changes - APPLICATION PART A RECEIVED
Actual Date: 10/05/2016

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Renewal - No Changes
Permit Being Modified: Not reported
Final Date: 2017-06-27 00:00:00
Type: RCRA
Title Description: Permit Renewal - Withdrawn
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL - WITHDRAWAL REQUEST ACKNOWLEDGED
Actual Date: 06/27/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Renewal - No Changes
Permit Being Modified: Not reported
Final Date: 2017-06-27 00:00:00
Type: RCRA
Title Description: Permit Renewal - Withdrawn
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL - WITHDRAWAL REQUEST RECEIVED

SAFETY-KLEEN CORP (Continued) **1000224427**

Actual Date: 05/23/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1994-09-17 00:00:00
Type: RCRA
Title Description: Revised initial permit
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)
Actual Date: 04/29/1994

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1993-01-05 00:00:00
Type: RCRA
Title Description: Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - PERMIT APPEALED - FINAL DECISION
Actual Date: 09/17/1994

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1993-01-05 00:00:00
Type: RCRA
Title Description: Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - FINAL PERMIT

SAFETY-KLEEN CORP (Continued) **1000224427**

Actual Date: 01/05/1993

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - RESPONSE TO 2ND NOD RECEIVED
Actual Date: 06/23/2006

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - CALL-IN LETTER ISSUED
Actual Date: 06/17/2004

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1993-01-05 00:00:00
Type: RCRA
Title Description: Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - APPLICATION PART B RECEIVED

SAFETY-KLEEN CORP (Continued) **1000224427**

Actual Date: 04/30/1985

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Mod Class 1* - Prior Approval Required
Permit Being Renewed: Not reported
Permit Being Modified: Renewal - No Changes
Final Date: 2017-12-09 00:00:00
Type: RCRA
Title Description: RCRA Modification to Closure Plan
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Mod Class 1* - Prior Approval Required - FINAL PERMIT MODIFICATION
Actual Date: 12/09/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL
Actual Date: 05/23/2007

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Mod Class 1* - Prior Approval Required
Permit Being Renewed: Not reported
Permit Being Modified: Renewal - No Changes
Final Date: 2017-12-09 00:00:00
Type: RCRA
Title Description: RCRA Modification to Closure Plan
Due Date: Not reported
Comments: Class 1* MOD Notice of Exemption
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Mod Class 1* - Prior Approval Required - CEQA DETERMINATION

SAFETY-KLEEN CORP (Continued) **1000224427**

Actual Date: 12/05/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - PUBLIC COMMENT (BEGIN)
Actual Date: 11/07/2006

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1993-01-05 00:00:00
Type: RCRA
Title Description: Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - FINAL PART A & PART B RECEIVED
Actual Date: 04/01/1992

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - 2ND NOTICE OF DEFICIENCY ISSUED

SAFETY-KLEEN CORP (Continued) **1000224427**

Actual Date: 01/10/2006

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Mod Class 1* - Prior Approval Required
Permit Being Renewed: Not reported
Permit Being Modified: Renewal - No Changes
Final Date: 2017-12-09 00:00:00
Type: RCRA
Title Description: RCRA Modification to Closure Plan
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Mod Class 1* - Prior Approval Required - ACKNOWLEDGEMENT OF PERMIT MOD LETTER
Actual Date: 09/25/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1993-01-05 00:00:00
Type: RCRA
Title Description: Permit1 - Initial permit - Units Contain1, Tankstr1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 09/07/1990

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Renewal - No Changes
Permit Being Modified: Not reported
Final Date: 2017-06-27 00:00:00
Type: RCRA
Title Description: Permit Renewal - Withdrawn
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)

SAFETY-KLEEN CORP (Continued) **1000224427**

Event Description: Renewal - No Changes - CALL-IN LETTER ISSUED
Actual Date: 12/02/2015

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: Renewal - No Changes
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 2007-05-23 00:00:00
Type: RCRA
Title Description: Permit Renewal - for Units Contain1, and Tankstr1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit)
Event Description: Renewal - No Changes - FINAL PART A & PART B RECEIVED
Actual Date: 06/29/2006

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1994-09-17 00:00:00
Type: RCRA
Title Description: Revised initial permit
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date: 09/17/1994

Closure:
EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Size: Small Storage
Facility Status: CLOSED
Activity Type: Closure Final
Final Date: Not reported
Type: RCRA
Title Description: CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date: Not reported
Comments: Notice of Exemption
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)

SAFETY-KLEEN CORP (Continued) **1000224427**

Event Description: Closure Final - DRAFT CEQA
Actual Date: 12/05/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Size: Small Storage
Facility Status: CLOSED
Activity Type: Closure Final
Final Date: Not reported
Type: RCRA
Title Description: CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date: Not reported
Comments: Received Closure Certification Report
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date: 12/06/2019

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Size: Small Storage
Facility Status: CLOSED
Activity Type: Closure Final
Final Date: Not reported
Type: RCRA
Title Description: CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date: Not reported
Comments: Closure Plan received via email
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Closure Final - CLOSURE PLAN RECEIVED
Actual Date: 07/12/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Size: Small Storage
Facility Status: CLOSED
Activity Type: Closure Final
Final Date: Not reported
Type: RCRA
Title Description: CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date: Not reported
Comments: Responded to the closure notification.
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Closure Final - CLOSURE PLAN REQUESTED
Actual Date: 06/27/2017

SAFETY-KLEEN CORP (Continued) **1000224427**

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Size: Small Storage
Facility Status: CLOSED
Activity Type: Closure Final
Final Date: Not reported
Type: RCRA
Title Description: CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date: 12/31/2020
Comments: Closure Verification Letter issued
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date: 01/08/2021

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Size: Small Storage
Facility Status: CLOSED
Activity Type: Closure Final
Final Date: Not reported
Type: RCRA
Title Description: CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date: Not reported
Comments: Received via email
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Closure Final - CLOSURE NOTICE RECEIVED
Actual Date: 05/23/2017

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager: PARISA KHOSRAVIANI
Project Manager Lead: PARISA KHOSRAVIANI
Supervisor: WILLIAM HEUNG
Facility Size: Small Storage
Facility Status: CLOSED
Activity Type: Closure Final
Final Date: Not reported
Type: RCRA
Title Description: CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date: Not reported
Comments: SK Response, Closure Plan Addendum
Unit Names: CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description: Closure Final - RESPONSE TO 2ND NOD RECEIVED
Actual Date: 08/07/2018

EPA ID: CAT000613927
Facility Type: Historical - Non-Operating
Facility Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER

SAFETY-KLEEN CORP (Continued) **1000224427**

Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Size:	Small Storage
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported
Type:	RCRA
Title Description:	CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date:	Not reported
Comments:	DTSC letter regarding review of closure plan
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	Closure Final - 1ST NOTICE OF DEFICIENCY ISSUED
Actual Date:	12/14/2017

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Size:	Small Storage
Facility Status:	CLOSED
Activity Type:	Closure Administrative
Final Date:	Not reported
Type:	RCRA
Title Description:	Treatment Tank -Admin closure
Due Date:	01/20/2016
Comments:	Admin closure
Unit Names:	TANKTRT1 (GPRA Unit)
Event Description:	Closure Administrative - ISSUE CLOSURE VERIFICATION
Actual Date:	01/20/2016

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Size:	Small Storage
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported
Type:	RCRA
Title Description:	CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date:	Not reported
Comments:	SK Response to DTSC letter
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	Closure Final - RESPONSE TO 1ST NOD RECEIVED
Actual Date:	02/28/2018

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG

SAFETY-KLEEN CORP (Continued) **1000224427**

Facility Size:	Small Storage
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported
Type:	RCRA
Title Description:	CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date:	Not reported
Comments:	DTSC letter & GSU memo
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	Closure Final - 2ND NOTICE OF DEFICIENCY ISSUED
Actual Date:	05/07/2018

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Facility Size:	Small Storage
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported
Type:	RCRA
Title Description:	CLOSURE FINAL - CLEAN CLOSURE ACCEPTABLE
Due Date:	Not reported
Comments:	Not reported
Unit Names:	CONTAIN1 (GPRA Unit), TANKSTR1 (GPRA Unit), TANKTRT1 (GPRA Unit)
Event Description:	Closure Final - PUBLIC COMMENT (END)
Actual Date:	12/12/2017

Alias:

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Facility Status:	CLOSED
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Alias Type:	FRS
Alias:	110000786007

EPA ID:	CAT000613927
Facility Type:	Historical - Non-Operating
Facility Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Facility Status:	CLOSED
Project Manager:	PARISA KHOSRAVIANI
Project Manager Lead:	PARISA KHOSRAVIANI
Supervisor:	WILLIAM HEUNG
Alias Type:	Project Code (Site Code)
Alias:	400247

NPDES:

Name:	SAFETY-KLLEEN
Address:	7979 PALM AVE.
City,State,Zip:	HIGHLAND, CA 92346

SAFETY-KLEEN CORP (Continued) **1000224427**

Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	8 36NNA000251
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	No Action Required
Status Date:	03/14/2022
Operator Name:	Safety Kleen
Operator Address:	7979 Palm Ave
Operator City:	Highland
Operator State:	California
Operator Zip:	92346

Name:	SAFETY KLEEN CORP
Address:	7979 PALM AVE
City,State,Zip:	HIGHLAND, CA 92346
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	8 36I002049
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	11/22/2017
Operator Name:	Safety Kleen
Operator Address:	7979 Palm Ave
Operator City:	Highland
Operator State:	California
Operator Zip:	92346

SAFETY-KLEEN CORP (Continued) **1000224427**

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	8
Regulatory Measure ID:	213124
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	8 36I002049
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	03/30/1992
Status:	Active
Status Date:	03/30/1992
Place Size:	1.5
Place Size Unit:	Acres
Contact:	Bryan Vaughn
Contact Title:	Branch Manager
Contact Phone:	909-862-8300
Contact Phone Ext:	Not reported
Contact Email:	bryan.vaughn@safety-kleen.com
Operator Name:	Safety Kleen
Operator Address:	7979 Palm Ave
Operator City:	Highland
Operator State:	California
Operator Zip:	92346
Operator Contact:	Bryan Vaughn
Operator Contact Title:	Branch Manager
Operator Contact Phone:	909-862-8300
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	bryan.vaughn@safety-kleen.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	951-906-8682
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported

SAFETY-KLEEN CORP (Continued) **1000224427**

Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Santa Ana River
Certifier:	Nahid Toossi
Certifier Title:	EHS Manager
Certification Date:	23-JUN-15
Primary Sic:	4953-Refuse Systems
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000001
Status:	Terminated
Agency Number:	0
Region:	8
Regulatory Measure ID:	213124
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	8 36I002049
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/30/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	10/19/2017
Discharge Name:	Safety Kleen
Discharge Address:	7979 Palm Ave
Discharge City:	Highland
Discharge State:	California
Discharge Zip:	92346
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported

SAFETY-KLEEN CORP (Continued) **1000224427**

Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

WDS:

Name:	HIGHLAND FACILITY
Address:	7979 PALM AVE
City:	HIGHLAND
Facility ID:	Santa Ana River 36I002049
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	9098622856

SAFETY-KLEEN CORP (Continued) **1000224427**

Facility Contact:	KIMBERLY COLBERT
Agency Name:	SAFETYKLEEN CORP
Agency Address:	7979 Palm Ave
Agency City,St,Zip:	Highland 923464204
Agency Contact:	KIMBERLY COLBERT
Agency Telephone:	9098622856
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Name:	SAFETY KLEEN CORP
Address:	7979 PALM AVE
City,State,Zip:	HIGHLAND, CA 92346
Agency:	Safety Kleen
Agency Address:	7979 Palm Ave, Highland, CA 92346
Place/Project Type:	Industrial - Local Trucking Without Storage
SIC/NAICS:	4212
Region:	8
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	8 36I002049
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	03/30/1992
Termination Date:	10/19/2017
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0

SAFETY-KLEEN CORP (Continued) **1000224427**

Violations within 5 years: 0
Latitude: 34.10861
Longitude: -117.20878

CERS:
Name: SAFETY-KLEEN SYSTEMS, INC
Address: 7979 PALM AVE UNIT E
City,State,Zip: HIGHLAND, CA 92346
Site ID: 402305
CERS ID: 10145863
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-23-2014
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 07/23/2014. Failure to submit a signed Designated UST Operator Statement (23 CCR 2715(a)) UST DESIGNATED OPERATOR STATEMENT SUBMITTED ON LINE IN CERS IS INCOMPLETE MISSING SIGNATURES. UPDATE UST DESIGNATED OPERATOR STATEMENT ADDRESSING THE DEFICIENCY NOTED AND SUBMIT TO THIS DEPARTMENT ON LINE IN CERS WITHIN 30 DAYS.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-23-2014
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes: Returned to compliance on 07/23/2014. EVIDENCE OF FINANCIAL RESPONSIBLITY FOR UST SYSTEM UNDER GREENWICH INSURANCE EXPIRED 9/1/13. UPDATE UST EVIDENCE OF FINANCIAL RESPONSIBLITY AND SUBMIT TO THIS DEPARTMENT ON LINE IN CERS WITHIN 30 DAYS.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 08-30-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 09/19/2018. Observed (12) 55 gallon drums containing oil contaminated solids and oily water. The most recent hazardous materials inventory submitted on 07/14/2018 disclosed (2) 55 gallon drums containing oil contaminated solids, and (2) 55 gallon drums of oily water. Update the quantity of liquid petroleum products

SAFETY-KLEEN CORP (Continued) **1000224427**

stored on site from 9,500 gallons to ~11,000 gallons. CORRECTIVE ACTION: Submit an accurate and complete hazardous materials inventory into the California Environmental Reporting System (CERS).
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-23-2013
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)
Violation Description: Failure to operate the UST system to prevent spills and/or overfills.
Violation Notes: Returned to compliance on 07/23/2013. THE EXTERNAL ENUNCIATOR CONNECTED TO THE ATGS DID NOT ALARM OR ENABLE THE FLASHING LIGHT WHEN TESTED. THE SERVICE TECHNICIAN REPLACED A FUSE IN THE VEEDER ROOT MONITOR AND REPLACED THE LIGHT BULB AND FLASHER.IT WAS RETESTED AND ALARM AND FLASHING LIGHT ACTIVATED-VIOLATION CORRECTED.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-23-2013
Citation: 23 CCR 16 2638 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638
Violation Description: Failure to test leak detection equipment as required every 12 months (VPH, sensor, LLD, ATG, etc.) and/or submit monitoring system certification to the CUPA within 30 days of completion of the test
Violation Notes: Returned to compliance on 07/23/2013. THE MONITORING CERTIFICATION WAS LAST DONE ON 7/19/12. UST SYSTEMS MUST BE CERTIFIED ANNUALLY.PLEASE PEFORM THE NEXT MONITORING CERTIFICATION WITHIN ONE YEAR.-VIOLATION CORRECTED.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 09-22-2015
Citation: HSC 6.7 25299 - California Health and Safety Code, Chapter 6.7, Section(s) 25299
Violation Description: Failure to comply with one or more of the operating permit conditions.
Violation Notes: Returned to compliance on 11/06/2015. VR208 SENSOR INSIDE THE CLEAN PRODUCT STP SUMP WAS OBSERVED NOT TO BE PLACED AT THE LOWEST POINT OF THE SUMP DURING THE PREVIOUS INSPECTION COMPLETED ON 7/21/2-015. POOLED LIQUIDS WAS OBSERVED INSIDE THE STP SUMP AND WHEN SENSOR WAS PLACED INTO THE POOLED LIQUID, SENSOR FUNCTIONED BY POSITIVE SHUT DOWN WITH AUDIBLE/VISUAL ALARMS. INVESTIGATE THE CAUSE OF THE SENSOR BEING RAISED FROM THE LOWEST POINT IN THE SUMP, AND SUBMIT INVESTIGATION REPORT ALONG WITH A WORK PLAN ON HOW FACILITY WILL MAINTAIN ALL SENSORS AT THE LOWEST POINT. SUBMIT INVESTIGATION REPORT AND WORKPLAN TO THIS DEPARTMENT WITHIN 30 DAYS. WILL BE ADDRESSED IN AEO PROCESS. 11/6/2015 ASAGUAN
Violation Division: San Bernardino County Fire Department
Violation Program: UST

SAFETY-KLEEN CORP (Continued) **1000224427**

Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-21-2016
Citation:	HSC 6.7 Multiple - California Health and Safety Code, Chapter 6.7, Section(s) Multiple
Violation Description:	UST Program - Administration/Documentation - General - Must include violation description, proper statute and regulation citation in the "comment" section.
Violation Notes:	Returned to compliance on 08/10/2016. Failure to have a written monitoring program with monitoring procedures and response plan (CHSC 25286(a)) OBSERVATIONS:(1) THE WASTE SOLVENT UST PIPING SHOWS AS BEING MONITORED BY "205, 208" SENSORS AND HAVING A MECHANICAL LINE LEAK DETECTOR, VMI LD2000. THE WASTE SOLVENT TANK IS NOT MONITORED BY THESE SENSORS ANYMORE AND IT DOES NOT HAVE A LINE LEAK DETECTOR.(2) THE SOLVENT TANK SHOWS AS HAVING A FILL TUBE SHUT-OFF VALVE, WHEN IT DOESN'T; SHOWS PIPING BEING MONITORED BY "205, 208" SENSORS, WHEN IT ISN'T; SHOWS THE LINE LEAK DETECTOR BEING A VMI LD2000, WHEN IT ISN'T. (3) THE UST MONITORING SITE PLAN IS MISSING THE GENERAL PIPING LAYOUT, THE SENSORS LISTED ARE NO LONGER BEING USED AND NEED TO BE UPDATED. COMPLIANCE REQUIREMENT: (1) THE WASTE OIL TANK PIPING SUMPS ARE MONITORED BY VR323 SENSORS AND IT DOES NOT HAVE A LINE LEAK DETECTOR. (2) THE SOLVENT TANK DOES NOT HAVE A FILL-TUBE SHUT-OFF VALVE. MARK "NO" ON THE INFORMATION PAGE; THE SOLVENT TANK SUMPS ARE BY VR323 [Truncated]
Violation Division:	San Bernardino County Fire Department
Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-23-2014
Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to submit, obtain approval, or maintain a complete/accurate response plan.
Violation Notes:	Returned to compliance on 07/23/2014. UST MONITORING PLAN SUBMITTED ON LINE IN CERS INCOMPLETE MISSING ALL SENSORS CONNECTED TO THE VEEDER ROOT MONITORING SYSTEM. UPDATE AND COMPLETE UST MONITORING PLAN AND SUBMIT ON LINE IN CERS WITHIN 30 DAYS.
Violation Division:	San Bernardino County Fire Department
Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-12-2018
Citation:	HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Description:	Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes:	Returned to compliance on 07/14/2018. OBSERVATION: The tank installation dates in CERS are not accurate. CORRECTIVE ACTION: Update tank installation dates to 12/04/1991 in CERS and re-submit UST documents within 30 days.
Violation Division:	San Bernardino County Fire Department

SAFETY-KLEEN CORP (Continued) **1000224427**

Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	09-22-2015
Citation:	HSC 6.7 25290.1(h), 25290.2(g), 25291(f), 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(h), 25290.2(g), 25291(f), 25292(e)
Violation Description:	Failure to install line leak detector.
Violation Notes:	Returned to compliance on 09/28/2015. MECHANICAL LINE LEAK DETECTOR IN THE CLEAN PRODUCT TANK FAILED WHEN TESTED.IMMEDIATELY REPLACE INOPERABLE LEAK DETECTOR AND SCHEDULE A WITNESSED RETEST WITH THIS DEPARTMENT WITHIN 10 DAYS.
Violation Division:	San Bernardino County Fire Department
Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-21-2016
Citation:	HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Description:	Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes:	Returned to compliance on 08/09/2016. OBSERVATIONS: THE CERTIFICATE WAS LAST SIGNED ON 11/4/2014. THE COVERAGE PERIOD IS LISTED AS 11/1/2014 TO 11/1/2015. COMPLIANCE REQUIREMENT: UPDATE THE CERTIFICATE AND MAINTAIN IN CERS. COMPLIANCE ACTIVITY -8/12/2016- NAHID TOOSSI SENT NOTIFICATION ON 8/9/2016 THAT THE UPDATES HAD BEEN MADE. CONFIRMED ON CERS. EGRIMES.
Violation Division:	San Bernardino County Fire Department
Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-21-2015
Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to submit, obtain approval, or maintain a complete/accurate response plan.
Violation Notes:	Returned to compliance on 08/20/2015. UST MONITORING PLAN SUBMITTED ON LINE IN CERS INCOMPLETE MISSING ALL SENSORS CONNECTED TO THE VEEDER ROOT MONITORING SYSTEM. UPDATE AND COMPLETE UST MONITORING PLAN AND SUBMIT ON LINE IN CERS WITHIN 30 DAYS. THIS WAS NOTED ON THE PREVIOUS INSPECTION REPORT DATED 7/23/2014 AND IS NOW A RECALCITRANT VIOLATION. THIS IS NOW A CLASS 2 VIOLATION.
Violation Division:	San Bernardino County Fire Department
Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-21-2015
Citation:	Un-Specified
Violation Description:	UST Program - Administration/Documentation - For use of Local

SAFETY-KLEEN CORP (Continued) **1000224427**

	Ordinance only
Violation Notes:	Returned to compliance on 08/20/2015. Failure to correct past UST violations within 30 days of receiving a UST inspection report (23CCR 2712(f)) VIOLATION #0315 AND #0312 ARE RECALCITRANT VIOLATIONS NOTED ON THE PREVIOUS INSPECTION REPORT DATED 7/23/2014 AND IS NOW A CLASS 2 VIOLATION.
Violation Division:	San Bernardino County Fire Department
Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-21-2015
Citation:	HSC 6.7 25290.1(h), 25290.2(g), 25291(f), 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(h), 25290.2(g), 25291(f), 25292(e)
Violation Description:	Failure to install line leak detector.
Violation Notes:	Returned to compliance on 09/28/2015. MECHANICAL LINE LEAK DETECTOR IN THE CLEAN PRODUCT TANK FAILED WHEN TESTED. IMMEDIATELY REPLACE INOPERABLE LEAK DETECTOR AND SCHEDULE A WITNESSED RETEST WITH THIS DEPARTMENT WITHIN 10 DAYS.
Violation Division:	San Bernardino County Fire Department
Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-23-2014
Citation:	HSC 6.7 25299 - California Health and Safety Code, Chapter 6.7, Section(s) 25299
Violation Description:	Failure to comply with one or more of the operating permit conditions.
Violation Notes:	Returned to compliance on 07/23/2014. VR208 SENSOR INSIDE CLEAN MPC FILL AND STP SUMP SENSORS WHICH INITIALLY FAILED. VR208 SENSOR INSIDE THE CLEAN MPC STP SUMP WAS REPAIRED AND VR208 SENSOR INSIDE CLEAN MPC FILL WAS REPLACED "LIKE FOR LIKE". BOTH SENSORS PASSED WHEN RETESTED.
Violation Division:	San Bernardino County Fire Department
Violation Program:	UST
Violation Source:	CERS,
Site ID:	402305
Site Name:	Safety-Kleen Systems, Inc
Violation Date:	07-23-2013
Citation:	23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description:	Failure of the overfill prevention system to meet one of the following requirements: 1. Alert the transfer operator when the tank is 90 percent full by restricting the flow into the tank or triggering an audible and visual alarm; or 2. Restrict delivery of flow to the tank at least 30 minutes before the tank overfills, provided the restriction occurs when the tank is filled to no more than 95 percent of capacity; and activate an audible alarm at least five minutes before the tank overfills; or 3. Provide positive shut-off of flow to the tank when the tank is filled to no more than 95 percent of capacity; or 4. Provide positive shut-off of flow to the tank so that none of the fittings located on the top of the tank are exposed to product due to overfilling.
Violation Notes:	Returned to compliance on 07/23/2013. THE EXTERNAL ENUNCIATOR

SAFETY-KLEEN CORP (Continued) **1000224427**

CONNECTED TO THE ATGS DID NOT ALARM OR ENABLE THE FLASHING LIGHT WHEN TESTED. THE SERVICE TECHNICIAN REPLACED A FUSE IN THE VEEDER ROOT MONITOR AND REPLACED THE LIGHT BULB AND FLASHER. IT WAS RETESTED-ALARM AND FLASHING LIGHT ACTIVATED. VIOLATION CORRECTED.

Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-21-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 08/20/2015. Failure to submit a signed Designated UST Operator Statement (23 CCR 2715(a)) UST DESIGNATED OPERATOR STATEMENT SUBMITTED ON LINE IN CERS WAS INCOMPLETE MISSING SIGNATURE. PER FACILITY REPRESENTATIVE, BRYAN VAUGHN, THERE IS A SIGNED COPY. OBTAIN SIGNED UST DESIGNATED OPERATOR STATEMENT AND SUBMIT ON LINE IN CERS WITHIN 30 DAYS. THIS IS A RECALCITRANT VIOLATION NOTED ON THE PREVIOUS INSPECTION REPORT DATED 7/23/2014.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-23-2013
Citation: 23 CCR 16 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2666
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 07/23/2013. THE EXTERNAL ENUNCIATOR CONNECTED TO THE ATGS DID NOT ENABLE THE ALARM OR FLASHING LIGHT WHEN TESTED. THE SERVICE TECHNICIAN REPLACED A FUSE IN THE VEEDER ROOT MONITOR AND REPLACED THE LIGHT BULB AND FLASHER.IT WAS RETESTED-ALARM AND FLASHING LIGHT ACTIVATED-VIOLATION CORRECTED.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-21-2015
Citation: HSC 6.7 25299 - California Health and Safety Code, Chapter 6.7, Section(s) 25299
Violation Description: Failure to comply with one or more of the operating permit conditions.
Violation Notes: Returned to compliance on 11/06/2015. VR208 SENSOR INSIDE THE CLEAN PRODUCT STP SUMP WAS OBSERVED NOT TO BE PLACED AT THE LOWEST POINT OF THE SUMP. POOLED LIQUIDS WAS OBSERVED INSIDE THE STP SUMP AND WHEN SENSOR WAS PLACED INTO THE POOLED LIQUID, SENSOR FUNCTIONED BY POSITIVE SHUT DOWN WITH AUDIBLE/VISUAL ALARMS. SPOKE WITH EMPLOYEES THAT MAINTAIN THE SUMPS, LOUS CONTRERAS AND FERNANDO PRECIADO, WHO BOTH CONFIRM THAT THEY MAINTAIN THE SUMPS BUT UNAWARE OF THE RAISED SENSOR OBSERVED INSIDE THE STP SUMP MENTIONED ABOVE. INVESTIGATE THE CAUSE OF THE SENSOR BEING RAISED FROM THE LOWEST POINT IN THE SUMP, AND SUBMIT INVESTIGATION REPORT ALONG WITH A WORK PLAN ON HOW FACILITY

SAFETY-KLEEN CORP (Continued) **1000224427**

WILL MAINTAIN ALL SENSORS AT THE LOWEST POINT. SUBMIT INVESTIGATION REPORT AND WORKPLAN TO THIS DEPARTMENT WITHIN 30 DAYS.

---------- VR 420 ANNULAR SENSOR FOR THE WASTE DOUBLE WALLED WAS [Truncated]

Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-21-2016
Citation: 23 CCR 6.7 25284, 25286 - California Code of Regulations, Title 23, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 08/09/2016. OBSERVATIONS: THE BOE# 4402781, LISTED ON THE PERMIT, WAS NOT VALID WHEN CHECKED. COMPLIANCE REQUIREMENT: ENSURE THE CORRECT NUMBER HAS BEEN ENTERED, THEN CHECK IF IT IS VALID WITH THE BOARD OF EQUALIZATION. COMPLIANCE ACTIVITY -8/12/2016- NOTIFICATION SENT VIA EMAIL, ON 8/9/2016, FROM NAHID TOOSI, STATING THE BOE# CORRECTION. CONFIRMED ON CERS. EGRIMES.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-12-2018
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes: Returned to compliance on 07/14/2018. OBSERVATION: The Certificate of Financial Responsibility (CFR) submitted via CERS is dated 11/30/2016, which is expired. CORRECTIVE ACTION: Submit a new CFR to this agency via CERS within 30 days.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Violation Date: 07-21-2015
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description: Failure of the overfill prevention system to meet one of the following requirements: 1. Alert the transfer operator when the tank is 90 percent full by restricting the flow into the tank or triggering an audible and visual alarm; or 2. Restrict delivery of flow to the tank at least 30 minutes before the tank overfills, provided the restriction occurs when the tank is filled to no more than 95 percent of capacity; and activate an audible alarm at least five minutes before the tank overfills; or 3. Provide positive shut-off of flow to the tank when the tank is filled to no more than 95 percent of capacity; or 4. Provide positive shut-off of flow to the tank so that

SAFETY-KLEEN CORP (Continued) **1000224427**

none of the fittings located on the top of the tank are exposed to product due to overfilling.

Violation Notes: Returned to compliance on 09/21/2015. THE VISUAL ALARM ON THE EXTERNAL OVERFILL ANNUNCIATOR WAS INOPERABLE DUE TO A BURNT OUT LIGHT BULB. THE LIGHT WAS REPLACED BY THE UST TECHNICIAN AND WITNESSED OPERABLE AT TIME OF INSPECTION.
Violation Division: San Bernardino County Fire Department
Violation Program: UST
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-12-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-21-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Safety-Kleen Annual UST and Monitoring System Cert
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-23-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: SAFETY KLEEN 7979 PALMS AVE HIGHLAND
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-09-2021
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-30-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection

SAFETY-KLEEN CORP (Continued) **1000224427**

Eval Date: 05-19-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: SAFETY KLEEN INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 07-21-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SECONDARY CONTAINMENT TEST FOLLOWING UST MONITORING SYSTEM CERTIFICATION. SEE C16 REPORT FOR NARRATIVE AND REPORT INFORMATION.
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-21-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: UST ANNUAL INSPECTION WITH MONITORING SYSTEM CERTIFICATION
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-09-2021
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 09-22-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: RE-INSPECTION TO FOLLOW UP ON COMPLIANCE NOTED ON THE PREVIOUS INSPECTION REPORT DATED 7/21/2015
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 09-28-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: REINSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-19-2015

SAFETY-KLEEN CORP (Continued) **1000224427**

Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: SAFETY KLEEN INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-17-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: UST ANNUAL INSPECTION WITH MONITORING SYSTEM CERTIFICAITON.
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-23-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ANNUAL INSPECTION WITH UST MONITORING SYSTEM CERTIFICATION FOLLOWING COLD START UNDER PLAN CHECK SR0044224
Eval Division: San Bernardino County Fire Department
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-30-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-23-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-09-2021
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-30-2018
Violations Found: No
Eval Type: Routine done by local agency

SAFETY-KLEEN CORP (Continued) **1000224427**

Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS,

Enforcement Action:
Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Site Address: 7979 PALM AVE UNIT E
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 07-21-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: UST
Enf Action Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Site Address: 7979 PALM AVE UNIT E
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 07-21-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: UST
Enf Action Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Site Address: 7979 PALM AVE UNIT E
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 07-23-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: UST
Enf Action Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Site Address: 7979 PALM AVE UNIT E
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 07-23-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: UST
Enf Action Source: CERS,

SAFETY-KLEEN CORP (Continued) **1000224427**

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Site Address: 7979 PALM AVE UNIT E
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 08-24-2015
Enf Action Type: AEO - Unified Program
Enf Action Description: Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes: Fines/Penalties Assessed: $15,832.00. SEPs Value: $12,712.00. Failure to properly monitor the UST Failure to install a line lead detector Tampering with the leak detection system.
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: UST
Enf Action Source: CERS,

Site ID: 402305
Site Name: Safety-Kleen Systems, Inc
Site Address: 7979 PALM AVE UNIT E
Site City: HIGHLAND
Site Zip: 92346
Enf Action Date: 09-22-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: UST
Enf Action Source: CERS,

Affiliation:
Affiliation Type Desc: Operator
Entity Name: Safety-Kleen Systems, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (909) 742-7423,

Affiliation Type Desc: Document Preparer
Entity Name: Bhushansingh Rathor
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: ,

Affiliation Type Desc: Legal Owner
Entity Name: Safety-Kleen Systems, Inc.
Entity Title: Not reported
Affiliation Address: 42 Longwater Drive
Affiliation City: Norwell
Affiliation State: MA
Affiliation Country: United States
Affiliation Zip: 02061

SAFETY-KLEEN CORP (Continued) **1000224427**

Affiliation Phone:	(781) 792-5000,
Affiliation Type Desc:	Parent Corporation
Entity Name:	Safety-Kleen Systems, Inc
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,
Affiliation Type Desc:	CUPA District
Entity Name:	San Bernardino County Fire
Entity Title:	Not reported
Affiliation Address:	620 South E Street
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92415-0153
Affiliation Phone:	(909) 386-8401,
Affiliation Type Desc:	Environmental Contact
Entity Name:	Nahid Toossi
Entity Title:	Not reported
Affiliation Address:	2120 South Yale Street
Affiliation City:	Santa Ana
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92704
Affiliation Phone:	,
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	7979 Palm Ave Unit E
Affiliation City:	Highland
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92346
Affiliation Phone:	,
Affiliation Type Desc:	Identification Signer
Entity Name:	Bhushansingh Rathor
Entity Title:	Environmental Compliance - Associate
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

J40 **SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER** **CA ENVIROSTOR** **S103672465**
East **7979 PALM AVE #E** **N/A**
1/2-1 **HIGHLAND, CA 92346**
0.572 mi.
3021 ft. **Site 2 of 3 in cluster J**

Relative:
Higher

Actual:
1199 ft.

ENVIROSTOR:

Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address:	7979 PALM AVE #E
City,State,Zip:	HIGHLAND, CA 923460000
Facility ID:	80001784
Status:	No Further Action
Status Date:	09/09/2010
Site Code:	400247
Site Type:	Corrective Action
Site Type Detailed:	Corrective Action
Acres:	1.8
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	WM
Program Manager:	Not reported
Supervisor:	* John Geroch
Division Branch:	Cleanup Cypress
Assembly:	40
Senate:	23
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.10682
Longitude:	-117.2082
APN:	NONE SPECIFIED
Past Use:	DISTRIBUTOR - CHEMICAL
Potential COC:	TPH-Stoddard Solvent
Confirmed COC:	TPH-Stoddard Solvent
Potential Description:	SOIL
Alias Name:	CAT000613927
Alias Type:	EPA Identification Number
Alias Name:	110000786007
Alias Type:	EPA (FRS #)
Alias Name:	400247
Alias Type:	Project Code (Site Code)
Alias Name:	80001784
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	AREA ENCOMPASSING PREVIOUS U S TS
Completed Document Type:	* Historical Operating Permit Authority
Completed Date:	07/29/1994
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Historical Operating Permit Authority
Completed Date:	02/16/1993
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **S103672465**

Completed Document Type: * Historical Operating Permit Authority
Completed Date: 06/30/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Groundwater Migration Controlled
Completed Date: 06/09/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Human Exposure Controlled
Completed Date: 06/09/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 02/09/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 10/24/1996
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 03/17/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 03/15/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 07/25/1991
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Construction Complete
Completed Date: 06/09/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 06/09/1995
Comments: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **S103672465**

Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	AREA ENCOMPASSING PREVIOUS U S TS
Completed Document Type:	RFI Report
Completed Date:	09/12/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	RFI Workplan
Completed Date:	03/29/1996
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

J41 **SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER** **SEMS-ARCHIVE** **1015732922**
East **7979 PALM AVENUE** **CORRACTS** **CAT000613927**
1/2-1 **HIGHLAND, CA 92346** **RCRA-TSDF**
0.572 mi. **RCRA-LQG**
3021 ft. **Site 3 of 3 in cluster J** **US FIN ASSUR**
2020 COR ACTION
Relative: Higher **NJ MANIFEST**

Actual: 1199 ft.

SEMS Archive:

Site ID:	0900292
EPA ID:	CAT000613927
Name:	SAFETY- KLEEN CORP 7-172-01
Address:	7979 PALM AVE UNIT E
Address 2:	Not reported
City,State,Zip:	HIGHLAND, CA 92346
Cong District:	35
FIPS Code:	06071
FF:	N
NPL:	Not on the NPL
Non NPL Status:	Deferred to RCRA (Subtitle C)

SEMS Archive Detail:

Region:	09
Site ID:	0900292
EPA ID:	CAT000613927
Site Name:	SAFETY- KLEEN CORP 7-172-01
NPL:	N
FF:	N
OU:	00
Action Code:	VS
Action Name:	ARCH SITE
SEQ:	1
Start Date:	Not reported
Finish Date:	1996-01-23 05:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf In-Hse

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Region: 09
Site ID: 0900292
EPA ID: CAT000613927
Site Name: SAFETY- KLEEN CORP 7-172-01
NPL: N
FF: N
OU: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Date: Not reported
Finish Date: 1991-09-06 04:00:00
Qual: D
Current Action Lead: EPA Perf

Region: 09
Site ID: 0900292
EPA ID: CAT000613927
Site Name: SAFETY- KLEEN CORP 7-172-01
NPL: N
FF: N
OU: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Date: 1991-01-01 05:00:00
Finish Date: 1991-01-01 05:00:00
Qual: Not reported
Current Action Lead: EPA Perf

CORRACTS:
Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: ENTIRE FACILITY
Corrective Action: RFA COMPLETED
Actual Date: 19920315
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: ENTIRE FACILITY
Corrective Action: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NECESSARY
Actual Date: 19920315
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: ENTIRE FACILITY
Corrective Action: INVESTIGATION WORKPLAN APPROVED
Actual Date: 19960329
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: AREA ENCOMPASSING PREVIOUS U S TS
Corrective Action: INVESTIGATION COMPLETE
Actual Date: 20000912
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: ENTIRE FACILITY
Corrective Action: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION
Actual Date: 19930317
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: ENTIRE FACILITY
Corrective Action: INVESTIGATION COMPLETE
Actual Date: 19950609
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: ENTIRE FACILITY
Corrective Action: REMEDY CONSTRUCTION-REMEDY CONSTRUCTED
Actual Date: 20100609
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: ENTIRE FACILITY
Corrective Action: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Actual Date: 20100609
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address: 7979 PALM AVENUE
Address 2: Not reported
EPA ID: CAT000613927
Area Name: ENTIRE FACILITY
Corrective Action: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Actual Date: 20100609
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

RCRA-LQG:
Date Form Received by Agency: 20200203
Handler Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Handler Address: 7979 PALM AVENUE
Handler City,State,Zip: HIGHLAND, CA 92346-0000
EPA ID: CAT000613927
Contact Name: NAHID TOOSSI
Contact Address: SOUTH YALE STREET
Contact City,State,Zip: SANTA ANA, CA 92704
Contact Telephone: 949-981-5099
Contact Fax: Not reported
Contact Email: NAHID.TOOSSI@SAFETY-KLEEN.COM
Contact Title: DIRECTOR COMPLIANCE
EPA Region: 09
Land Type: Private
Federal Waste Generator Description: Large Quantity Generator
Non-Notifier: Not reported
Biennial Report Cycle: 2019
Accessibility: Not reported
Active Site Indicator: Handler Activities, Corrective Action Activities
State District Owner: Not reported
State District: Not reported
Mailing Address: PALM AVENUE
Mailing City,State,Zip: HIGHLAND, CA 92346
Owner Name: SAFETY-KLEEN SYSTEMS INC.
Owner Type: Private
Operator Name: SAFETY-KLEEN SYSTEMS INC.
Operator Type: Private
Short-Term Generator Activity: No

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	Yes
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:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	Yes
Treatment Storage and Disposal Type:	Storage, Treatment
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Accomplished
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Storage, Treatment
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	Yes
Corrective Action Workload Universe:	Yes
Subject to Corrective Action Universe:	Yes
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:	Yes
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	Yes
Groundwater Controls Indicator:	Yes
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:	20201014
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

Biennial: List of Years

Year:	2019

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Click Here for Biennial Reporting System Data:
Year: 2017

Click Here for Biennial Reporting System Data:
Year: 2015

Click Here for Biennial Reporting System Data:
Year: 2013

Click Here for Biennial Reporting System Data:
Year: 2011

Click Here for Biennial Reporting System Data:
Year: 2009

Click Here for Biennial Reporting System Data:
Year: 2007

Click Here for Biennial Reporting System Data:
Year: 2005

Click Here for Biennial Reporting System Data:
Year: 2003

Click Here for Biennial Reporting System Data:
Year: 2001

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:
Waste Code: D000
Waste Description: Not Defined

Waste Code: D001
Waste Description: IGNITABLE WASTE

Waste Code: D004
Waste Description: ARSENIC

Waste Code: D005
Waste Description: BARIUM

Waste Code: D006
Waste Description: CADMIUM

Waste Code: D007
Waste Description: CHROMIUM

Waste Code: D008
Waste Description: LEAD

Waste Code: D009
Waste Description: MERCURY

Waste Code: D010
Waste Description: SELENIUM

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Waste Code: D011
Waste Description: SILVER

Waste Code: D018
Waste Description: BENZENE

Waste Code: D019
Waste Description: CARBON TETRACHLORIDE

Waste Code: D021
Waste Description: CHLOROBENZENE

Waste Code: D022
Waste Description: CHLOROFORM

Waste Code: D023
Waste Description: O-CRESOL

Waste Code: D024
Waste Description: M-CRESOL

Waste Code: D025
Waste Description: P-CRESOL

Waste Code: D026
Waste Description: CRESOL

Waste Code: D027
Waste Description: 1,4-DICHLOROBENZENE

Waste Code: D028
Waste Description: 1,2-DICHLOROETHANE

Waste Code: D029
Waste Description: 1,1-DICHLOROETHYLENE

Waste Code: D030
Waste Description: 2,4-DINITROTOLUENE

Waste Code: D032
Waste Description: HEXACHLOROBENZENE

Waste Code: D033
Waste Description: HEXACHLOROBUTADIENE

Waste Code: D034
Waste Description: HEXACHLOROETHANE

Waste Code: D035
Waste Description: METHYL ETHYL KETONE

Waste Code: D036
Waste Description: NITROBENZENE

Waste Code: D037
Waste Description: PENTACHLOROPHENOL

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Waste Code: D038
Waste Description: PYRIDINE

Waste Code: D039
Waste Description: TETRACHLOROETHYLENE

Waste Code: D040
Waste Description: TRICHLORETHYLENE

Waste Code: D041
Waste Description: 2,4,5-TRICHLOROPHENOL

Waste Code: D042
Waste Description: 2,4,6-TRICHLOROPHENOL

Waste Code: D043
Waste Description: VINYL CHLORIDE

Waste Code: F001
Waste Description: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F002
Waste Description: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F003
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F005
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC	
Legal Status:	Private
Date Became Current:	19900625
Date Ended Current:	Not reported
Owner/Operator Address:	5400 LEGACY DR
Owner/Operator City,State,Zip:	PLANO, TX 75024
Owner/Operator Telephone:	972-265-2000
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC.	
Legal Status:	Private
Date Became Current:	19900625
Date Ended Current:	Not reported
Owner/Operator Address:	42 LONGWATER DRIVE
Owner/Operator City,State,Zip:	NORWELL, MA 02061-9149
Owner/Operator Telephone:	781-792-5000
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	NAHID.TOOSSI@SAFETY-KLEEN.COM

Owner/Operator Indicator:	Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC.	
Legal Status:	Private
Date Became Current:	19900625
Date Ended Current:	Not reported
Owner/Operator Address:	7979 PALM AVENUE
Owner/Operator City,State,Zip:	HIGHLAND, CA 92346
Owner/Operator Telephone:	909-862-8300
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	NAHID.TOOSSI@SAFETY-KLEEN.COM

Owner/Operator Indicator:	Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC	
Legal Status:	Private
Date Became Current:	19900625
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC	
Legal Status:	Private
Date Became Current:	19900625
Date Ended Current:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Owner/Operator Address: 7979 PALM AVE
Owner/Operator City,State,Zip: HIGHLAND, CA 92346
Owner/Operator Telephone: 714-429-4355
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5400 LEGACY DR.,CL II, BLDG. 3
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 2600 NORTH CENTRAL EXPRESSWAY
Owner/Operator City,State,Zip: RICHARDSON, TX 75080
Owner/Operator Telephone: 972-265-2000
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN CORP ELGIN IL
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 777 BIG TIMBER RD
Owner/Operator City,State,Zip: ELGIN, IL 60123
Owner/Operator Telephone: 708-697-8460
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC.

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 7979 PALM AVENUE
Owner/Operator City,State,Zip: HIGHLAND, CA 92346
Owner/Operator Telephone: 909-862-8300
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: NAHID.TOOSSI@SAFETY-KLEEN.COM

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5400 LEGACY DRIVE
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5360 LEGACY DR
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: 972-265-2000
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5400 LEGACY DRIVE
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 2600 NORTH CENTRAL EXPRESSWAY
Owner/Operator City,State,Zip: RICHARDSON, TX 75080
Owner/Operator Telephone: 714-429-4355
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 2600 NORTH CENTRAL EXPRESSWAY
Owner/Operator City,State,Zip: RICHARDSON, TX 75080
Owner/Operator Telephone: 972-265-2000
Owner/Operator Telephone Ext: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Owner/Operator Fax: Not reported
Owner/Operator Email: NAHID.TOOSSI@SAFETY-KLEEN.COM

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 1301 GERVAIS ST STE 300
Owner/Operator City,State,Zip: COLUMBIA, SC 29201
Owner/Operator Telephone: 803-933-4393
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20060227
Handler Name: SAFETY-KLEEN SYSTEMS, INC.
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20100805
Handler Name: SAFETY-KLEEN SYSTEMS INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20120821
Handler Name: SAFETY-KLEEN SYSTEMS, INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20140301
Handler Name: SAFETY-KLEEN SYSTEMS, INC

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20160226
Handler Name: SAFETY-KLEEN SYSTEMS, INC.
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20180223
Handler Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 20200203
Handler Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Federal Waste Generator Description: Large Quantity Generator
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: No
Electronic Manifest Broker: No

Receive Date: 19980713
Handler Name: SAFETY KLEEN SYSTEMS INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19900412
Handler Name: SAFETY-KLEEN CORP (7-172-01)
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19920331
Handler Name: SAFETY-KLEEN CORP (7-172-01)
Federal Waste Generator Description: Small Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19940325
Handler Name: SAFETY-KLEEN CORP
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19960329
Handler Name: SAFETY KLEEN CORP
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Receive Date: 19990304
Handler Name: SAFETY-KLEEN CORP - HIGHLAND, CA
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20001012
Handler Name: SAFETY-KLEEN SYSTEMS, INC. SAN BERNARDIN
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20020327
Handler Name: SAFETY-KLEEN SYSTEMS, INC.
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20040329
Handler Name: SAFETY-KLEEN SYSTEMS INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20080313
Handler Name: SAFETY-KLEEN SYSTEMS INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	42183
NAICS Description:	INDUSTRIAL MACHINERY AND EQUIPMENT WHOLESALERS
NAICS Code:	42269
NAICS Description:	OTHER CHEMICAL AND ALLIED PRODUCTS WHOLESALERS
NAICS Code:	42272
NAICS Description:	PETROLEUM AND PETROLEUM PRODUCTS WHOLESALERS (EXCEPT BULK STATIONS AND TERMINALS)
NAICS Code:	44131
NAICS Description:	AUTOMOTIVE PARTS AND ACCESSORIES STORES
NAICS Code:	53231
NAICS Description:	GENERAL RENTAL CENTERS
NAICS Code:	561499
NAICS Description:	ALL OTHER BUSINESS SUPPORT SERVICES
NAICS Code:	56199
NAICS Description:	ALL OTHER SUPPORT SERVICES
NAICS Code:	562112
NAICS Description:	HAZARDOUS WASTE COLLECTION

Facility Has Received Notices of Violation:

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: State Statute or Regulation
Date Violation was Determined: 20090113
Actual Return to Compliance Date: 20090218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 514
Date of Enforcement Action: 20090114
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description: TSD - Closure/Post-Closure
Date Violation was Determined: 19900326
Actual Return to Compliance Date: 19911121
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19900808
Enforcement Identifier: 003
Date of Enforcement Action: 19900508
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20000828
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD IS-Preparedness and Prevention
Date Violation was Determined: 20161130
Actual Return to Compliance Date: 20161130
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 306
Date of Enforcement Action: 20161130
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	Generators - General
Date Violation was Determined:	19960415
Actual Return to Compliance Date:	19960415
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	006
Date of Enforcement Action:	19960415
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General Facility Standards
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20000828
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20120927
Actual Return to Compliance Date:	20120927
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	302
Date of Enforcement Action:	20120927
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	TSD - General Facility Standards
Date Violation was Determined:	20000825
Actual Return to Compliance Date:	20001005
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	501
Date of Enforcement Action:	20000918
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	State Statute or Regulation
Date Violation was Determined:	20071022
Actual Return to Compliance Date:	20071023
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	200
Date of Enforcement Action:	20071023
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description: TSD - Financial Requirements
Date Violation was Determined: 19880803
Actual Return to Compliance Date: 19890221
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19880626
Enforcement Identifier: 001
Date of Enforcement Action: 19880526
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD - Financial Requirements
Date Violation was Determined: 19910926
Actual Return to Compliance Date: 19930723
Return to Compliance Qualifier: Unverifiable
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20120927
Actual Return to Compliance Date:	20120927
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	518
Date of Enforcement Action:	20121120
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General Facility Standards
Date Violation was Determined: 20051025
Actual Return to Compliance Date: 20060316
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20051122
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description: TSD - Tank System Standards
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20000828
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19900326
Actual Return to Compliance Date: 19911121
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19900808
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 20071022
Actual Return to Compliance Date: 20071023
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 511
Date of Enforcement Action: 20071207
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Tank System Standards
Date Violation was Determined:	20000825
Actual Return to Compliance Date:	20001005
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	501
Date of Enforcement Action:	20000918
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: State Statute or Regulation
Date Violation was Determined: 20071022
Actual Return to Compliance Date: 20071023
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 511
Date of Enforcement Action: 20071207
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	LDR - General
Date Violation was Determined:	19900326
Actual Return to Compliance Date:	19911121
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19900808
Enforcement Identifier:	003
Date of Enforcement Action:	19900508
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19880809
Actual Return to Compliance Date: 19900514
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19881015
Enforcement Identifier: 002
Date of Enforcement Action: 19880915
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	TSD - Manifest/Records/Reporting
Date Violation was Determined:	20000825
Actual Return to Compliance Date:	20001005
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	501
Date of Enforcement Action:	20000918
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19900326
Actual Return to Compliance Date:	19911121
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19900808
Enforcement Identifier:	003
Date of Enforcement Action:	19900508
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 20071022
Actual Return to Compliance Date: 20071023
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20071023
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Financial Requirements
Date Violation was Determined: 20060926
Actual Return to Compliance Date: 20060926
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20061006
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General
Date Violation was Determined:	19910319
Actual Return to Compliance Date:	19911122
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19910801
Enforcement Identifier:	005
Date of Enforcement Action:	19910403
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Tank System Standards
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 215
Date of Enforcement Action: 20010827
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: SINGLE SITE CA/FO
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: 17000
Paid Amount: Not reported
Final Count: 1
Final Amount: 17000

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	LDR - General
Date Violation was Determined:	19900326
Actual Return to Compliance Date:	19911121
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19900808
Enforcement Identifier:	003
Date of Enforcement Action:	19900508
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General Facility Standards
Date Violation was Determined:	20051025
Actual Return to Compliance Date:	20060316
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	507
Date of Enforcement Action:	20051122
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD IS-Preparedness and Prevention
Date Violation was Determined: 20161130
Actual Return to Compliance Date: 20161130
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 522
Date of Enforcement Action: 20170127
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Financial Requirements
Date Violation was Determined:	20060926
Actual Return to Compliance Date:	20060926
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	510
Date of Enforcement Action:	20061006
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: State Statute or Regulation
Date Violation was Determined: 20090113
Actual Return to Compliance Date: 20090218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20090114
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 20031126
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier: Not reported
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 19990720
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: Not reported
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20010827
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20090113
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20090218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20161130
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20161130
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19960415
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19960415
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19980831
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20101109
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20120927
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19930623
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20071022
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071023
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20121207
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19880803
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19890221
Scheduled Compliance Date:	19880626
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20101208
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19910926
Evaluation Responsible Agency:	EPA

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19930723
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20071031
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20120927
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20051025
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20060316
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20071022
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071023
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20161213
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Date:	20071022
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071023
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19970227
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20150102
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20050125
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20081222
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19880809
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19900514
Scheduled Compliance Date:	19881015
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19930723
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20071022
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071023
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20060926
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20060926
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20051104
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20050607
Evaluation Responsible Agency:	State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19910319
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911122
Scheduled Compliance Date:	19910801
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20031119
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19900320
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20141110
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20051025
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20060316
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20161130
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20161130
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Date:	20060919
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20060926
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20060926
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20090113
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20090218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20001005
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	NOT A SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

RCRA-LQG:

Date Form Received by Agency:	20200203
Handler Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Handler Address:	7979 PALM AVENUE
Handler City,State,Zip:	HIGHLAND, CA 92346-0000
EPA ID:	CAT000613927
Contact Name:	NAHID TOOSSI
Contact Address:	SOUTH YALE STREET
Contact City,State,Zip:	SANTA ANA, CA 92704
Contact Telephone:	949-981-5099
Contact Fax:	Not reported
Contact Email:	NAHID.TOOSSI@SAFETY-KLEEN.COM
Contact Title:	DIRECTOR COMPLIANCE
EPA Region:	09
Land Type:	Private
Federal Waste Generator Description:	Large Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	2019
Accessibility:	Not reported
Active Site Indicator:	Handler Activities, Corrective Action Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	PALM AVENUE
Mailing City,State,Zip:	HIGHLAND, CA 92346
Owner Name:	SAFETY-KLEEN SYSTEMS INC.
Owner Type:	Private
Operator Name:	SAFETY-KLEEN SYSTEMS INC.
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	Yes
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:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	Yes
Treatment Storage and Disposal Type:	Storage, Treatment
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Accomplished
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Storage, Treatment
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

202 GPRA Corrective Action Baseline:	Yes
Corrective Action Workload Universe:	Yes
Subject to Corrective Action Universe:	Yes
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:	Yes
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	Yes
Groundwater Controls Indicator:	Yes
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:	20201014
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

Biennial: List of Years
Year: 2019

Click Here for Biennial Reporting System Data:
Year: 2017

Click Here for Biennial Reporting System Data:
Year: 2015

Click Here for Biennial Reporting System Data:
Year: 2013

Click Here for Biennial Reporting System Data:
Year: 2011

Click Here for Biennial Reporting System Data:
Year: 2009

Click Here for Biennial Reporting System Data:
Year: 2007

Click Here for Biennial Reporting System Data:
Year: 2005

Click Here for Biennial Reporting System Data:
Year: 2003

Click Here for Biennial Reporting System Data:
Year: 2001

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:

Waste Code:	D000
Waste Description:	Not Defined
Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D004
Waste Description:	ARSENIC
Waste Code:	D005
Waste Description:	BARIUM
Waste Code:	D006
Waste Description:	CADMIUM
Waste Code:	D007
Waste Description:	CHROMIUM
Waste Code:	D008
Waste Description:	LEAD
Waste Code:	D009
Waste Description:	MERCURY
Waste Code:	D010
Waste Description:	SELENIUM
Waste Code:	D011
Waste Description:	SILVER
Waste Code:	D018
Waste Description:	BENZENE
Waste Code:	D019
Waste Description:	CARBON TETRACHLORIDE
Waste Code:	D021
Waste Description:	CHLOROBENZENE
Waste Code:	D022
Waste Description:	CHLOROFORM
Waste Code:	D023
Waste Description:	O-CRESOL
Waste Code:	D024
Waste Description:	M-CRESOL
Waste Code:	D025
Waste Description:	P-CRESOL
Waste Code:	D026
Waste Description:	CRESOL

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Waste Code:	D027
Waste Description:	1,4-DICHLOROBENZENE
Waste Code:	D028
Waste Description:	1,2-DICHLOROETHANE
Waste Code:	D029
Waste Description:	1,1-DICHLOROETHYLENE
Waste Code:	D030
Waste Description:	2,4-DINITROTOLUENE
Waste Code:	D032
Waste Description:	HEXACHLOROBENZENE
Waste Code:	D033
Waste Description:	HEXACHLOROBUTADIENE
Waste Code:	D034
Waste Description:	HEXACHLOROETHANE
Waste Code:	D035
Waste Description:	METHYL ETHYL KETONE
Waste Code:	D036
Waste Description:	NITROBENZENE
Waste Code:	D037
Waste Description:	PENTACHLOROPHENOL
Waste Code:	D038
Waste Description:	PYRIDINE
Waste Code:	D039
Waste Description:	TETRACHLOROETHYLENE
Waste Code:	D040
Waste Description:	TRICHLORETHYLENE
Waste Code:	D041
Waste Description:	2,4,5-TRICHLOROPHENOL
Waste Code:	D042
Waste Description:	2,4,6-TRICHLOROPHENOL
Waste Code:	D043
Waste Description:	VINYL CHLORIDE
Waste Code:	F001
Waste Description:	THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Waste Code: F002
Waste Description: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F003
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F005
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5400 LEGACY DR
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: 972-265-2000
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 42 LONGWATER DRIVE
Owner/Operator City,State,Zip: NORWELL, MA 02061-9149
Owner/Operator Telephone: 781-792-5000
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: NAHID.TOOSSI@SAFETY-KLEEN.COM

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 7979 PALM AVENUE
Owner/Operator City,State,Zip: HIGHLAND, CA 92346
Owner/Operator Telephone: 909-862-8300
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: NAHID.TOOSSI@SAFETY-KLEEN.COM

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 7979 PALM AVE
Owner/Operator City,State,Zip: HIGHLAND, CA 92346
Owner/Operator Telephone: 714-429-4355
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5400 LEGACY DR.,CL II, BLDG. 3
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 2600 NORTH CENTRAL EXPRESSWAY
Owner/Operator City,State,Zip: RICHARDSON, TX 75080
Owner/Operator Telephone: 972-265-2000
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN CORP ELGIN IL
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 777 BIG TIMBER RD
Owner/Operator City,State,Zip: ELGIN, IL 60123
Owner/Operator Telephone: 708-697-8460
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 7979 PALM AVENUE

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Owner/Operator City,State,Zip: HIGHLAND, CA 92346
Owner/Operator Telephone: 909-862-8300
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: NAHID.TOOSSI@SAFETY-KLEEN.COM

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5400 LEGACY DRIVE
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5360 LEGACY DR
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: 972-265-2000
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 5400 LEGACY DRIVE
Owner/Operator City,State,Zip: PLANO, TX 75024
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC.
Legal Status: Private

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS, INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 2600 NORTH CENTRAL EXPRESSWAY
Owner/Operator City,State,Zip: RICHARDSON, TX 75080
Owner/Operator Telephone: 714-429-4355
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY-KLEEN SYSTEMS INC.
Legal Status: Private
Date Became Current: 19900625
Date Ended Current: Not reported
Owner/Operator Address: 2600 NORTH CENTRAL EXPRESSWAY
Owner/Operator City,State,Zip: RICHARDSON, TX 75080
Owner/Operator Telephone: 972-265-2000
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: NAHID.TOOSSI@SAFETY-KLEEN.COM

Owner/Operator Indicator: Owner
Owner/Operator Name: SAFETY KLEEN SYSTEMS INC
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 1301 GERVAIS ST STE 300
Owner/Operator City,State,Zip: COLUMBIA, SC 29201
Owner/Operator Telephone: 803-933-4393
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20060227
Handler Name: SAFETY-KLEEN SYSTEMS, INC.
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Electronic Manifest Broker: Not reported

Receive Date: 20100805
Handler Name: SAFETY-KLEEN SYSTEMS INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20120821
Handler Name: SAFETY-KLEEN SYSTEMS, INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20140301
Handler Name: SAFETY-KLEEN SYSTEMS, INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20160226
Handler Name: SAFETY-KLEEN SYSTEMS, INC.
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20180223
Handler Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Federal Waste Generator Description: Large Quantity Generator

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

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: No
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 20200203
Handler Name: SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Federal Waste Generator Description: Large Quantity Generator
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: No
Electronic Manifest Broker: No

Receive Date: 19980713
Handler Name: SAFETY KLEEN SYSTEMS INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19900412
Handler Name: SAFETY-KLEEN CORP (7-172-01)
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19920331
Handler Name: SAFETY-KLEEN CORP (7-172-01)
Federal Waste Generator Description: Small Quantity Generator
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

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19940325
Handler Name: SAFETY-KLEEN CORP
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19960329
Handler Name: SAFETY KLEEN CORP
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19990304
Handler Name: SAFETY-KLEEN CORP - HIGHLAND, CA
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20001012
Handler Name: SAFETY-KLEEN SYSTEMS, INC. SAN BERNARDIN
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Receive Date: 20020327
Handler Name: SAFETY-KLEEN SYSTEMS, INC.
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20040329
Handler Name: SAFETY-KLEEN SYSTEMS INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20080313
Handler Name: SAFETY-KLEEN SYSTEMS INC
Federal Waste Generator Description: Large Quantity Generator
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 42183
NAICS Description: INDUSTRIAL MACHINERY AND EQUIPMENT WHOLESALERS

NAICS Code: 42269
NAICS Description: OTHER CHEMICAL AND ALLIED PRODUCTS WHOLESALERS

NAICS Code: 42272
NAICS Description: PETROLEUM AND PETROLEUM PRODUCTS WHOLESALERS (EXCEPT BULK STATIONS AND TERMINALS)

NAICS Code: 44131
NAICS Description: AUTOMOTIVE PARTS AND ACCESSORIES STORES

NAICS Code: 53231
NAICS Description: GENERAL RENTAL CENTERS

NAICS Code: 561499

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

NAICS Description: ALL OTHER BUSINESS SUPPORT SERVICES

NAICS Code: 56199
NAICS Description: ALL OTHER SUPPORT SERVICES

NAICS Code: 562112
NAICS Description: HAZARDOUS WASTE COLLECTION

Facility Has Received Notices of Violation:
Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	State Statute or Regulation
Date Violation was Determined:	20090113
Actual Return to Compliance Date:	20090218
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	514
Date of Enforcement Action:	20090114

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Closure/Post-Closure
Date Violation was Determined: 19900326
Actual Return to Compliance Date: 19911121
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19900808
Enforcement Identifier: 003
Date of Enforcement Action: 19900508
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20000828
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD IS-Preparedness and Prevention
Date Violation was Determined: 20161130
Actual Return to Compliance Date: 20161130
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 306
Date of Enforcement Action: 20161130

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 19960415
Actual Return to Compliance Date: 19960415
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 006
Date of Enforcement Action: 19960415
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General Facility Standards
Date Violation was Determined:	20000825
Actual Return to Compliance Date:	20001005
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	200
Date of Enforcement Action:	20000828

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 20120927
Actual Return to Compliance Date: 20120927
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 302
Date of Enforcement Action: 20120927
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General Facility Standards
Date Violation was Determined:	20000825
Actual Return to Compliance Date:	20001005
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	501
Date of Enforcement Action:	20000918
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: State Statute or Regulation
Date Violation was Determined: 20071022
Actual Return to Compliance Date: 20071023
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20071023
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Financial Requirements
Date Violation was Determined:	19880803
Actual Return to Compliance Date:	19890221
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19880626
Enforcement Identifier:	001
Date of Enforcement Action:	19880526
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD - Financial Requirements
Date Violation was Determined: 19910926
Actual Return to Compliance Date: 19930723
Return to Compliance Qualifier: Unverifiable
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 20120927
Actual Return to Compliance Date: 20120927
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 518
Date of Enforcement Action: 20121120
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General Facility Standards
Date Violation was Determined: 20051025
Actual Return to Compliance Date: 20060316
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20051122

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Tank System Standards
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20000828
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19900326
Actual Return to Compliance Date: 19911121
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19900808
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 20071022
Actual Return to Compliance Date: 20071023
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 511
Date of Enforcement Action: 20071207

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Tank System Standards
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 501
Date of Enforcement Action: 20000918
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: State Statute or Regulation
Date Violation was Determined: 20071022
Actual Return to Compliance Date: 20071023
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 511
Date of Enforcement Action: 20071207

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: LDR - General
Date Violation was Determined: 19900326
Actual Return to Compliance Date: 19911121
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19900808
Enforcement Identifier: 003
Date of Enforcement Action: 19900508
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19880809
Actual Return to Compliance Date: 19900514
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19881015
Enforcement Identifier: 002
Date of Enforcement Action: 19880915

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 501
Date of Enforcement Action: 20000918
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19900326
Actual Return to Compliance Date: 19911121
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19900808
Enforcement Identifier: 003
Date of Enforcement Action: 19900508
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 20071022
Actual Return to Compliance Date: 20071023
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20071023
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Financial Requirements
Date Violation was Determined: 20060926
Actual Return to Compliance Date: 20060926
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20061006
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General
Date Violation was Determined: 19910319
Actual Return to Compliance Date: 19911122
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: 19910801
Enforcement Identifier: 005
Date of Enforcement Action: 19910403
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Tank System Standards
Date Violation was Determined: 20000825
Actual Return to Compliance Date: 20001005
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 215
Date of Enforcement Action: 20010827
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: SINGLE SITE CA/FO
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: 17000
Paid Amount: Not reported
Final Count: 1
Final Amount: 17000

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	LDR - General
Date Violation was Determined:	19900326
Actual Return to Compliance Date:	19911121
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19900808
Enforcement Identifier:	003
Date of Enforcement Action:	19900508
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9STA
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General Facility Standards
Date Violation was Determined: 20051025
Actual Return to Compliance Date: 20060316
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 507
Date of Enforcement Action: 20051122
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD IS-Preparedness and Prevention
Date Violation was Determined: 20161130
Actual Return to Compliance Date: 20161130
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 522
Date of Enforcement Action: 20170127

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Financial Requirements
Date Violation was Determined: 20060926
Actual Return to Compliance Date: 20060926
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 510
Date of Enforcement Action: 20061006
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: State Statute or Regulation
Date Violation was Determined: 20090113
Actual Return to Compliance Date: 20090218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 20090114

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Evaluation Action Summary:

Evaluation Date:	20031126
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19990720
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20010827
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20090113
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20090218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20161130
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20161130
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Date:	19960415
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19960415
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19980831
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20101109
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20120927
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19930623
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20071022
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071023
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20121207
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19880803
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19890221
Scheduled Compliance Date:	19880626
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20101208
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19910926
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19930723
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20071031
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20120927
Evaluation Responsible Agency:	State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20051025
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20060316
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20071022
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071023

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20161213
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20071022
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071023
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Date:	19970227
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20150102
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20050125
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20081222
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19880809
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19900514
Scheduled Compliance Date:	19881015
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121
Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19930723
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20071022
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071023
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20060926
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20060926
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20051104
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20050607
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19910319
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911122
Scheduled Compliance Date:	19910801
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20031119
Evaluation Responsible Agency:	State

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19900320
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20000825
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20001005
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20141110
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19900326
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19911121

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Scheduled Compliance Date:	19900808
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20051025
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20060316
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20161130
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20161130
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20060919
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20060926
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20060926
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Evaluation Date:	20090113
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20090218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20001005
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	NOT A SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

US FIN ASSUR:

Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address:	7979 PALM AVENUE
City,State,Zip:	HIGHLAND, CA
EPA ID:	CAT000613927
County:	Not reported
Mechanism type:	I
Mechanism Type Description:	INSURANCE
Cost estimate:	149250
Face value:	172994
Effective date:	2010-11-17 00:00:00
Provider:	INDIAN HARBOR INSURANCE
EPA region:	9

Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address:	7979 PALM AVENUE
City,State,Zip:	HIGHLAND, CA
EPA ID:	CAT000613927
County:	Not reported
Mechanism type:	I
Mechanism Type Description:	INSURANCE
Cost estimate:	2000000
Face value:	2000000
Effective date:	2011-09-01 00:00:00
Provider:	GREENWICH INSURANCE CO.
EPA region:	9

Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address:	7979 PALM AVENUE
City,State,Zip:	HIGHLAND, CA
EPA ID:	CAT000613927
County:	Not reported
Mechanism type:	I
Mechanism Type Description:	INSURANCE
Cost estimate:	2000000
Face value:	2000000
Effective date:	2015-11-01 00:00:00
Provider:	INDIAN HARBOR INS. CO.
EPA region:	9

Name:	SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER
Address:	7979 PALM AVENUE
City,State,Zip:	HIGHLAND, CA
EPA ID:	CAT000613927
County:	Not reported
Mechanism type:	I
Mechanism Type Description:	INSURANCE
Cost estimate:	149250
Face value:	186909
Effective date:	2015-11-17 00:00:00
Provider:	INDIAN HARBOR INS. CO.
EPA region:	9

2020 COR ACTION:

EPA ID:	CAT000613927
Region:	9

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Action: Remedy Construction

NJ MANIFEST:

EPA Id:	CAT000613927
Mail Address:	777 BIG TIMBER ROAD
Mail City/State/Zip:	ELGIN, IL 60123-0000
Facility Phone:	Not reported
Emergency Phone:	Not reported
Contact:	BOB WACHSMUTH
Comments:	Not reported
SIC Code:	Not reported
County:	CA071
Municipal:	Not reported
Previous EPA Id:	Not reported
Gen Flag:	Not reported
Trans Flag:	Not reported
TSDF Flag:	Not reported
Name Change:	Not reported
Date Change:	Not reported

Manifest:

Manifest Number:	002667579SKS
EPA ID:	CAT000613927
Date Shipped:	2/17/2011
TSDF EPA ID:	NJD002182897
Transporter EPA ID:	TXR000050930
Transporter 2 EPA ID:	ORQ000006601
Transporter 3 EPA ID:	MND048341788
Transporter 4 EPA ID:	FLD006921340
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (Continued) **1015732922**

Manifest Discrepancy Type: Not reported
Data Entry Number: Not reported
Was Load Rejected: ELGIN, IL 60123-0000
Reason Load Was Rejected: Not reported

Waste:
Manifest Year: Not reported
Waste Code: D001
Hand Code: H020
Quantity: 1,796.00 gallons

K42 **NORTON AIR FORCE BASE** **CA ENVIROSTOR** **S101272838**
SW **2,208 ACRES;58 MI EA OF LOS ANGELES, CA** **CA HIST Cal-Sites** **N/A**
1/2-1 **SAN BERNARDINO, CA 92409** **CA DEED**
0.697 mi.
3681 ft. **Site 1 of 3 in cluster K**

Relative: **Lower**
Actual: **1138 ft.**

ENVIROSTOR:
Name: NORTON AIR FORCE BASE
Address: 2,208 ACRES;58 MI EA OF LOS ANGELES, CA
City,State,Zip: SAN BERNARDINO, CA 92409
Facility ID: 36970004
Status: Active
Status Date: 05/01/1986
Site Code: 401403
Site Type: Federal Superfund
Site Type Detailed: Closed Base
Acres: 2179
NPL: YES
Regulatory Agencies: SMBRP, RWQCB 8 - Santa Ana, US EPA
Lead Agency: US EPA
Program Manager: Stephen Niou
Supervisor: Eileen Mananian
Division Branch: Cleanup Cypress
Assembly: 40
Senate: 23
Special Program: DSMOA
Restricted Use: YES
Site Mgmt Req: NONE SPECIFIED
Funding: BRAC 88
Latitude: 34.0966
Longitude: -117.2478
APN: NONE SPECIFIED
Past Use: AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS, DAY CARE FACILITY, DEGREASING FACILITY, DRY CLEANING, ENGINE TESTING/REPAIR, FIRE TRAINING AREAS, FIRING RANGE - SMALL ARMS ETC..., FUEL - AIRCRAFT STORAGE/ REFUELING, JET FUEL STORAGE/REFUELING, LANDFILL - DOMESTIC, MACHINE SHOP, OIL/WATER SEPARATORS, PAINT/DEPAINT FACILITY, PHOTOGRAPHIC PROCESSING, RESIDENTIAL AREA, TRANSPORTATION - WAREHOUSING, WASTE - INDUSTRIAL TREATMENT FACILITY, WASTE - INDUSTRIAL WASTE LINE, WASTE WATER PONDS
Potential COC: * Metals - Sludge * Sludge - Paint Dioxin (as 2,3,7,8-TCDD TEQ Lead Methane Polynuclear aromatic hydrocarbons (PAHs TPH-JET FUEL Trichloroethylene (TCE
Confirmed COC: Dioxin (as 2,3,7,8-TCDD TEQ Lead Methane Polynuclear aromatic

NORTON AIR FORCE BASE (Continued) **S101272838**

hydrocarbons (PAHs Trichloroethylene (TCE TPH-JET FUEL
Potential Description: AQUI, OTH, SOIL, WELL
Alias Name: CA4570024345
Alias Type: EPA Identification Number
Alias Name: 110033605908
Alias Type: EPA (FRS #)
Alias Name: DOD100360700
Alias Type: GeoTracker Global ID
Alias Name: DOD100364300
Alias Type: GeoTracker Global ID
Alias Name: SLT8R1744169
Alias Type: GeoTracker Global ID
Alias Name: T10000007307
Alias Type: GeoTracker Global ID
Alias Name: P42053
Alias Type: PCode
Alias Name: 11671
Alias Type: RB-PCA
Alias Name: 400108
Alias Type: Project Code (Site Code)
Alias Name: 401403
Alias Type: Project Code (Site Code)
Alias Name: 36970004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: BASEWIDE
Completed Sub Area Name: AOC70
Completed Document Type: Removal Action Completion Report
Completed Date: 10/29/1998
Comments: RA - AOC70: The Removal Action goal for AOC 70 was to excavate and remove soil containing contaminants of concern: PCBs, benzo(a pyrene, benzo(b)flouranthene, benzo(k)-flouranthene, TPH-diesel and TPH-gasoline at depths up to 10 feet. Approximately 1632 cubic yards of material was excavated, treated and disposed off- site. Confirmation samples were then taken, analyzed and the determination was made that the objectives were met. The area was then backfilled with clean fill and graded. ‘ RA - IRP10: The Removal Action goal for IRP Site 10 was to excavate and remove soil containing contaminants of concern: lead arsenic and chromium at depths up to three feet or one foot below the ash layer, as this was the zone of ecological risk. Approx. 224 cubic yards of non-hazardous material was disposed of at the base landfill, IRP Site 2 and approximately 116 cubic yards of potentially hazardous waste were excavated and disposed off site. Confirmation samples were then taken, analyzed and the determination was made that the objectives were met. The area was then backfilled with clean fill and graded.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 06/23/2003
Comments: RIFS - BSWD: The BCT has disputed on the implementation of institutional control in 1999. While the resolution state that the AF will issue post-ROD primary documents to specify IC requirements, the revised BSWD FS denied such a commitment and states that ICs are AF’s voluntary acts. The implementation of ICs shouldn’t be overseeing by regulatory agencies. After much discussion EPA, DTSC, RWQCB, and the

NORTON AIR FORCE BASE (Continued) **S101272838**

AF agreed to postpone the dispute of IC implementation until the draft ROD is issued. The regulatiory agencies thus approved the proposed remedies for the sites included in this BSWD FS.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: E-2A
Completed Document Type: Environmental Baseline Survey
Completed Date: 10/16/1998
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: E-1
Completed Document Type: Environmental Baseline Survey
Completed Date: 10/16/1998
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: E-2A
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 10/16/1998
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: E-1
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 10/16/1998
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P E-2
Completed Document Type: Environmental Baseline Survey
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: AOC73
Completed Document Type: Removal Action Completion Report
Completed Date: 06/23/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: AOC38
Completed Document Type: Removal Action Completion Report
Completed Date: 06/19/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: AOC37
Completed Document Type: Removal Action Completion Report
Completed Date: 06/19/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SITE8
Completed Document Type: Removal Action Completion Report
Completed Date: 06/19/1997
Comments: RA - SITE 8: The removal actions involved the excavation and disposal

NORTON AIR FORCE BASE (Continued) **S101272838**

of 1,553 cubic yards of contaminated soil either to an offsite disposal facility, if hazardous, or to IRP Site 2. Verification sampling was conducted to document that target cleanup goals (TCGS) identified in the Final Action Memoran- dum were achieved. Site restoration was also performed. Confirmation surface soil samples were collected from the excavations to assess if cleanup goals had been attained, in accordance with the Work Plan. RA - AOC37: The removal actions involved the excavation and disposal of 8,925 cubic yards of contaminated soil either to an offsite disposal facility, if hazardous, or to IRP Site 2. Verification sampling was conducted to document that target cleanup goals (TCGS) identified in the Final Action Memoran- dum were achieved. Site restoration was also performed. Confirmation surface soil samples were collected from the excavations to assess if cleanup goals had been attained, in accordance with the Work Plan. RA - AOC38: The removal actions involved the excavation and disposal of 1,603 cubic yards of contaminated soil either to an offsite disposal facility, if hazardous, or to IRP Site 2. Verification sampling was conducted to document that target cleanup goals (TCGS) identified in the Final Action Memoran- dum were achieved. Site restoration was also performed. Confirmation surface soil samples were collected from the excavations to assess if cleanup goals had been attained, in accordance with the Work Plan.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE14
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 06/27/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P E-1
Completed Document Type: Environmental Baseline Survey
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: WATER
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 09/24/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-N
Completed Document Type: Finding of Suitability to Lease
Completed Date: 06/30/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P M
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P M
Completed Document Type: Environmental Baseline Survey

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P G-2
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P G-2
Completed Document Type: Environmental Baseline Survey
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE2
Completed Document Type: * Remedial or Removal Design
Completed Date: 12/29/1997
Comments: DES - SITE2: As a result of trenching activities and in accordance with Title 27, California Code of Regulations, the intent of this plan is to upgrade waste management units to closure standards established in regulations. This activity is equivalent to a RAP since it will cost approxi- mately $13,700,000.00. The public and regulatory agencies have had an opportunity to comment and all comments have been adeguately addressed by the PRP. Activities which will take place from February 1998 to December 1998 include: landfill gas extraction and treatment, waste consolidation of approximately 120,000 cubic yards from the northeast, confirmation sampling of consolidated material, a monolithic cover, drainage control, groundwater monitoring and long term operation and maintenance activities.

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE2
Completed Document Type: Remedial Action Plan
Completed Date: 12/29/1997
Comments: RAP - SITE2: As a result of trenching activities and in accordance with Title 27, California Code of Regulations, the intent of this plan is to upgrade waste management units to closure standards established in regulations. This activity is equivalent to a RAP since it will cost approxim- ately $ 13,700,000.00. The public and regulatory agencies have had an opportunity to comment and all comments have been adequately addressed by the PRP. Activities which will take place from February 1998 to December 1998 include: landfill gas extraction and treatment, waste consolidation of approximately 120,000 cubic yards from the northeast, confirmation sampling of consolidated material, a monolithic, cover, drainage control, groundwater monitoring and long term operation and maintenance activities.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P1-3A
Completed Document Type: Environmental Baseline Survey
Completed Date: 04/23/1998
Comments: Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P1-3A
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 04/23/1998
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE1
Completed Document Type: Removal Action Completion Report
Completed Date: 12/29/1997
Comments: RA - SITE1: A removal action was implemented as a result of an Actrion Memorandum completed in March 1996. the removal action was implemented in two phases between November 1996 and July 1997. A total of approximately 20,900 tons of soils exceeding cleanup levels were excavated and disposed of off- base at an appropriate facility. Approximately 3,800 square feet of material above the cleanup levels were left in place as they were not extractable during the removal effort. The excavation was subsequently back filled and the graded to its original levels. In addition, three new monitoring wells were installed for monitoring purposes. A Long Term Ground- water Monitoring plan will be implemented as a result of leaving matreials in place.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: ST5SV
Completed Document Type: Removal Action Completion Report
Completed Date: 06/09/1999
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: ST5SO
Completed Document Type: Removal Action Completion Report
Completed Date: 06/09/1999
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-E2
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 06/02/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-E1
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 06/02/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-E2
Completed Document Type: Environmental Baseline Survey
Completed Date: 06/02/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-E1
Completed Document Type: Environmental Baseline Survey
Completed Date: 06/02/1997

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 6AOCS
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 06/25/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: 6AOCS
Completed Document Type: Feasibility Study Report
Completed Date: 06/25/1997
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE5
Completed Document Type: * Remedial or Removal Design
Completed Date: 06/25/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SOILR
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/23/1996
Comments: Not reported

Completed Area Name: OU2&3
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 08/22/1996
Comments: Not reported

Completed Area Name: CBA
Completed Sub Area Name: SVECB
Completed Document Type: Removal Action Completion Report
Completed Date: 06/21/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT14
Completed Document Type: Removal Action Completion Report
Completed Date: 06/19/1997
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE2
Completed Document Type: Feasibility Study Report
Completed Date: 04/30/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PAR13
Completed Document Type: Feasibility Study Report
Completed Date: 03/27/1996
Comments: Not reported

Completed Area Name: CBA

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Sub Area Name: CBAOU
Completed Document Type: Remedial Action Plan
Completed Date: 11/24/1993
Comments: RAP CBAOU 11/24/93 Completion of Proposed Plan and Record of Decision for the Central Base Area Operable Unit (CBAOU). The proposed Plan details the remedies considered and selected to clean groundwater and soil contamination in the CBA OU, and give the public the opportunity to comment on the proposed remedies. The Record of Decision explains the basis and purpose of the decision made by the Air Force to implement the remedies proposed in the proposed plan. Volume Treated, Stabilized, or Disposed: N/A Approximate cost $60,000.00

Completed Area Name: CBA
Completed Sub Area Name: BBPTS
Completed Document Type: Removal Action Completion Report
Completed Date: 04/02/1996
Comments: Not reported

Completed Area Name: CBA
Completed Sub Area Name: SITE9
Completed Document Type: Removal Action Completion Report
Completed Date: 04/02/1996
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE1
Completed Document Type: Feasibility Study Report
Completed Date: 02/22/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: DRMO
Completed Document Type: Removal Action Completion Report
Completed Date: 04/02/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: IRP#S
Completed Document Type: Feasibility Study Report
Completed Date: 02/02/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: ST 13
Completed Document Type: Feasibility Study Report
Completed Date: 02/02/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NFA#S
Completed Document Type: Remedial Action Plan
Completed Date: 04/09/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: ROAD
Completed Document Type: Finding of Suitability to Lease

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Date: 10/10/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: WATER
Completed Document Type: Environmental Baseline Survey
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: ROAD
Completed Document Type: Environmental Baseline Survey
Completed Date: 09/30/1995
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2005
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2005
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 06/30/2005
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/30/2005
Comments: completed

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE13
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 06/27/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: BIO-T
Completed Document Type: Removal Action Completion Report
Completed Date: 01/29/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: IWTP
Completed Document Type: Removal Action Completion Report
Completed Date: 10/24/1996
Comments: Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Area Name: BASEWIDE
Completed Sub Area Name: STE19
Completed Document Type: Remedial Action Plan
Completed Date: 07/21/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PA1-3
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 08/22/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE17
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 05/07/1998
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT13
Completed Document Type: Removal Action Completion Report
Completed Date: 06/19/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-E4
Completed Document Type: Environmental Baseline Survey
Completed Date: 04/18/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-E4
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 04/18/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-I1A
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 04/18/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-I1A
Completed Document Type: Environmental Baseline Survey
Completed Date: 04/18/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: B1234
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 10/15/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-A
Completed Document Type: Finding of Suitability to Transfer

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Date: 10/15/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/23/1993
Comments: Not reported

Completed Area Name: CBA
Completed Sub Area Name: CBAOU
Completed Document Type: Feasibility Study Report
Completed Date: 02/05/1993
Comments: Final FS for the Central Base Area (CBA) OU was approved. The CBA OU is OU#1 which addresses groundwater contamination and all sources.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: GW
Completed Document Type: Removal Action Completion Report
Completed Date: 12/02/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Engineering Evaluation / Cost Analysis
Completed Date: 08/12/1991
Comments: Filed Neg. Dec. with State clearing house in comp. w/ CEQA

Completed Area Name: CBA
Completed Sub Area Name: B#763
Completed Document Type: Removal Action Completion Report
Completed Date: 06/27/1991
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 01/30/1990
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/30/2005
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/14/2005
Comments: The action cosisted of demolishing 11 metal sheds and their floors, removing the top foot of soil (440 cubic yards), and taking confirmation samples. The calculated human health risk is 1.1x10-5 excess cancer risk and 0.02 in hazard index. The site may be suitable for unrestricted use.

Completed Area Name: PROJECT WIDE

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/26/2005
Comments: The Air Force excavated and disposed 560 cubic yards of soil soil contaminated with metal and petroleum hydrocarbons. The confirmation samples indicate no contaminants of concern exceeding the clean up goals. The site may be suitable for unrestricted use.

Completed Area Name: BASEWIDE
Completed Sub Area Name: STE10
Completed Document Type: Remedial Action Plan
Completed Date: 11/20/2003
Comments: RAP - SITE 10 (Removal action at Site 10 and 12): Following the finalization of Basewide Feasibility Study Report, the AF issued this document for conducting soil removal at these sites to accelerate cleanup actions at the former Norton AFB. Because of the endangered species, the AF will conduct formal consultation with US Fish and Wildlife and obtain permits from California Dept. of Fish and Game. The detected contamination is within four feet of ground surface, the AF will restrict depth of excavation accordingly. Also, because part of Site 10 is now potions of a golf course, part of the golf course will be closed during the removal action. Excavated soil will be profiled and sent to a regulated landfill. Once the removal action is complete, no further remedial actions are anticipated at these sites.

Completed Area Name: BASEWIDE
Completed Sub Area Name: STE10
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 01/27/2004
Comments: RAW - STE10: Because of the San Bernadino Kangaroo Rat, the Air Force will trap and relocate the animals and set up fences to prevent burrowing animals from crawling back into the excavation area during removal. The Air Force will remove the top two feet of soil and then depending on the presence of ash layers and fieldscreening sampling results to determine whether additional two feet of soil will be removed or not. After excavation, the AF will take confirmation soil samples and analyze them for dioxins/furans and metals. If excessive contamination remains, excavation will resume. Once the removal action is complete, the AF will restore the site to pre-excavation conditions.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SSWR
Completed Document Type: Environmental Baseline Survey
Completed Date: 08/31/1999
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: C1
Completed Document Type: Environmental Baseline Survey
Completed Date: 08/30/1999
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SSWR
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 08/31/1999

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: C1
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 08/30/1999
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: Site 2
Completed Document Type: Removal Action Completion Report
Completed Date: 07/21/1999
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PL-C1
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 06/15/1999
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SAR
Completed Document Type: Removal Action Completion Report
Completed Date: 06/09/1999
Comments: RA - SAR: Between July and October 1997 Earth Tech, a remedial contractor hired by the Air Force excavated, treated and disposed of lead contaminated soils down to 2 feet bgs at the base of the SAR and 4 feet into the impact berm. A total of 11,478 tons of soil was excavated and processed at IRP Site 2. Of this amount 210 tons were bullet fragments and small rocks which were classified as RCRA Hazardous waste and were disposed of offsite at Laidlaw Environmental Services landfill in Westmoreland, California. Approximately 2,100 tons were stabilized by adding 15% Portland Cement and processing through a pug mill. None of the stabilized soil met the treatment standard so all of it was sent offsite to Browning Ferris Industries (BFI) landfill in La Paz, Arizona as a California hazardous, non-RCRA waste.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-I1
Completed Document Type: Environmental Baseline Survey
Completed Date: 02/10/1999
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NCO-H
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/11/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K3
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Sub Area Name: OFFCR
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/08/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: OFFCR
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/11/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K4
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K4
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/03/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K2
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K2
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/03/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-J1
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 12/18/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-I3
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-I3
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/13/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-I2
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1997

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-I2
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/13/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-L
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 08/30/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-N
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K3
Completed Document Type: Finding of Suitability to Lease
Completed Date: 05/05/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-N
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/13/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-H
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-H
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/03/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: B1234
Completed Document Type: Environmental Baseline Survey
Completed Date: 05/12/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-A
Completed Document Type: Environmental Baseline Survey
Completed Date: 05/12/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Sub Area Name: SIT20
Completed Document Type: Feasibility Study Report
Completed Date: 07/23/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K1
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NCO-H
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/08/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 06/30/2005
Comments: completed

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: UTILS
Completed Document Type: Environmental Baseline Survey
Completed Date: 02/09/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-J1
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/13/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K1
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/03/1996
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/07/2006
Comments: Secondary document (groundwater monitoring report, 2nd quarter 2006) accepted

Completed Area Name: CBA
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 09/08/2005
Comments: Secondary document. Revised document is not required

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE2
Completed Document Type: Operation and Maintenance Report

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Date: 12/07/2006
Comments: Secondary document accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 04/25/2006
Comments: DTSC approved Site 7 closure report under CERCLA. The Air Force removed 12 concrete sludge drying beds and associated PAH-contaminated soil. A total of 113 cubic yards of concrete and 405 cubic yards of soil were excavated and disposed of. Confirmation sampling indicate that current excess cancer risk is 2x10-6.

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE2
Completed Document Type: Other Report
Completed Date: 08/24/2006
Comments: On 10/3/05, Geologic entered Site 2 Landfill with a backhoe and dug 6 potholes. This report documents Geologic's repair work on 5/9-10/06. The RA work is complete and accepted by all BCT members.

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Plan
Completed Date: 04/18/2005
Comments: The proposed plan public meeting was held on 8/11/2004

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision
Completed Date: 09/29/2005
Comments: DTSC concurred with the Basewide ROD, which addresses 22 Installation Restoration Program (IRP) sites, 73 areas of concern (AOC), the Small Arms Range, Building 752, and groundwater contamination in the Northeast Base Area. The ROD will enable properties at Norton Air Force Base to be transferred to the redevelopment authorities. The closed portions of the base are planned for air cargo, warehouses, commercial, and other industrial uses. The selected remedy for Site 2, a former landfill, is operation and maintenance of the landfill cover and gas extraction system. Excavation and off-site disposal was selected for Sites 7, 10, 17, Building 752, and AOC 33. In addition, institutional controls were selected for Sites 2, 5, 19, Small Arms Range, and AOC 4. All other facilities require no further action. The purchaser of sites with institutional controls as the selected remedy will be required to enter into a land use covenant with DTSC as an Air Force condition of sale.

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE2
Completed Document Type: Operation and Maintenance Report
Completed Date: 12/07/2006
Comments: Secondary document accepted.

Completed Area Name: BASEWIDE
Completed Sub Area Name: B752
Completed Document Type: Remedial Action Completion Report
Completed Date: 10/03/2013

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Decommissioning Workplan
Completed Date: 12/11/2013
Comments: Not reported

Completed Area Name: CBA
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/11/2007
Comments: DTSC approved the report on 1/11/2007

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K3
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/13/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: UTILS
Completed Document Type: Finding of Suitability to Lease
Completed Date: 02/16/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-K1
Completed Document Type: Finding of Suitability to Lease
Completed Date: 02/16/1995
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE1
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 10/02/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: EXSI
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/02/1996
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: Ste 12
Completed Document Type: Feasibility Study Report
Completed Date: 10/03/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P E-1
Completed Document Type: Finding of Suitability to Lease
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: CBA

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Sub Area Name: CBA-S
Completed Document Type: * Remedial or Removal Design
Completed Date: 12/07/1994
Comments: DES - CBA-S -- Design for contaminated soils within the Centra Base Area (CBA). This design describes the engineering design components of remedial actions at Building 658 and IRP Site 9 located in the TCE source areas of the CBA-OU. The selected remedies consist of excavation and exsitu vapor extraction for TCE impacted soils at Building 658 and excavation and off-site stabilization and disposal for TCE and chromium impacted soils from IRP Site 9. Approximate cost = 300,000; funding = BRAC.

Completed Area Name: OU3
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/01/1994
Comments: PEA - OU3 -- DTSC approved the PEA on December 1, 1994. This PEA resulted in the identification of 19 locations with sufficient evidence of contamination that warranted more thorough investigation of the extent of contamination. Approximate cost = 1,100,000; funding = BRAC.

Completed Area Name: CBA
Completed Sub Area Name: CBAGW
Completed Document Type: * Remedial or Removal Design
Completed Date: 10/07/1994
Comments: DES - CBAGW -- MODIFICATION - The design consists of modifications to the existent Central Base Area (CBA) pump and treat system to increase its capacity from 200 gallons per minute (gpm) to 400 gpm. The modifications are: addition of four new extraction wells and three new injection wells; replace 4-inch piping with 6-inch piping as required inside the treatment system area; replace existing centrifugal transfer pumps with larger pumps; operate the liquid phase carbon units in a parallel mode; addition of new in-line filters; addition of a new in-line sand separator; and installation of pipeline from the new extraction wells and injection wells to the treatment plant area; install new pipeline from new injection wells and tie-in to the existing injection well pipeline. Approximate cost = 336,000; funding = BRAC.

Completed Area Name: CBA
Completed Sub Area Name: CBAGW
Completed Document Type: * Remedial or Removal Design
Completed Date: 09/21/1994
Comments: DES - CBAGW -- Central Base Area Groundwater (CBAGW) pump and treat system. The pump and treat system includes a new extraction well (to supplement the two existing wells), eight injection wells, a groundwater treatment plant, and pipelines to transport the water among the wells and the treatment plant. The groundwater will be treated by packed tower air strippers. As mandated in the Record of Decision dated November 24, 1993, this system will "maintain hydraulic control to the extent possible of the plume while extracting contaminated groundwater, and reinjecting treated groundwater into the contaminant plume or the clean portion of the aquifer." Approximate cost = $700,000; funding = BRAC.

Completed Area Name: Sites With No Operable Unit

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Sub Area Name: IRP15
Completed Document Type: Feasibility Study Report
Completed Date: 06/05/1994
Comments: RI/FS - IRP15 -- DTSC approved the Remediation Investigation/Feasibility Study for IRP15 on June 5, 1994. Approximate cost = $4,000,000; funding = BRAC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Community Environmental Response Facilitation Act
Completed Date: 04/19/1994
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2006
Comments: Completed the review of 10/05 quarterly groundwater monitoring report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/30/2006
Comments: Completed the review of 12th annual groundwater monitoring report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/30/2006
Comments: Completed the review of 2005 offbase water supply annual report

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 06/30/2006
Comments: Completed Site 2 annual O&M report

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 06/30/2006
Comments: Completed the review of 1st quarter 2006 Site 2 landfill gas O&M report

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 03/27/2006
Comments: The Air Force removed 19,000 cubic yards of dioxin contaminated soil. Of this soil, 2,700 cubic yards were classified as California hazardous wastes and disposed at a permitted hazardous waste facility. The remaining soil was transported to a nearby city disposal facility to be used as landfill cover. The Air Force took 18 confirmation soil samples and calculated the post-removal risk to human health and sensitive burrowing animals. The results indicated that the combined child/adult excess cancer risk is 1.7x10-6. The non cancer hazard index for children is 1.2x10-2 at the golf course area

NORTON AIR FORCE BASE (Continued) **S101272838**

and 3.3x10-2 at the habitat area. For adults, the non-cancer hazard index for the golf course portion is 3.8x10-4 and 1.1x10-2 for the habitat area

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2005
Comments: completed

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2005
Comments: completed

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: WATER
Completed Document Type: Finding of Suitability to Lease
Completed Date: 09/26/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-L
Completed Document Type: Environmental Baseline Survey
Completed Date: 07/21/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-F
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 01/20/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-F
Completed Document Type: Environmental Baseline Survey
Completed Date: 12/03/1996
Comments: Not reported

Completed Area Name: OU2&3
Completed Sub Area Name: BBP&T
Completed Document Type: Operation and Maintenance Plan
Completed Date: 10/28/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: EXPOR
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 09/10/1996
Comments: Not reported

Completed Area Name: CBA
Completed Sub Area Name: SVECB
Completed Document Type: Operation and Maintenance Plan
Completed Date: 08/22/1996
Comments: Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P E-3
Completed Document Type: Finding of Suitability to Lease
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P E-3
Completed Document Type: Environmental Baseline Survey
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P E-2
Completed Document Type: Finding of Suitability to Lease
Completed Date: 04/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: P-I1
Completed Document Type: Finding of Suitability to Transfer
Completed Date: 02/10/1999
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: ste10
Completed Document Type: Removal Action Completion Report
Completed Date: 10/29/1998
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: IWL
Completed Document Type: Removal Action Completion Report
Completed Date: 11/20/2014
Comments: report approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 05/01/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 08/01/2003
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 07/05/2018
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: Ste 17
Completed Document Type: Site Characterization Workplan

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Date: 03/23/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 10/07/2010
Comments: finalized

Completed Area Name: BASEWIDE
Completed Sub Area Name: AOC 33
Completed Document Type: Site Characterization Workplan
Completed Date: 03/23/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 09/29/2015
Comments: finalized

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: IWTP
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/12/2006
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE5
Completed Document Type: Land Use Restriction
Completed Date: 09/17/2007
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: Site 2
Completed Document Type: Land Use Restriction
Completed Date: 09/20/2007
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: SAR
Completed Document Type: Land Use Restriction
Completed Date: 09/17/2007
Comments: Not reported

Completed Area Name: BASEWIDE
Completed Sub Area Name: STE19
Completed Document Type: Land Use Restriction
Completed Date: 08/31/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 02/20/2007
Comments: Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Completed Area Name: BASEWIDE
Completed Sub Area Name: AOC 33
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 10/07/2010
Comments: Finalized

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE5
Completed Document Type: Site Characterization Report
Completed Date: 09/06/2016
Comments: secondary document on emerging contaminants, no further action required.

Completed Area Name: BASEWIDE
Completed Sub Area Name: SITE5
Completed Document Type: * Order
Completed Date: 04/14/1995
Comments: BUILDING 658 CLEANUP OF SHALLOW SUBSTANCE TRICHLOROETHYLENE (TCE) CONTAMINATED SOILS BY EX-SITU SOIL VAPOR EXTRATION. THIS ACTIVITY IS THE ONE OF THE SELECTED REMEDIES DESCRIBED IN THE NOVEMBER 24, 1993, CENTRAL BASE AREA OPERABLE UNIT RECORD OF DECISION (ROD), SECTION 9.2.2. THE NOVEMBER 18, 19 ENGINEERING DESIGN REPORT DESCRIBED THE REMEDIAL ACTIONS TO BE IMPLEMENTED AT BUILDING 658. THESE ACTIONS CONSIST OF: EXCAVATION OF TCE-CONTAMINATED SOIL AT BUILDING 658, AND REMOVAL OF A SUMP AND ASSOCIATION APPURTENANCES; TRANSPORT OF THE SOIL FROM BUILDING 658 TO A ON-BASE LOCATION; CONSTRUCTION OF AN EX-SITU TREATMENT CELL AND VAPOR ABATEMENT SYSTEM TO REMEDIATE THE EXCAVATED SOIL USING VAPOR EXTRATION; OPERATION OF THE EX-SITU TREATMENT SYSTEM UNTIL TCE CONCENTRATIONS ARE BELOW LEVELS PRESCRIBED IN THE ROD; AND SITE RESTORATION, INCLUDING BACKFILL OF THE EXCAVATION AND RESURFACING OF THE DISTURBED AREA. RESULT OF THE CONFIRMATION SAMPLING DID NOT DETECT ANY CONCENTRATIONS ABOVE THE CLEANUP STANDARD (5UG/L IN LEACHATE ANALYZED BY THE TOXIC CHARACTERISTICS LEACHING PROCEDURE (TCP)). ORDER Installation Restoration Program (IRP) Site 5 is the former fire training area. Soils at IRP Site 5 are contaminated with hydrocarbons, dioxins, metals, and polynuclear aromatic hydrocarbons (PAHs). The proposed remedial actions will meet industrial reuse and groundwater protection based Target Cleanup Goals (TCGs) and will consist of: - Soil Vapor Extraction (SVE), including activated carbon treatment of extracted vapors, to reduce hydrocarbon contam- ination in site soils to below groundwater protection based TCGs; - Excavation and offsite landfill disposal of soils contain- ing dioxin concentrations in excess of industrial reuse TCGs at a licensed Subtitle C disposal facility permitted to accept dioxin-contaminated soils; - Excavation, stabilization, and transport to IRP Site 2 Landfill (to be used as fill material for landfill closure cap) of metal- and PAH-contaminated soil above the indus- trial reuse TCGs; - Excavation and transport to IRP Site 2 (without stabil- ization), of metal- and PAH-contaminated soils above the industrial reuse TCGs and classified as California nonhazardous. VOLUME TREATED, STABILIZED, OR DISPOSED: Approximately 6000 cubic yards APPROXIMATE COST: $500,000

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: GW
Completed Document Type: * CEQA
Completed Date: 11/25/1991

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments:	A Negative Declaration was filed with the State clearing House on 10/5/91. A notice if determination was filed with the San Bernardino County Clerk for the pump & treat system for the central base area.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Federal Facility Agreement
Completed Date:	06/29/1989
Comments:	Federal Facility Agreement (FFA) between Air Force, USEPA, and DHS Toxic Substances Control Division was signed.
Completed Area Name:	BASEWIDE
Completed Sub Area Name:	SAR
Completed Document Type:	Site Characterization Report
Completed Date:	09/07/2016
Comments:	Air Force deemed this document to be final. DTSC has outstanding comments
Completed Area Name:	BASEWIDE
Completed Sub Area Name:	SITE5
Completed Document Type:	Other Report
Completed Date:	01/29/2008
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation and Maintenance Report
Completed Date:	03/07/2007
Comments:	The Offbase Water Supply Contingency Annual Report has been incorporated into the Basewide annual groundwater monitoring report and was reviewed together.
Completed Area Name:	CBA
Completed Sub Area Name:	CBAOU
Completed Document Type:	Other Report
Completed Date:	01/11/2007
Comments:	The decommissioning of Central Base Area and Base Boundary groundwater pump and treat systems performed in five phases began in December 2001 and completed in February 2006. The final report was accepted on Jan 11, 2007.
Completed Area Name:	CBA
Completed Sub Area Name:	Not reported
Completed Document Type:	5 Year Review Reports
Completed Date:	01/30/2006
Comments:	DTSC concurred with the findings in the 2nd 5-year review report.
Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	Parcels B1C & E3E
Completed Document Type:	Finding of Suitability to Transfer
Completed Date:	09/26/2007
Comments:	Both the FOST & LUC are finalized.
Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	PCL-C
Completed Document Type:	Finding of Suitability to Transfer
Completed Date:	10/24/2007

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments:	DTSC approved the property transfer with 2 SLUCs
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Participation Plan / Community Relations Plan
Completed Date:	06/16/2009
Comments:	accepted
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	03/10/2016
Comments:	next 5-yr review will touch on this issue again to make sure it is not of an environmental concern
Completed Area Name:	BASEWIDE
Completed Sub Area Name:	SAR
Completed Document Type:	Removal Action Completion Report
Completed Date:	08/05/2020
Comments:	Not reported
Completed Area Name:	BASEWIDE
Completed Sub Area Name:	Site 2
Completed Document Type:	Operation and Maintenance Report
Completed Date:	08/05/2020
Comments:	secondary document documenting field work at Site 2, DTSC concurrence emailed
Future Area Name:	BASEWIDE
Future Sub Area Name:	AOC 33
Future Document Type:	Removal Action Completion Report
Future Due Date:	2023
Future Area Name:	BASEWIDE
Future Sub Area Name:	Not reported
Future Document Type:	Site Characterization Report
Future Due Date:	2022
Future Area Name:	BASEWIDE
Future Sub Area Name:	Not reported
Future Document Type:	5 Year Review Reports
Future Due Date:	2024
Future Area Name:	BASEWIDE
Future Sub Area Name:	AOC 33
Future Document Type:	Remedial Action Completion Report
Future Due Date:	2023
Future Area Name:	BASEWIDE
Future Sub Area Name:	Not reported
Future Document Type:	Record of Decision - Amendment
Future Due Date:	2023
Future Area Name:	BASEWIDE
Future Sub Area Name:	Not reported
Future Document Type:	Remedial Investigation Report
Future Due Date:	2023
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2024
Schedule Area Name:	BASEWIDE

NORTON AIR FORCE BASE (Continued) **S101272838**

Schedule Sub Area Name: Ste 17
Schedule Document Type: Removal Action Completion Report
Schedule Due Date: 04/12/2022
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: 5 Year Review Reports
Schedule Due Date: 04/23/2022
Schedule Revised Date: Not reported

Calsite:
Name: Norton Air Force Base
Address: 2,208 ACRES;58 MI EA OF LOS ANGELES, CA
City: SAN BERNARDINO
Region: GLENDALE
Facility ID: 36970004
Facility Type: CLOSE
Type: CLOSED MILITARY BASE
Branch: SO
Branch Name: OMF-SOUTHERN CALIF
File Name: Not reported
State Senate District: 05011986
Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
NPL: Listed
SIC Code: 97
SIC Name: NATIONAL SECURITY/INTERNATIONAL AFFAIRS
Access: Controlled
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: SNIOU
Supervisor Responsible for Site: Not reported
Region Water Control Board: SA
Region Water Control Board Name: SANTA ANA
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 64
State Senate District Code: 37
Facility ID: 36970004
Activity: FOST
Activity Name: FINDING OF SUITABILITY TO TRANSFER
AWP Code: E-2A
Proposed Budget: 0
AWP Completion Date: 10161998
Revised Due Date: Not reported
Comments Date: 10161998
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0

NORTON AIR FORCE BASE (Continued) **S101272838**

Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-L
Proposed Budget:	0
AWP Completion Date:	08301995
Revised Due Date:	Not reported
Comments Date:	08301995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-N
Proposed Budget:	0
AWP Completion Date:	02101997
Revised Due Date:	Not reported
Comments Date:	02101997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	P-K3
Proposed Budget:	0
AWP Completion Date:	05051995
Revised Due Date:	Not reported
Comments Date:	05051995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	UTILS
Proposed Budget:	0
AWP Completion Date:	02161995
Revised Due Date:	Not reported
Comments Date:	02161995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	P-K1
Proposed Budget:	0
AWP Completion Date:	02161995
Revised Due Date:	Not reported
Comments Date:	02161995

NORTON AIR FORCE BASE (Continued) **S101272838**

Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	7.60000
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	CBA-S
Proposed Budget:	0
AWP Completion Date:	12071994
Revised Due Date:	Not reported
Comments Date:	12071994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	OU3
Proposed Budget:	0
AWP Completion Date:	12011994
Revised Due Date:	Not reported
Comments Date:	12011994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	CBAGW
Proposed Budget:	0
AWP Completion Date:	10071994
Revised Due Date:	Not reported
Comments Date:	10071994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	CBAGW
Proposed Budget:	0
AWP Completion Date:	09211994
Revised Due Date:	Not reported
Comments Date:	09211994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS

NORTON AIR FORCE BASE (Continued) **S101272838**

Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	IRP15
Proposed Budget:	0
AWP Completion Date:	06051994
Revised Due Date:	Not reported
Comments Date:	06051994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	CERFA
Activity Name:	COMMUNITY ENVIRONMENTAL RESPONSE FACILITATION ACT
AWP Code:	NAFB
Proposed Budget:	0
AWP Completion Date:	04191994
Revised Due Date:	Not reported
Comments Date:	04191994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	BWEBS
Activity Name:	BASEWIDE ENVIRONMENTAL BASELINE SURVEY
AWP Code:	NAFB
Proposed Budget:	0
AWP Completion Date:	12231993
Revised Due Date:	Not reported
Comments Date:	12231993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	CBAOU
Proposed Budget:	0
AWP Completion Date:	02051993
Revised Due Date:	Not reported
Comments Date:	02051993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	12021992
Revised Due Date:	Not reported
Comments Date:	12021992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	DESIGN AND CONSTRUCTION OF A SYSTEM TO EXTRACT AND TREAT

NORTON AIR FORCE BASE (Continued) **S101272838**

	CONTAMINATEDGROUNDWATER, AND REINJECT CLEAN WATER TO THE AQUIFER.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FRIFS
Activity Name:	FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	08121991
Revised Due Date:	Not reported
Comments Date:	08121991
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	B#763
Proposed Budget:	0
AWP Completion Date:	06271991
Revised Due Date:	Not reported
Comments Date:	06271991
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	6600
Liquids Treated (Gals):	6600
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	APPROXIMATELY 6,600 CY OF SOIL WERE REMOVED & TREATED BEFORE DISPOSALTO A CLASS III LANDFILL.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	PPP
Activity Name:	PUBLIC PARTICIPATION PLAN

NORTON AIR FORCE BASE (Continued) **S101272838**

AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	01301990
Revised Due Date:	Not reported
Comments Date:	01301990
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	STE10
Proposed Budget:	0
AWP Completion Date:	11202003
Revised Due Date:	Not reported
Comments Date:	11202003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	DEED
Activity Name:	DEED RESTRICTIONS
AWP Code:	SITE2
Proposed Budget:	0
AWP Completion Date:	06302007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP

NORTON AIR FORCE BASE (Continued) **S101272838**

Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	STE10
Proposed Budget:	0
AWP Completion Date:	01272004
Revised Due Date:	Not reported
Comments Date:	01272004
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	SSWR
Proposed Budget:	0
AWP Completion Date:	08311999
Revised Due Date:	Not reported
Comments Date:	08311999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	C1
Proposed Budget:	0
AWP Completion Date:	08301999
Revised Due Date:	Not reported
Comments Date:	08301999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	PCL-C
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	IRP-2
Proposed Budget:	0
AWP Completion Date:	07211999

NORTON AIR FORCE BASE (Continued) **S101272838**

Revised Due Date:	Not reported
Comments Date:	07211999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	180
Liquids Treated (Gals):	0
Action Included Capping:	X
Well Decommissioned:	X
Action Included Fencing:	X
Removal Action Certification:	N
Activity Comments:	141,800 CUBIC YARDS WERE CONSOLIDATED INTO THE LANDFILL.
For Commercial Reuse:	0
For Industrial Reuse:	15
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	PL-C1
Proposed Budget:	0
AWP Completion Date:	06151999
Revised Due Date:	Not reported
Comments Date:	06151999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SAR
Proposed Budget:	0
AWP Completion Date:	06091999
Revised Due Date:	Not reported
Comments Date:	06091999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	11478
Liquids Treated (Gals):	11478

NORTON AIR FORCE BASE (Continued) **S101272838**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	A TOTAL OF 11,478 TONS OF SOIL WAS EXCAVATED AND PROCESSED AT IRP SITE 2.
For Commercial Reuse:	0.50000
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-I1
Proposed Budget:	0
AWP Completion Date:	02101999
Revised Due Date:	Not reported
Comments Date:	02101999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	IRP10
Proposed Budget:	0
AWP Completion Date:	10291998
Revised Due Date:	Not reported
Comments Date:	10291998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	116
Liquids Treated (Gals):	116
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	APPROXIMATELY 116 CUBIC YARDS OF POTENTIALLY HAZARDOUS WASTE WAS EXCAVATED AND DISPOSED OFF-SITE.
For Commercial Reuse:	0
For Industrial Reuse:	3

NORTON AIR FORCE BASE (Continued) **S101272838**

For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	AOC70
Proposed Budget:	0
AWP Completion Date:	10291998
Revised Due Date:	Not reported
Comments Date:	10291998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	1632
Liquids Treated (Gals):	1632
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	APPROXIMATELY 1632 CUBIC YARDS OF MATERIAL WAS EXCAVATED, TREATED ANDDISPOSED OFF-SITE.
For Commercial Reuse:	0
For Industrial Reuse:	0.25000
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	BSWD
Proposed Budget:	0
AWP Completion Date:	06232003
Revised Due Date:	Not reported
Comments Date:	06232003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	E-1
Proposed Budget:	0
AWP Completion Date:	10161998

NORTON AIR FORCE BASE (Continued) **S101272838**

Revised Due Date:	Not reported
Comments Date:	10161998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	STE17
Proposed Budget:	0
AWP Completion Date:	05071998
Revised Due Date:	Not reported
Comments Date:	05071998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SITE2
Proposed Budget:	0
AWP Completion Date:	12291997
Revised Due Date:	Not reported
Comments Date:	12291997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	SITE2
Proposed Budget:	0
AWP Completion Date:	12291997
Revised Due Date:	Not reported
Comments Date:	12291997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P1-3A
Proposed Budget:	0
AWP Completion Date:	04231998
Revised Due Date:	Not reported
Comments Date:	04231998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SITE1
Proposed Budget:	0
AWP Completion Date:	12291997
Revised Due Date:	Not reported
Comments Date:	12291997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	5500
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	A TOTAL OF APPROXIMATELY 20,900 TONS OF SOILS EXCEEDING CLEANUP LEVELS WERE EXCAVATED AND DISPOSED OF OFF-BASE.
For Commercial Reuse:	0
For Industrial Reuse:	0.60000
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	ST5SV
Proposed Budget:	0
AWP Completion Date:	06091999
Revised Due Date:	Not reported
Comments Date:	06091999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	6000
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	189,000 SQUARE FEET OF VAPORS TREATED WHICH RESULTED IN 22,556 LBS OFVOLATILE AND SEMI-VOLATILE ORGANICS BEING EXTRACTED FROM THE SUBSUR-FACE.
For Commercial Reuse:	1.50000
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	ST5SO
Proposed Budget:	0
AWP Completion Date:	06091999

NORTON AIR FORCE BASE (Continued) **S101272838**

Revised Due Date:	Not reported
Comments Date:	06091999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	25694
Liquids Treated (Gals):	25694
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	TOTAL 25,694 TONS TREATED AND DISPOSED.
For Commercial Reuse:	0
For Industrial Reuse:	1.50000
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-E2
Proposed Budget:	0
AWP Completion Date:	06021997
Revised Due Date:	Not reported
Comments Date:	06021997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-E1
Proposed Budget:	0
AWP Completion Date:	06021997
Revised Due Date:	Not reported
Comments Date:	06021997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	6AOCS
Proposed Budget:	0
AWP Completion Date:	06251997
Revised Due Date:	Not reported
Comments Date:	06251997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	2.40000
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	6AOCS
Proposed Budget:	0
AWP Completion Date:	06251997
Revised Due Date:	Not reported
Comments Date:	06251997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	AOC73
Proposed Budget:	0
AWP Completion Date:	06231997
Revised Due Date:	Not reported
Comments Date:	06231997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	REMOVED 2,000 POUNDS. WHICH IS APPROXIMATELY .89 CU YARDS
For Commercial Reuse:	0
For Industrial Reuse:	6.70000
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	AOC38
Proposed Budget:	0
AWP Completion Date:	06191997
Revised Due Date:	Not reported
Comments Date:	06191997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	1603
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	2 ACRES OF LAND RETURNED / RELEASED FOR REUSE.
For Commercial Reuse:	0
For Industrial Reuse:	2
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	AOC37
Proposed Budget:	0
AWP Completion Date:	06191997
Revised Due Date:	Not reported
Comments Date:	06191997
Est Person-Yrs to complete:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	8925
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	2 ACRES OF LAND RETURNED / RELEASED FOR REUSE.
For Commercial Reuse:	0
For Industrial Reuse:	2
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SITE8
Proposed Budget:	0
AWP Completion Date:	06191997
Revised Due Date:	Not reported
Comments Date:	06191997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	1533
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	1.5 ACRES OF LAND RETURNED / RELEASED FOR REUSE.
For Commercial Reuse:	0
For Industrial Reuse:	1.50000
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	STE14
Proposed Budget:	0
AWP Completion Date:	06271996
Revised Due Date:	Not reported
Comments Date:	06271996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SIT13
Proposed Budget:	0
AWP Completion Date:	06191997
Revised Due Date:	Not reported
Comments Date:	06191997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	3290
Liquids Treated (Gals):	3040
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	0.35 ACRES OF LAND RETURNED/RELEASED FOR REUSE.
For Commercial Reuse:	0
For Industrial Reuse:	0.35000
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-E4
Proposed Budget:	0
AWP Completion Date:	04181997
Revised Due Date:	Not reported
Comments Date:	04181997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER

NORTON AIR FORCE BASE (Continued) **S101272838**

AWP Code:	P-I1A
Proposed Budget:	0
AWP Completion Date:	04181997
Revised Due Date:	Not reported
Comments Date:	04181997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	B1234
Proposed Budget:	0
AWP Completion Date:	10151997
Revised Due Date:	Not reported
Comments Date:	10151997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-A
Proposed Budget:	0
AWP Completion Date:	10151997
Revised Due Date:	Not reported
Comments Date:	10151997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP

NORTON AIR FORCE BASE (Continued) **S101272838**

Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	SIT20
Proposed Budget:	0
AWP Completion Date:	07231996
Revised Due Date:	Not reported
Comments Date:	07231996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-K1
Proposed Budget:	0
AWP Completion Date:	02101997
Revised Due Date:	Not reported
Comments Date:	02101997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	NCO-H
Proposed Budget:	0
AWP Completion Date:	02081997
Revised Due Date:	Not reported
Comments Date:	02081997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	OFFCR
Proposed Budget:	0
AWP Completion Date:	02081997
Revised Due Date:	Not reported
Comments Date:	02081997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	27
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-K4
Proposed Budget:	0
AWP Completion Date:	02101997

NORTON AIR FORCE BASE (Continued) **S101272838**

Revised Due Date:	Not reported
Comments Date:	02101997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	16.40000
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-K2
Proposed Budget:	0
AWP Completion Date:	02101997
Revised Due Date:	Not reported
Comments Date:	02101997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	4.70000
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-J1
Proposed Budget:	0
AWP Completion Date:	12181996
Revised Due Date:	Not reported
Comments Date:	12181996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	1.80000
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-I3
Proposed Budget:	0
AWP Completion Date:	02101997
Revised Due Date:	Not reported
Comments Date:	02101997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	111
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-I2
Proposed Budget:	0
AWP Completion Date:	02101997
Revised Due Date:	Not reported
Comments Date:	02101997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	57
For Residential Reuse:	0
Unknown Type:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-K3
Proposed Budget:	0
AWP Completion Date:	02101997
Revised Due Date:	Not reported
Comments Date:	02101997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	2.20000
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-H
Proposed Budget:	0
AWP Completion Date:	02101997
Revised Due Date:	Not reported
Comments Date:	02101997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	19
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P-F
Proposed Budget:	0
AWP Completion Date:	01201997
Revised Due Date:	Not reported
Comments Date:	01201997
Est Person-Yrs to complete:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	BBP&T
Proposed Budget:	0
AWP Completion Date:	10281996
Revised Due Date:	Not reported
Comments Date:	10281996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	EXPOR
Proposed Budget:	0
AWP Completion Date:	09101996
Revised Due Date:	Not reported
Comments Date:	09101996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	SVECB
Proposed Budget:	0
AWP Completion Date:	08221996
Revised Due Date:	Not reported
Comments Date:	08221996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	P E-3
Proposed Budget:	0
AWP Completion Date:	04081996
Revised Due Date:	Not reported
Comments Date:	04081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE

NORTON AIR FORCE BASE (Continued) **S101272838**

AWP Code:	P E-2
Proposed Budget:	0
AWP Completion Date:	04081996
Revised Due Date:	Not reported
Comments Date:	04081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	P E-1
Proposed Budget:	0
AWP Completion Date:	04081996
Revised Due Date:	Not reported
Comments Date:	04081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	WATER
Proposed Budget:	0
AWP Completion Date:	09241996
Revised Due Date:	Not reported
Comments Date:	09241996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP

NORTON AIR FORCE BASE (Continued) **S101272838**

Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	P-N
Proposed Budget:	0
AWP Completion Date:	06301996
Revised Due Date:	Not reported
Comments Date:	06301996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P M
Proposed Budget:	0
AWP Completion Date:	04081996
Revised Due Date:	Not reported
Comments Date:	04081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOST
Activity Name:	FINDING OF SUITABILITY TO TRANSFER
AWP Code:	P G-2
Proposed Budget:	0
AWP Completion Date:	04081996
Revised Due Date:	Not reported
Comments Date:	04081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	OWSCP
Proposed Budget:	0
AWP Completion Date:	07031996
Revised Due Date:	Not reported
Comments Date:	07031996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	STE13
Proposed Budget:	0
AWP Completion Date:	06271996

NORTON AIR FORCE BASE (Continued) **S101272838**

Revised Due Date:	Not reported
Comments Date:	06271996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	BIO-T
Proposed Budget:	0
AWP Completion Date:	01291997
Revised Due Date:	Not reported
Comments Date:	01291997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	19300
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	CONTAMINATED SOIL EXCAVATED FROM FORMER UNDERGROUND STORAGE TANK (UST) LOCATIONS WERE TREATED ON BASE FROM SEPTEMBER 1995 TO DECEMBER 1996 USING BIOREMEDIATION.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	IWTP
Proposed Budget:	0
AWP Completion Date:	10241996
Revised Due Date:	Not reported
Comments Date:	10241996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE

NORTON AIR FORCE BASE (Continued) **S101272838**

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	9.8 TONS OF NON-HAZARDOUS SOIL WAS DISPOSED OF, 400 GALLONS OF NON-RCRA HAZARDOUS WASTE SLUDGE, AND 21,800 GALLONS OF NON- HAZARDOUS RINSEATE WATER WERE TREATED.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	STE19
Proposed Budget:	0
AWP Completion Date:	07211997
Revised Due Date:	Not reported
Comments Date:	07211997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	PA1-3
Proposed Budget:	0
AWP Completion Date:	08221996
Revised Due Date:	Not reported
Comments Date:	08221996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	SITE1
Proposed Budget:	0
AWP Completion Date:	10021996
Revised Due Date:	Not reported
Comments Date:	10021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	EXSI
Proposed Budget:	0
AWP Completion Date:	10021996
Revised Due Date:	Not reported
Comments Date:	10021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	10&12
Proposed Budget:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

AWP Completion Date:	10031996
Revised Due Date:	Not reported
Comments Date:	10031996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SITE5
Proposed Budget:	0
AWP Completion Date:	06251997
Revised Due Date:	Not reported
Comments Date:	06251997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	SOILR
Proposed Budget:	0
AWP Completion Date:	07231996
Revised Due Date:	Not reported
Comments Date:	07231996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	OU2&3
Proposed Budget:	0
AWP Completion Date:	08221996
Revised Due Date:	Not reported
Comments Date:	08221996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	47
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SVECB
Proposed Budget:	0
AWP Completion Date:	06211996
Revised Due Date:	Not reported
Comments Date:	06211996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	CONSTRUCTION AND STARTUP OF AN IN-SITU SOIL VAPOR EXTRACTION SYSTEM AT BUILDINGS 673 AND 763, IN THE CENTRAL BASE AREA.
For Commercial Reuse:	0
For Industrial Reuse:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SIT14
Proposed Budget:	0
AWP Completion Date:	06191997
Revised Due Date:	Not reported
Comments Date:	06191997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	420
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	0.05 ACRES OF LAND RETURNED/RELEASED FOR REUSE.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	SITE2
Proposed Budget:	0
AWP Completion Date:	04301996
Revised Due Date:	Not reported
Comments Date:	04301996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	PAR13
Proposed Budget:	0
AWP Completion Date:	03271996
Revised Due Date:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments Date:	03271996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	CBAOU
Proposed Budget:	0
AWP Completion Date:	11241993
Revised Due Date:	Not reported
Comments Date:	11241993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	BBPTS
Proposed Budget:	0
AWP Completion Date:	04021996
Revised Due Date:	Not reported
Comments Date:	04021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	CONSTRUCTION AND STARTUP OF A GOUNDWATER TREATMENT FACILITY LOCATED AT THE SOUTHERN BOUNDARY OF THE BASE. 3 GROUNDWATER EXTRACTION WELLS
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SITE9
Proposed Budget:	0
AWP Completion Date:	04021996
Revised Due Date:	Not reported
Comments Date:	04021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	490
Liquids Treated (Gals):	490
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	APPROXIMATELY 490 CY OF TCE CONTAMINATED SOIL WERE TREATED. AN ESTIMA TED 1,633 CY OF CHROMIUM CONTAMINATED SOIL, AND 914 TONS OF CHROMIUMCONTAMINATED CONCRETE WERE DISPOSED.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	SITE1
Proposed Budget:	0
AWP Completion Date:	02221996
Revised Due Date:	Not reported
Comments Date:	02221996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	DRMO
Proposed Budget:	0
AWP Completion Date:	04021996
Revised Due Date:	Not reported
Comments Date:	04021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	3
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	REMOVAL OF BUILDINGS 964 AND 970, CONCRETE PADS, AND CONTAMINATED SOIL. SOIL CONTAMINATED WITH PETROLEUM HYDROCARBONS AND ARSENIC WERE MANIFESTED TO A LICENSED DISPOSAL FACILITY.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	IRP#S
Proposed Budget:	0
AWP Completion Date:	02021996
Revised Due Date:	Not reported
Comments Date:	02021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	ST 13
Proposed Budget:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

AWP Completion Date:	02021996
Revised Due Date:	Not reported
Comments Date:	02021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	NFA#S
Proposed Budget:	0
AWP Completion Date:	04091996
Revised Due Date:	Not reported
Comments Date:	04091996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	ROAD
Proposed Budget:	0
AWP Completion Date:	10101995
Revised Due Date:	Not reported
Comments Date:	10101995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	FOSL
Activity Name:	FINDING OF SUITABILITY TO LEASE
AWP Code:	WATER
Proposed Budget:	0
AWP Completion Date:	09261995
Revised Due Date:	Not reported
Comments Date:	09261995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	SITE5
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04141995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

NORTON AIR FORCE BASE (Continued) **S101272838**

Unknown Type:	0
Facility ID:	36970004
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	11251991
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	FFA
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06291989
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE10
Proposed Budget:	0
AWP Completion Date:	06302008
Revised Due Date:	Not reported
Comments Date:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	SITE2
Proposed Budget:	0
AWP Completion Date:	06302008
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	36970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	B752
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported

NORTON AIR FORCE BASE (Continued) **S101272838**

Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2,208 ACRES;58 MI EA OF LOS ANGELES, CA
Alternate City,St,Zip:	SAN BERNARDINO, CA 92409
Alternate Address:	I-10 - US 395
Alternate City,St,Zip:	NORTON AFB, CA 92409
Alternate Address:	I-10 - US 395
Alternate City,St,Zip:	SAN BERNARDINO, CA 92409
Alternate Address:	MAIN GATE AT 3RD STREET & 6TH STREET
Alternate City,St,Zip:	SAN BERNARDINO, CA 92409
Alternate Address:	NORTON AIR FORCE BASE
Alternate City,St,Zip:	SAN BERNARDINO, CA 92409
Background Info:	This site is a U.S. Air Force Military Command Base which began o perations in 1942. Norton's original function was to maintain an d repair aircraft. After World War II, the oper- ations were exp anded by providing maintenance, storage, and logistic support for various missile programs. Norton became a Military Airlift Wing in 1966. In 1968, the Aero- space Audiovisual Services establis hed its headquarters at Norton. Past waste management practices associated with base activities include drum burial, hazardous wa ste dispo- sal in unlined pits, storage of leaking drums, leakage of underground storage tanks, and materials spills. The practic es have resulted in significant soil and groundwater contaminatio n. Past disposal practices onsite have caused the release of larg e volumes of fuels, solvents, and luminescent dials and heavy met als to the soil and groundwater. Monitoring wells on the base ar e contaminated with methylene chloride, toluene, benzene and tric hloroethene (TCE). Chemicals found in the soil onsite include oi l and grease, hexavalent chromium, xylene and polychlorinated bip henyls (PCBs). There is a potential for direct worker contact wit h contami- nated onsite soils. Contaminants have migrated into th e soil and groundwater beneath the Base. The City of Riverside's drinking water supply wells are within 500 feet of waste disposa l onsite. Domestic wells owned by the City showed TCE contaminati on and levels of radionuclides above the maximum contaminant leve ls. The site was placed on the NPL on July 22, 1987. On June 29, 1989, EPA, DTSC, and DoD entered into a Federal Facility Agre ement (FFA) to remediate contamination under EPA over- sight. DT SC will support EPA's oversight of the DoD's reme- dial activitie s. The FFA provides funding and will reim- burse the State for a ll reasonable costs incurred during oversight of the IRP activiti es. The FFA has established a procedural framework and schedule for developing, implement- ing, and monitoring appropriate respon se actions at the site. The State has also entered into a Defens e/State Memo- randum of Agreement (DSMOA) with DoD which addresse s State reimbursement.
Comments Date:	12291997
Comments:	and the graded to its original levels. In addition, three new mo
Comments Date:	12291997
Comments:	nitoring wells were installed for monitoring purposes. A Long Ter
Comments Date:	12291997
Comments:	m Ground- water Monitoring plan will be implemented as a result o

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments Date:	12291997
Comments:	f leaving matreials in place.
Comments Date:	12301997
Comments:	RAP - SITE2: As a result of trenching activities and in accordanc
Comments Date:	12301997
Comments:	e with Title 27, California Code of Regulations, the intent of th
Comments Date:	12301997
Comments:	is plan is to upgrade waste management units to closure standards
Comments Date:	12301997
Comments:	established in regulations. This activity is equivalent to a RAP
Comments Date:	12301997
Comments:	since it will cost approxim- ately $ 13,700,000.00. The public a
Comments Date:	12301997
Comments:	nd regulatory agencies have had an opportunity to comment and all
Comments Date:	12301997
Comments:	comments have been adequately addressed by the PRP. Activities w
Comments Date:	12301997
Comments:	hich will take place from February 1998 to December 1998 include:
Comments Date:	12301997
Comments:	landfill gas extraction and treatment, waste consolidation of ap
Comments Date:	12301997
Comments:	proximately 120,000 cubic yards from the northeast, confirmation
Comments Date:	12301997
Comments:	sampling of consolidated material, a monolithic, cover, drainage
Comments Date:	12301997
Comments:	control, groundwater monitoring and long term operation and maint
Comments Date:	12301997
Comments:	enance activities.
Comments Date:	04141995
Comments:	aining area. Soils at IRP Site 5 are contaminated with hydrocarb
Comments Date:	04141995
Comments:	ons, dioxins, metals, and polynuclear aromatic hydrocarbons (PAHs
Comments Date:	06201997
Comments:	sal facility, if hazardous, or to IRP Site 2. Verification sampli
Comments Date:	01091998
Comments:	DES - SITE2: As a result of trenching activities and in accordanc
Comments Date:	01091998
Comments:	e with Title 27, California Code of Regulations, the intent of th
Comments Date:	01091998
Comments:	is plan is to upgrade waste management units to closure standards
Comments Date:	01091998
Comments:	established in regulations. This activity is equivalent to a RAP
Comments Date:	01091998
Comments:	since it will cost approxi- mately $13,700,000.00. The public an
Comments Date:	01091998
Comments:	d regulatory agencies have had an opportunity to comment and all
Comments Date:	01091998
Comments:	comments have been adeguately addressed by the PRP. Activities wh
Comments Date:	01091998
Comments:	ich will take place from February 1998 to December 1998 include:
Comments Date:	01091998
Comments:	landfill gas extraction and treatment, waste consolidation of app
Comments Date:	01091998
Comments:	roximately 120,000 cubic yards from the northeast, confirmation s
Comments Date:	01091998
Comments:	ampling of consolidated material, a monolithic cover, drainage co
Comments Date:	01091998

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments:	ntrol, groundwater monitoring and long term operation and mainten
Comments Date:	01091998
Comments:	ance activities.
Comments Date:	01142005
Comments:	The site may be suitable for unrestricted use.
Comments Date:	01262005
Comments:	Site may be suitable for unrestricted use.
Comments Date:	01272004
Comments:	RAW - STE10: Because of the San Bernadino Kangaroo Rat, the Air F
Comments Date:	01272004
Comments:	orce will trap and relocate the animals and set up fences to prev
Comments Date:	01272004
Comments:	ent burrowing animals from crawling back into the excavation area
Comments Date:	01272004
Comments:	during removal. The Air Force will remove the top two feet of s
Comments Date:	01272004
Comments:	oil and then depending on the presence of ash layers and fieldscr
Comments Date:	01272004
Comments:	eening sampling results to determine whether additional two feet
Comments Date:	01272004
Comments:	of soil will be removed or not. After excavation, the AF will ta
Comments Date:	01272004
Comments:	ke confirmation soil samples and analyze them for dioxins/furans
Comments Date:	01272004
Comments:	and metals. If excessive contamination remains, excavation will
Comments Date:	01272004
Comments:	resume. Once the removal action is complete, the AF will restore
Comments Date:	01272004
Comments:	the site to pre-excavation conditions.
Comments Date:	01301997
Comments:	RA for BIO-T: 19300 cubic yards of soil were treated and
Comments Date:	01301997
Comments:	they will be used as fill for the landfill 2 cap.
Comments Date:	02051993
Comments:	Final FS for the Central Base Area (CBA) OU was approved. The CBA
Comments Date:	02051993
Comments:	OU is OU#1 which addresses groundwater contamination and all sou
Comments Date:	02051993
Comments:	rces.
Comments Date:	02061996
Comments:	RA - DRMO This removal action consisted of the closure of two bui
Comments Date:	02061996
Comments:	ldings used for storage of hazardous waste in accordance with RCR
Comments Date:	02061996
Comments:	A. Three and one quarter cubic yards of soil contaminated with pe
Comments Date:	02061996
Comments:	troleum hydrocarbons and arsenic were also removed and sent to a
Comments Date:	02061996
Comments:	licensed disposal facility. Approximate cost: $450,000.00; fundin
Comments Date:	02061996
Comments:	g: BRAC I
Comments Date:	03111993
Comments:	A public meeting was held at the San Bernardino City Hall to
Comments Date:	03111993
Comments:	receive public comments on the draft Proposed Plan for the
Comments Date:	03111993
Comments:	CBA OU. Public comment period would end 3/18/93. Fact Sht.

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments Date:	03111993
Comments:	and Public Notice went out 2/11/93.
Comments Date:	03121996
Comments:	RA - BBPTS
Comments Date:	03121996
Comments:	This is the one of components of the final remedial action
Comments Date:	03121996
Comments:	for the Central Base Area Operable Unit. The system
Comments Date:	03121996
Comments:	consists of three groundwater extraction wells, a treatment
Comments Date:	03121996
Comments:	plant including pumps, and air stripper, air blower,
Comments Date:	03121996
Comments:	off-gas treatment system, computerized control unit,
Comments Date:	03121996
Comments:	storage tanks, piping, and seven injection wells.
Comments Date:	03121996
Comments:	The system extracts TCE contaminated groundwater at a
Comments Date:	03121996
Comments:	maximum capacity of 2,500 gallons per minute, strips the
Comments Date:	03121996
Comments:	TCE and other volatile organic compounds from the water,
Comments Date:	03121996
Comments:	and reinjects it to the same aquifer to maintain hydraulic
Comments Date:	03121996
Comments:	control of the plume. TCE and other compounds are adsorbed
Comments Date:	03121996
Comments:	in the off-gas treatment system on granular activated
Comments Date:	03121996
Comments:	carbon to comply with air quality standards. Carbon is
Comments Date:	03121996
Comments:	sent to a reclycling facility after is spent.
Comments Date:	03121996
Comments:	The system will extract aproximately 1.1 billion gallons
Comments Date:	03121996
Comments:	of contaminated water per year, and treat about 200 pounds
Comments Date:	03121996
Comments:	of TCE per year. Approximate Cost: $7,500,000.00; BRAC I
Comments Date:	04141995
Comments:	BUILDING 658 CLEANUP OF SHALLOW SUBSTANCE TRICHLOROETHYLENE (TCE)
Comments Date:	04141995
Comments:	CONTAMINATED SOILS BY EX-SITU SOIL VAPOR EXTRATION. THIS ACTIVIT
Comments Date:	04141995
Comments:	Y IS THE ONE OF THE SELECTED REMEDIES DESCRIBED IN THE NOVEMBER 2
Comments Date:	04141995
Comments:	4, 1993, CENTRAL BASE AREA OPERABLE UNIT RECORD OF DECISION (ROD)
Comments Date:	04141995
Comments:	, SECTION 9.2.2. THE NOVEMBER 18, 19 ENGINEERING DESIGN REPORT D
Comments Date:	04141995
Comments:	ESCRIBED THE REMEDIAL ACTIONS TO BE IMPLEMENTED AT BUILDING 658.
Comments Date:	04141995
Comments:	THESE ACTIONS CONSIST OF: EXCAVATION OF TCE-CONTAMINATED SOIL AT
Comments Date:	04141995
Comments:	BUILDING 658, AND REMOVAL OF A SUMP AND ASSOCIATION APPURTENANCES
Comments Date:	04141995
Comments:	; TRANSPORT OF THE SOIL FROM BUILDING 658 TO A ON-BASE LOCATION;
Comments Date:	04141995

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments:	CONSTRUCTION OF AN EX-SITU TREATMENT CELL AND VAPOR ABATEMENT SYS
Comments Date:	04141995
Comments:	TEM TO REMEDIATE THE EXCAVATED SOIL USING VAPOR EXTRATION; OPERAT
Comments Date:	04141995
Comments:	ION OF THE EX-SITU TREATMENT SYSTEM UNTIL TCE CONCENTRATIONS ARE
Comments Date:	04141995
Comments:	BELOW LEVELS PRESCRIBED IN THE ROD; AND SITE RESTORATION, INCLUDI
Comments Date:	04141995
Comments:	NG BACKFILL OF THE EXCAVATION AND RESURFACING OF THE DISTURBED AR
Comments Date:	04141995
Comments:	EA. RESULT OF THE CONFIRMATION SAMPLING DID NOT DETECT ANY CONCEN
Comments Date:	04141995
Comments:	TRATIONS ABOVE THE CLEANUP STANDARD (5UG/L IN LEACHATE ANALYZED B
Comments Date:	04141995
Comments:	Y THE TOXIC CHARACTERISTICS LEACHING PROCEDURE (TCP)). ORDER In
Comments Date:	04141995
Comments:	stallation Restoration Program (IRP) Site 5 is the former fire tr
Comments Date:	04141995
Comments:	). The proposed remedial actions will meet industrial reuse and
Comments Date:	04141995
Comments:	groundwater protection based Target Cleanup Goals (TCGs) and will
Comments Date:	04141995
Comments:	consist of: - Soil Vapor Extraction (SVE), including activated
Comments Date:	04141995
Comments:	carbon treatment of extracted vapors, to reduce hydrocarbon cont
Comments Date:	04141995
Comments:	am- ination in site soils to below groundwater protection based T
Comments Date:	04141995
Comments:	CGs; - Excavation and offsite landfill disposal of soils contai
Comments Date:	04141995
Comments:	n- ing dioxin concentrations in excess of industrial reuse TCGs a
Comments Date:	04141995
Comments:	t a licensed Subtitle C disposal facility permitted to accept dio
Comments Date:	04141995
Comments:	xin-contaminated soils; - Excavation, stabilization, and transp
Comments Date:	04141995
Comments:	ort to IRP Site 2 Landfill (to be used as fill material for landf
Comments Date:	04141995
Comments:	ill closure cap) of metal- and PAH-contaminated soil above the in
Comments Date:	04141995
Comments:	dus- trial reuse TCGs; - Excavation and transport to IRP Site 2
Comments Date:	04141995
Comments:	(without stabil- ization), of metal- and PAH-contaminated soils
Comments Date:	04141995
Comments:	above the industrial reuse TCGs and classified as California nonh
Comments Date:	04141995
Comments:	azardous. VOLUME TREATED, STABILIZED, OR DISPOSED: Approximatel
Comments Date:	04141995
Comments:	y 6000 cubic yards APPROXIMATE COST: $500,000
Comments Date:	05141998
Comments:	RAW - STE17: The remedy which was agreed upon by the Dispute
Comments Date:	05141998
Comments:	Resolution Committee (DRC) was monitoring by installing two
Comments Date:	05141998
Comments:	additional wells. This Work Plan approves the implementation
Comments Date:	05141998
Comments:	of these two wells.

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments Date:	05161995
Comments:	engineering design building 673 and 763 trichloroethylene
Comments Date:	05161995
Comments:	(TCE) source area remediation by in situ vapor extraction.
Comments Date:	05161995
Comments:	this activity is one of the selected remedies described
Comments Date:	05161995
Comments:	in the november 24, 1993 report, central base area operable
Comments Date:	05161995
Comments:	unit record of decision (ROD), sections 9.2.1 and 9.2.2.
Comments Date:	05161995
Comments:	the report describes the design, implementation, and oper-
Comments Date:	05161995
Comments:	ation of the soil vapor extraction system to accomplish the
Comments Date:	05161995
Comments:	remediation of the TCE soil contamination in the areas of
Comments Date:	05161995
Comments:	building 673 and 763. soil vapor extraction wells will be
Comments Date:	05161995
Comments:	installed as mecessary to delineate the TCE plume. A vapor
Comments Date:	05161995
Comments:	extraction and treatment system, including all necessary
Comments Date:	05161995
Comments:	equipment such as blowers, moisture separator, process
Comments Date:	05161995
Comments:	cooler, carbon adsorbers, instrumentation and controls,
Comments Date:	05161995
Comments:	will be constructed.
Comments Date:	05301986
Comments:	This is the date the site was first listed pursuant to
Comments Date:	05301986
Comments:	section 25356.
Comments Date:	06051994
Comments:	RI/FS - IRP15 -- DTSC approved the Remediation Investigation/Feas
Comments Date:	06051994
Comments:	ibility Study for IRP15 on June 5, 1994. Approximate cost = $4,0
Comments Date:	06051994
Comments:	00,000; funding = BRAC.
Comments Date:	06081992
Comments:	Air force began pumping the Central Base Area (CBA) plume as
Comments Date:	06081992
Comments:	a treatability study. The EE/CA showed that the rate of
Comments Date:	06081992
Comments:	pumping of the initial system (200gpm) will have little or
Comments Date:	06081992
Comments:	no effect on the CBA plume, so cannot reasonably be called a
Comments Date:	06081992
Comments:	removal action. The system cost $3 M and consists of two
Comments Date:	06081992
Comments:	extraction and one injection well.
Comments Date:	06101999
Comments:	RA - SAR: Between July and October 1997 Earth Tech, a remedial co
Comments Date:	06101999
Comments:	ntractor hired by the Air Force excavated, treated and disposed o
Comments Date:	06101999
Comments:	f lead contaminated soils down to 2 feet bgs at the base of the S
Comments Date:	06101999

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments:	AR and 4 feet into the impact berm. A total of 11,478 tons of soi
Comments Date:	06101999
Comments:	l was excavated and processed at IRP Site 2. Of this amount 210 t
Comments Date:	06101999
Comments:	ons were bullet fragments and small rocks which were classified a
Comments Date:	06101999
Comments:	s RCRA Hazardous waste and were disposed of offsite at Laidlaw En
Comments Date:	06101999
Comments:	vironmental Services landfill in Westmoreland, California. Appro
Comments Date:	06101999
Comments:	ximately 2,100 tons were stabilized by adding 15% Portland Cement
Comments Date:	06101999
Comments:	and processing through a pug mill. None of the stabilized soil
Comments Date:	06101999
Comments:	met the treatment standard so all of it was sent offsite to Brown
Comments Date:	06101999
Comments:	ing Ferris Industries (BFI) landfill in La Paz, Arizona as a Cali
Comments Date:	06101999
Comments:	fornia hazardous, non-RCRA waste.
Comments Date:	06141999
Comments:	5 YEAR - OU1: The Five Year Review documents that all of the CBA
Comments Date:	06141999
Comments:	OU actions are either complete or underway. This review is a Type
Comments Date:	06141999
Comments:	Ia as the remedy has not achieved ARAR's. The ROD standards for
Comments Date:	06141999
Comments:	groundwater have not been achieved for TCE. From an initial
Comments Date:	06141999
Comments:	concentration of 4,000 ug/l at MW90, the average concentrations
Comments Date:	06141999
Comments:	for the pump and treat system is 2.1 ug/l. This has been deemed
Comments Date:	06141999
Comments:	Operating Properly and Successfully by the regulators. The system
Comments Date:	06141999
Comments:	is expected to reach ROD standards in 16 years. From October 4,
Comments Date:	06141999
Comments:	1995 to April 1997 over 7,500 lbs TCE were extracted from
Comments Date:	06141999
Comments:	component 2, deep soils. Confirmation results indicate that
Comments Date:	06141999
Comments:	approximately 770 lbs are left in place in tight soil formations.
Comments Date:	06141999
Comments:	Component 3, shallow soils, excavated approximately 350 cubic
Comments Date:	06141999
Comments:	yards of TCE contaminated soil and were successfully treated
Comments Date:	06141999
Comments:	using SVE and a carbon air treatment. Component 4, shallow soils
Comments Date:	06141999
Comments:	associated with IRP 9, resulted in 2,123 tons of TCE contaminated
Comments Date:	06141999
Comments:	material and 914 tons of concrete being excavated and disposed
Comments Date:	06141999
Comments:	in a RCRA Subtitle C disposal facility.
Comments Date:	06201997
Comments:	RA - SITE 8: The removal actions involved the excavation and disp
Comments Date:	06201997
Comments:	osal of 1,553 cubic yards of contaminated soil either to an offsi

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments Date:	06201997
Comments:	te disposal facility, if hazardous, or to IRP Site 2. Verificatio
Comments Date:	06201997
Comments:	n sampling was conducted to document that target cleanup goals (T
Comments Date:	06201997
Comments:	CGS) identified in the Final Action Memoran- dum were achieved. S
Comments Date:	06201997
Comments:	ite restoration was also performed. Confirmation surface soil sam
Comments Date:	06201997
Comments:	ples were collected from the excavations to assess if cleanup goa
Comments Date:	06201997
Comments:	ls had been attained, in accordance with the Work Plan. RA - AO
Comments Date:	06201997
Comments:	C37: The removal actions involved the excavation and disposal of
Comments Date:	06201997
Comments:	8,925 cubic yards of contaminated soil either to an offsite dispo
Comments Date:	06201997
Comments:	ng was conducted to document that target cleanup goals (TCGS) ide
Comments Date:	06201997
Comments:	ntified in the Final Action Memoran- dum were achieved. Site rest
Comments Date:	06201997
Comments:	oration was also performed. Confirmation surface soil samples wer
Comments Date:	06201997
Comments:	e collected from the excavations to assess if cleanup goals had b
Comments Date:	06201997
Comments:	een attained, in accordance with the Work Plan. RA - AOC38: The r
Comments Date:	06201997
Comments:	emoval actions involved the excavation and disposal of 1,603 cub
Comments Date:	06201997
Comments:	ic yards of contaminated soil either to an offsite disposal faci
Comments Date:	06201997
Comments:	lity, if hazardous, or to IRP Site 2. Verification sampling was c
Comments Date:	06201997
Comments:	onducted to document that target cleanup goals (TCGS) identified
Comments Date:	06201997
Comments:	in the Final Action Memoran- dum were achieved. Site restoration
Comments Date:	06201997
Comments:	was also performed. Confirmation surface soil samples were collec
Comments Date:	06201997
Comments:	ted from the excavations to assess if cleanup goals had been att
Comments Date:	06201997
Comments:	ained, in accordance with the Work Plan.
Comments Date:	06232003
Comments:	RIFS - BSWD: The BCT has disputed on the implementation of instit
Comments Date:	06232003
Comments:	utional control in 1999. While the resolution state that the AF
Comments Date:	06232003
Comments:	will issue post-ROD primary documents to specify IC requirements,
Comments Date:	06232003
Comments:	the revised BSWD FS denied such a commitment and states that ICs
Comments Date:	06232003
Comments:	are AF's voluntary acts. The implementation of ICs shouldn't be
Comments Date:	06232003
Comments:	overseeing by regulatory agencies. After much discussion EPA, D
Comments Date:	06232003
Comments:	TSC, RWQCB, and the AF agreed to postpone the dispute of IC imple
Comments Date:	06232003

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments:	mentation until the draft ROD is issued. The regulatiory agencie
Comments Date:	06232003
Comments:	s thus approved the proposed remedies for the sites included in t
Comments Date:	06232003
Comments:	his BSWD FS.
Comments Date:	06261997
Comments:	DES - SITE5: The Engineering Design report establishes the
Comments Date:	06261997
Comments:	implementation procedures for the removal action. It also
Comments Date:	06261997
Comments:	establishes procedures for verification of the obtainment of
Comments Date:	06261997
Comments:	the cleanup goals. The procedures for removal involve
Comments Date:	06261997
Comments:	excavation, stabilization and disposal of contaminated soil.
Comments Date:	06261997
Comments:	Not reported
Comments Date:	06261997
Comments:	RIFS - 6AOCS: An Engineering Evaluation/Cost Analysis(EE/CA)
Comments Date:	06261997
Comments:	was prepared to address the remedial action alternatives for
Comments Date:	06261997
Comments:	the six areas of concern. The EE/CA presented an evaluation
Comments Date:	06261997
Comments:	of the technological alternatives for the non-time critical
Comments Date:	06261997
Comments:	remedial action at the AOCs. The EE/CA was submited to a 30
Comments Date:	06261997
Comments:	day public coment period.
Comments Date:	06261997
Comments:	Not reported
Comments Date:	06261997
Comments:	RAW - 6AOCS: Given the low risk to human health, the remedy
Comments Date:	06261997
Comments:	chosen at AOCs 4, 18, 33, 39, and 40 is the placement of
Comments Date:	06261997
Comments:	institutional controls (i.e., deed restrictions). The
Comments Date:	06261997
Comments:	remedy at AOC 70 will be excavation of soil that contains
Comments Date:	06261997
Comments:	contaminants above the soil target cleanup goals and
Comments Date:	06261997
Comments:	disposal at the landfill No 2 on base.
Comments Date:	06291989
Comments:	Federal Facility Agreement (FFA) between Air Force, USEPA, and DH
Comments Date:	06291989
Comments:	S Toxic Substances Control Division was signed.
Comments Date:	06301991
Comments:	Removal Action: Soil removal/treatment Building #763.
Comments Date:	07231999
Comments:	RA-IRP-2: The Removal Action consisted of consolidating 15 acres
Comments Date:	07231999
Comments:	of the original 35 acres unto a 20 acres footprint. Then a four
Comments Date:	07231999
Comments:	foot monolithic cover was placed over the consolidated area which
Comments Date:	07231999
Comments:	included: a landfill gas collection (LFG) system, extensive soil

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments Date:	07231999
Comments:	gas monitoring probes, groundwater monitoring wells, a flare to
Comments Date:	07231999
Comments:	treat gas and condensate and finally was graded and hydro-seeded.
Comments Date:	07231999
Comments:	Monitoring wells which were near the landfill were closed. Wastes
Comments Date:	07231999
Comments:	deemed incompatible with the landfill closure were excavated and
Comments Date:	07231999
Comments:	disposed of off site. These wastes included 16 cubic yards of
Comments Date:	07231999
Comments:	hydrocarbon contaminated soils, 5 roll-off bins of 20 cubic yards
Comments Date:	07231999
Comments:	full of tires, 16 cubic yards of fuel bladders, and 48 cubic
Comments Date:	07231999
Comments:	yards of drilling spoils. The final footprint of the landfill is
Comments Date:	07231999
Comments:	25 acres and is enclosed with a chain link fence.
Comments Date:	07251991
Comments:	US Air Force Military Command Base. Contaminants include
Comments Date:	07251991
Comments:	fuels, TCE, PCBs, xylenes, Cr, methylene chloride, DCB,
Comments Date:	07251991
Comments:	and toluene.
Comments Date:	07291997
Comments:	RAP - SIT19: The response action addressed in the Record of
Comments Date:	07291997
Comments:	Decision consists of a deed restriction that precludes
Comments Date:	07291997
Comments:	access to the soils and prevents uncontrolled releases. This
Comments Date:	07291997
Comments:	remedy was considered to be the most cost effective and
Comments Date:	07291997
Comments:	protective of human health and the environment. The remedy
Comments Date:	07291997
Comments:	is deemed an interim measure and an additional remedy may be
Comments Date:	07291997
Comments:	considered when it is found necessary to remove the concrete
Comments Date:	07291997
Comments:	apron covering the contaminated soil.
Comments Date:	08121991
Comments:	Filed Neg. Dec. with State clearing house in comp. w/ CEQA
Comments Date:	09211994
Comments:	DES - CBAGW -- Central Base Area Groundwater (CBAGW) pump and tre
Comments Date:	09211994
Comments:	at system. The pump and treat system includes a new extraction w
Comments Date:	09211994
Comments:	ell (to supplement the two existing wells), eight injection wells
Comments Date:	09211994
Comments:	, a groundwater treatment plant, and pipelines to transport the w
Comments Date:	09211994
Comments:	ater among the wells and the treatment plant. The groundwater wi
Comments Date:	09211994
Comments:	ll be treated by packed tower air strippers. As mandated in the
Comments Date:	09211994
Comments:	Record of Decision dated November 24, 1993, this system will "mai
Comments Date:	09211994

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments:	ntain hydraulic control to the extent possible of the plume while
Comments Date:	09211994
Comments:	extracting contaminated groundwater, and reinjecting treated gro
Comments Date:	09211994
Comments:	undwater into the contaminant plume or the clean portion of the a
Comments Date:	09211994
Comments:	quifer." Approximate cost = $700,000; funding = BRAC.
Comments Date:	10071994
Comments:	DES - CBAGW -- MODIFICATION - The design consists of modification
Comments Date:	10071994
Comments:	s to the existent Central Base Area (CBA) pump and treat system t
Comments Date:	10071994
Comments:	o increase its capacity from 200 gallons per minute (gpm) to 400
Comments Date:	10071994
Comments:	gpm. The modifications are: addition of four new extraction well
Comments Date:	10071994
Comments:	s and three new injection wells; replace 4-inch piping with 6-inc
Comments Date:	10071994
Comments:	h piping as required inside the treatment system area; replace ex
Comments Date:	10071994
Comments:	isting centrifugal transfer pumps with larger pumps; operate the
Comments Date:	10071994
Comments:	liquid phase carbon units in a parallel mode; addition of new in-
Comments Date:	10071994
Comments:	line filters; addition of a new in-line sand separator; and insta
Comments Date:	10071994
Comments:	llation of pipeline from the new extraction wells and injection w
Comments Date:	10071994
Comments:	ells to the treatment plant area; install new pipeline from new i
Comments Date:	10071994
Comments:	njection wells and tie-in to the existing injection well pipeline
Comments Date:	10071994
Comments:	. Approximate cost = 336,000; funding = BRAC.
Comments Date:	10171991
Comments:	Modified and refiled Neg. Dec. with State Clearing House as
Comments Date:	10171991
Comments:	a result of comments from the City of Riverside regarding
Comments Date:	10171991
Comments:	the presence of radionuclides in the ground water and the
Comments Date:	10171991
Comments:	possible risk of radon contaminating activated carbon filter
Comments Date:	10301998
Comments:	were met. The area was then backfilled with clean fill and grade
Comments Date:	10301998
Comments:	d.
Comments Date:	10301998
Comments:	RA - AOC70: The Removal Action goal for AOC 70 was to excavate an
Comments Date:	10301998
Comments:	d remove soil containing contaminants of concern: PCBs, benzo(a p
Comments Date:	10301998
Comments:	yrene, benzo(b)flouranthene, benzo(k)-flouranthene, TPH-diesel an
Comments Date:	10301998
Comments:	d TPH-gasoline at depths up to 10 feet. Approximately 1632 cubic
Comments Date:	10301998
Comments:	yards of material was excavated, treated and disposed off- site.
Comments Date:	10301998
Comments:	Confirmation samples were then taken, analyzed and the determinat

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments Date:	10301998
Comments:	ion was made that the objectives were met. The area was then back
Comments Date:	10301998
Comments:	filled with clean fill and graded. RA - IRP10: The Removal Acti
Comments Date:	10301998
Comments:	on goal for IRP Site 10 was to excavate and remove soil containin
Comments Date:	10301998
Comments:	g contaminants of concern: lead arsenic and chromium at depths up
Comments Date:	10301998
Comments:	to three feet or one foot below the ash layer, as this was the z
Comments Date:	10301998
Comments:	one of ecological risk. Approx. 224 cubic yards of non-hazardous
Comments Date:	10301998
Comments:	material was disposed of at the base landfill, IRP Site 2 and app
Comments Date:	10301998
Comments:	roximately 116 cubic yards of potentially hazardous waste were ex
Comments Date:	10301998
Comments:	cavated and disposed off site. Confirmation samples were then tak
Comments Date:	10301998
Comments:	en, analyzed and the determina- tion was made that the objectives
Comments Date:	11202003
Comments:	RAP - SITE 10 (Removal action at Site 10 and 12): Following the f
Comments Date:	11202003
Comments:	inalization of Basewide Feasibility Study Report, the AF issued t
Comments Date:	11202003
Comments:	his document for conducting soil removal at these sites to accele
Comments Date:	11202003
Comments:	rate cleanup actions at the former Norton AFB. Because of the end
Comments Date:	11202003
Comments:	angered species, the AF will conduct formal consultation with US
Comments Date:	11202003
Comments:	Fish and Wildlife and obtain permits from California Dept. of Fis
Comments Date:	11202003
Comments:	h and Game. The detected contamination is within four feet of gr
Comments Date:	11202003
Comments:	ound surface, the AF will restrict depth of excavation accordingl
Comments Date:	11202003
Comments:	y. Also, because part of Site 10 is now potions of a golf course
Comments Date:	11202003
Comments:	, part of the golf course will be closed during the removal actio
Comments Date:	11202003
Comments:	n. Excavated soil will be profiled and sent to a regulated landf
Comments Date:	11202003
Comments:	ill. Once the removal action is complete, no further remedial ac
Comments Date:	11202003
Comments:	tions are anticipated at these sites.
Comments Date:	11241993
Comments:	RAP CBAOU 11/24/93 Completion of Proposed Plan and Record of Deci
Comments Date:	11241993
Comments:	sion for the Central Base Area Operable Unit (CBAOU). The propose
Comments Date:	11241993
Comments:	d Plan details the remedies considered and selected to clean grou
Comments Date:	11241993
Comments:	ndwater and soil contamination in the CBA OU, and give the public
Comments Date:	11241993
Comments:	the opportunity to comment on the proposed remedies. The Record
Comments Date:	11241993

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments:	of Decision explains the basis and purpose of the decision made b
Comments Date:	11241993
Comments:	y the Air Force to implement the remedies proposed in the propose
Comments Date:	11241993
Comments:	d plan. Volume Treated, Stabilized, or Disposed: N/A Approximat
Comments Date:	11241993
Comments:	e cost $60,000.00
Comments Date:	11251991
Comments:	A Negative Declaration was filed with the State clearing House on
Comments Date:	11251991
Comments:	10/5/91. A notice if determination was filed with the San Berna
Comments Date:	11251991
Comments:	rdino County Clerk for the pump & treat system for the central ba
Comments Date:	11251991
Comments:	se area.
Comments Date:	12011992
Comments:	Design and construction of a system to extract and treat
Comments Date:	12011992
Comments:	contaminated groundwater and reinject groundwater to the
Comments Date:	12011992
Comments:	aquifer. GW is pumped from two extraction wells located in
Comments Date:	12011992
Comments:	the central base area, treated through an air stripper, and
Comments Date:	12011992
Comments:	reinjected to the aquifer. The two extraction wells are ca-
Comments Date:	12011992
Comments:	pable of producing 200 gal per minute. Each well is equipped
Comments Date:	12011992
Comments:	with a submergible pump and current sensor. The current
Comments Date:	12011992
Comments:	sensor is capable of auto shutoff of the pumps when the
Comments Date:	12011992
Comments:	water levels in the wells are too low. The TCE contaminated
Comments Date:	12011992
Comments:	water is delivered by a double-walled underground pipeline
Comments Date:	12011992
Comments:	to an equalization tank which is present to provide
Comments Date:	12011992
Comments:	constant feed to top of the air stripper tower.
Comments Date:	12011994
Comments:	PEA - OU3 -- DTSC approved the PEA on December 1, 1994. This PEA
Comments Date:	12011994
Comments:	resulted in the identification of 19 locations with sufficient ev
Comments Date:	12011994
Comments:	idence of contamination that warranted more thorough investigatio
Comments Date:	12011994
Comments:	n of the extent of contamination. Approximate cost = 1,100,000;
Comments Date:	12011994
Comments:	funding = BRAC.
Comments Date:	12071994
Comments:	DES - CBA-S -- Design for contaminated soils within the Centra Ba
Comments Date:	12071994
Comments:	se Area (CBA). This design describes the engineering design comp
Comments Date:	12071994
Comments:	onents of remedial actions at Building 658 and IRP Site 9 located
Comments Date:	12071994
Comments:	in the TCE source areas of the CBA-OU. The selected remedies co

NORTON AIR FORCE BASE (Continued) **S101272838**

Comments Date: 12071994
Comments: nsist of excavation and exsitu vapor extraction for TCE impacted
Comments Date: 12071994
Comments: soils at Building 658 and excavation and off-site stabilization a
Comments Date: 12071994
Comments: nd disposal for TCE and chromium impacted soils from IRP Site 9.
Comments Date: 12071994
Comments: Approximate cost = 300,000; funding = BRAC.
Comments Date: 12291997
Comments: RA - SITE1: A removal action was implemented as a result of an Ac
Comments Date: 12291997
Comments: trion Memorandum completed in March 1996. the removal action was
Comments Date: 12291997
Comments: implemented in two phases between November 1996 and July 1997. A
Comments Date: 12291997
Comments: total of approximately 20,900 tons of soils exceeding cleanup lev
Comments Date: 12291997
Comments: els were excavated and disposed of off- base at an appropriate fa
Comments Date: 12291997
Comments: cility. Approximately 3,800 square feet of material above the cle
Comments Date: 12291997
Comments: anup levels were left in place as they were not extractable durin
Comments Date: 12291997
Comments: g the removal effort. The excavation was subsequently back filled
ID Name: EPA IDENTIFICATION NUMBER
ID Value: CA4570024345
ID Name: BEP DATABASE PCODE
ID Value: P42053
Alternate Name: Norton Air Force Base
Alternate Name: Not reported
Special Programs Code: BRAC1
Special Programs Name: BASE REALIGNMENT & CLOSURE, 1ST ROUND
Special Programs Code: DSMOA
Special Programs Name: DEFENSE MEMORANDUM OF AGREEMENT

DEED:
Name: NORTON AIR FORCE BASE
Address: 2,208 ACRES;58 MI EA OF LOS ANGELES, CA
City,State,Zip: SAN BERNARDINO, CA 92409
Envirostor ID: 36970004
Area: BASEWIDE
Sub Area: STE19
Site Type: FEDERAL SUPERFUND
Status: ACTIVE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): Not reported
File Name: Envirostor Land Use Restrictions

Name: NORTON AIR FORCE BASE
Address: 2,208 ACRES;58 MI EA OF LOS ANGELES, CA
City,State,Zip: SAN BERNARDINO, CA 92409
Envirostor ID: 36970004
Area: BASEWIDE
Sub Area: SAR
Site Type: FEDERAL SUPERFUND
Status: ACTIVE

NORTON AIR FORCE BASE (Continued) **S101272838**

Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): Not reported
File Name: Envirostor Land Use Restrictions

Name: NORTON AIR FORCE BASE
Address: 2,208 ACRES;58 MI EA OF LOS ANGELES, CA
City,State,Zip: SAN BERNARDINO, CA 92409
Envirostor ID: 36970004
Area: BASEWIDE
Sub Area: SITE 2
Site Type: FEDERAL SUPERFUND
Status: ACTIVE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): Not reported
File Name: Envirostor Land Use Restrictions

Name: NORTON AIR FORCE BASE
Address: 2,208 ACRES;58 MI EA OF LOS ANGELES, CA
City,State,Zip: SAN BERNARDINO, CA 92409
Envirostor ID: 36970004
Area: BASEWIDE
Sub Area: SITE5
Site Type: FEDERAL SUPERFUND
Status: ACTIVE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): Not reported
File Name: Envirostor Land Use Restrictions

K43 **NORTON AIR FORCE BASE** **CA BOND EXP. PLAN** **S100833333**
SW **NORTON AIR FORCE BASE** **N/A**
1/2-1 **SAN BERNARDINO, CA 92409**
0.697 mi.
3681 ft. **Site 2 of 3 in cluster K**

Relative: **Lower**

Actual: **1138 ft.**

CA BOND EXP. PLAN:
Reponsible Party: FEDERAL FACILITY SITE CLEANUP WORKPLAN
Project Revenue Source Company: Not reported
Project Revenue Source Addr: Not reported
Project Revenue Source City,St,Zip: Not reported
Project Revenue Source Desc: DHS will either enter into an interagency agreement with EPA and DOD or will issue an order to DOD. DHS has budgeted $100,000 for oversight and monitoring of DOD's activities. DHS will seek cost recovery for its direct costs plus staff costs and overhead related to the project.
Site Description: This site is a U.S. Air Force Military Command Base which began operations in 1942. Past waste management practices associated with base activities included drum burial, hazardous waste disposal in unlined pits, storage of leaking drums, leakage of underground storage tanks, and materials spills. The practices have resulted in significant soil and ground water contamination.
Hazardous Waste Desc: Past disposal practices onsite have caused the release of large volumes of fuels, solvents and heavy metals to the soil and ground water. Monitoring wells on the base are contaminated with methylene chloride, toluene, benzene and trichloroethene (TCE). Chemicals found in the soil onsite include oil and grease, hexavalent chromium, xylene and polychlorinated biphenyls (PCBs).
Threat To Public Health & Env: Contaminants have migrated into soil and ground water beneath the Base. Major public drinking supply wells are within 500 feet of waste disposal areas

NORTON AIR FORCE BASE (Continued) **S100833333**

onsite. Drinking water supplies are threatened. In addition, there is a potential for direct worker contact with contaminated soils onsite.

Site Activity Status: The site is currently in Phase II of a four phase installation restoration program (IRP). The IRP was initiated by the Department of Defense (DOD). The site has been proposed for inclusion on the NPL. EPA and DOD are negotiating and agreement to remediate contamination under EPA oversight. DHS will monitor the DOD's remedial activities.

K44 **NORTON A F B BLDG 620** **CA LUST S100676362**
SW **D ST** **CA Toxic Pits N/A**
1/2-1 **SAN BERNARDINO, CA 92409** **CA HIST CORTESE**
0.697 mi.
3681 ft. **Site 3 of 3 in cluster K**

Relative: **Lower**
Actual: **1138 ft.**

LUST REG 8:

Name:	Norton A F B Bldg 620
Address:	D ST
City:	SAN BERNARDINO
Region:	8
County:	San Bernardino
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083602455T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	DEL ROSA DRIVE (6TH ST.)
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	Tank
Global ID:	T0607100327
How Stopped Date:	4/8/1994
Enter Date:	6/16/1994
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	4/8/1994
Enforcement Date:	Not reported
Close Date:	12/26/1996
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	2/27/1995
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	6/16/1994
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	DOD
Latitude:	34.1320986
Longitude:	-117.2952347
MTBE Date:	Not reported

NORTON A F B BLDG 620 (Continued) **S100676362**

Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	JCB
Staff Initials:	CR2
Lead Agency:	Regional Board
Local Agency:	36000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	FIVE 10,000 GAL UNLEADED GASOLINE ONE 600 GAL OIL/WATER SEPARATOR, AND ONE 550 GAL WASTE OIL (ALL INSTALLED 1974, REMOVED 4/1994); FORMERLY A CIVILIAN SERVICE STATION (CONSTRUCTED 1970s). 7 FUELING ISLANDS, VEHICLE SERV. AREA, WASH'G SLAB

TOXIC PITS:

Region:	08
Task #:	68009
Owner:	U.S.A.F. NORTON AFB
1/2 Mi Limit:	Y
Num. of Pits:	1
Cease Discharge Due:	06/30/88
Cease Discharge Complete:	08/10/88
Closure Due:	/ /
Closure Completed:	**/ /**
Status:	CLOSED
Hydro Geological Assessment Report Due:	/ /
Final Hydro Geological Assessment Review Completed:	/ /

HIST CORTESE:

edr_fname:	Norton A F B Bldg 645
edr_fadd1:	D ST
City,State,Zip:	SAN BERNARDINO, CA 92409
Region:	CORTESE
Facility County Code:	36
Reg By:	LTNKA
Reg Id:	083602593T

---

45 South 1/2-1 0.708 mi. 3736 ft.

FORMER SKEET RANGE NO. 1 **UXO** **1024717552**
N/A

SAN BERNARDINO, CA

Relative: Lower

Actual: 1148 ft.

UXO:

DoD Component:	Air Force
Installation Name:	NORTON
Name:	FORMER SKEET RANGE NO. 1
Address:	Not reported
Address 2:	Not reported
City,State,Zip:	SAN BERNARDINO, CA
Site ID:	SR400

FORMER SKEET RANGE NO. 1 (Continued) **1024717552**

Site Type: Small Arms Range
Latitude: 34.097424
Longitude: -117.221660

46
North
1/2-1
0.866 mi.
4573 ft.

CYPRESS II ELEMENTARY SCHOOL **CA ENVIROSTOR** **S107736203**
BASELINE/SOUTH ALLEN STREET **CA SCH** **N/A**
SAN BERNARDINO, CA 92346

Relative:
Higher

Actual:
1179 ft.

ENVIROSTOR:
Name: CYPRESS II ELEMENTARY SCHOOL
Address: BASELINE/SOUTH ALLEN STREET
City,State,Zip: SAN BERNARDINO, CA 92346
Facility ID: 60000047
Status: Inactive - Withdrawn
Status Date: 06/19/2007
Site Code: 404551
Site Type: School Investigation
Site Type Detailed: School
Acres: 10
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 40
Senate: 23
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.12088
Longitude: -117.218
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: SAN BERNARDINO USD-PRPSD CYPRESS II ES
Alias Type: Alternate Name
Alias Name: 404551
Alias Type: Project Code (Site Code)
Alias Name: 60000047
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/22/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/19/2007

CYPRESS II ELEMENTARY SCHOOL (Continued) **S107736203**

Comments: CRU Memo Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inactive Status Letter
Completed Date: 05/10/2005
Comments: DTSC has issued an Inactive Status letter due to delays by the San Bernardino City district.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/16/2005
Comments: Approval of phase 1 ESA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/25/2004
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: CYPRESS II ELEMENTARY SCHOOL
Address: BASELINE/SOUTH ALLEN STREET
City,State,Zip: SAN BERNARDINO, CA 92346
Facility ID: 60000047
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404551
Assembly: 40
Senate: 23
Special Program Status: Not reported
Status: Inactive - Withdrawn
Status Date: 06/19/2007
Restricted Use: NO
Funding: School District
Latitude: 34.12088

CYPRESS II ELEMENTARY SCHOOL (Continued) **S107736203**

Longitude:	-117.218
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	SAN BERNARDINO USD-PRPSD CYPRESS II ES
Alias Type:	Alternate Name
Alias Name:	404551
Alias Type:	Project Code (Site Code)
Alias Name:	60000047
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	07/22/2004
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	06/19/2007
Comments:	CRU Memo Completed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inactive Status Letter
Completed Date:	05/10/2005
Comments:	DTSC has issued an Inactive Status letter due to delays by the San Bernardino City district.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/16/2005
Comments:	Approval of phase 1 ESA.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	08/25/2004
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

L47 **AAC SUPPLY DEPOT** **CA ENVIROSTOR** **S107735784**
SW **N/A**
1/2-1 **SAN BERNARDINO, CA**
0.940 mi.
4962 ft. **Site 1 of 3 in cluster L**

Relative:
Lower

Actual:
1124 ft.

ENVIROSTOR:

Name:	AAC SUPPLY DEPOT
Address:	Not reported
City,State,Zip:	SAN BERNARDINO, CA
Facility ID:	80000878
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Site Code:	Not reported
Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Assembly:	40
Senate:	23
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	34.1
Longitude:	-117.2333
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799F999900
Alias Type:	Federal Facility ID
Alias Name:	J09CA7176
Alias Type:	INPR
Alias Name:	80000878
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inventory Project Report (INPR)
Completed Date:	08/02/1999
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

L48 **NORTON COMM FAC** **CA ENVIROSTOR** **S107736921**
WSW **N/A**
1/2-1 **SAN BERNARDINO, CA**
0.944 mi.
4985 ft. **Site 2 of 3 in cluster L**

Relative:
Lower

Actual:
1123 ft.

ENVIROSTOR:

Name:	NORTON COMM FAC
Address:	Not reported
City,State,Zip:	SAN BERNARDINO, CA
Facility ID:	80001185
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Site Code:	Not reported
Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	0
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Assembly:	40
Senate:	23
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	34.10027
Longitude:	-117.2336
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799F688400
Alias Type:	Federal Facility ID
Alias Name:	J09CA2140
Alias Type:	INPR
Alias Name:	80001185
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inventory Project Report (INPR)
Completed Date:	07/02/1992
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

L49 **NORTON COMMUNICATION FACILITY** **FUDS** **1024903849**
WSW **N/A**
1/2-1 **SAN BERNARDINO, CA**
0.944 mi.
4986 ft. **Site 3 of 3 in cluster L**

Relative:
Lower

Actual:
1123 ft.

FUDS:

EPA Region:	9
Installation ID:	CA99799F688400
Congressional District Number:	31
Name:	NORTON COMMUNICATION FACILITY
FUDS Number:	J09CA2140
City:	SAN BERNARDINO
State:	CA
County:	SAN BERNARDINO
Object ID:	8777
USACE Division:	SPD
USACE District:	Los Angeles District (SPL)
Status:	Properties without projects
Current Owner:	Not reported
EMS Map Link:	https://fudsportal.usace.army.mil/ems/inventory/map?id=61975
Eligibility:	Ineligible
Has Projects:	No
NPL Status:	Not on the NPL
Property History:	Not reported
Project Required:	No
Feature Description:	Not reported
Latitude:	34.10027778
Longitude:	-117.23361111

Count: 4 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HIGHLAND	S107532247		28135 E 5TH ST	92346	CA CDL
SAN BERNARDINO	S106162215	NORTON A F B BLDG 754	7TH ST	92410	CA LUST
SAN BERNARDINO	1003878981	SECCOMBE LAKE STATE REC AREA	7TH ST BETW SERRIA & WATERMAN	92410	SEMS-ARCHIVE
SAN BERNARDINO COUNT	1016139697	CIMA ROAD MINE WASTE SITE	1 MIL W OF INTE. 15 OFF CIMA R		SEMS

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: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 10/10/2022
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: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 10/10/2022
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.

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: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 10/10/2022
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: 09/06/2022
Next Scheduled EDR Contact: 10/10/2022
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 know 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: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 10/24/2022
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: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

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: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 05/16/2022
Date Data Arrived at EDR: 05/19/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 71

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/03/2022
Next Scheduled EDR Contact: 11/21/2022
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: 05/16/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
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: 05/16/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

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: 06/14/2022
Date Data Arrived at EDR: 06/15/2022
Date Made Active in Reports: 06/21/2022
Number of Days to Update: 6

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/15/2022
Next Scheduled EDR Contact: 10/03/2022
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: 04/25/2022
Date Data Arrived at EDR: 04/26/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2022
Next Scheduled EDR Contact: 11/07/2022
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 identifes 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: 04/25/2022
Date Data Arrived at EDR: 04/26/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2022
Next Scheduled EDR Contact: 11/07/2022
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 inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/09/2022
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 81

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/08/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

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
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
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
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Quarterly

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
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 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
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
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
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
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 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 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
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
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
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
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 R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/11/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 06/02/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 79
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
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 1
Telephone: 617-918-1313
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/28/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/14/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
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

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: 10/14/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 88
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 06/29/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/06/2022
Date Data Arrived at EDR: 06/07/2022
Date Made Active in Reports: 08/24/2022
Number of Days to Update: 78
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 06/01/2022
Date Data Arrived at EDR: 06/09/2022
Date Made Active in Reports: 08/26/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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: 09/07/2022
Next Scheduled EDR Contact: 12/26/2022
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: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 06/02/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 79

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/28/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/14/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/08/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/11/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 04/07/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

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: 04/25/2022
Date Data Arrived at EDR: 04/26/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2022
Next Scheduled EDR Contact: 11/07/2022
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: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfieds 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: 06/21/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 09/08/2022
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 02/23/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 0

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/26/2022
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.

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: 07/19/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 06/06/2022
Date Data Arrived at EDR: 06/07/2022
Date Made Active in Reports: 08/23/2022
Number of Days to Update: 77

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 08/12/2022
Date Data Arrived at EDR: 08/16/2022
Date Made Active in Reports: 08/26/2022
Number of Days to Update: 10

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 11/21/2022
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: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
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: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
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 Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 04/30/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/18/2022
Next Scheduled EDR Contact: 12/05/2022
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
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
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: 04/25/2022
Date Data Arrived at EDR: 04/26/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2022
Next Scheduled EDR Contact: 11/07/2022
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
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 08/23/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
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

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 04/30/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/18/2022
Next Scheduled EDR Contact: 12/05/2022
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: 06/06/2022
Date Data Arrived at EDR: 06/07/2022
Date Made Active in Reports: 08/24/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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: 02/20/2020
Date Data Arrived at EDR: 12/10/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 09/06/2022
Next Scheduled EDR Contact: 12/19/2022
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

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 05/05/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/21/2022
Number of Days to Update: 76

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
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: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
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: 05/25/2022
Date Data Arrived at EDR: 05/26/2022
Date Made Active in Reports: 08/11/2022
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/23/2022
Next Scheduled EDR Contact: 12/12/2022
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: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

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: 05/31/2022
Date Data Arrived at EDR: 05/31/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 79

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 04/03/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
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: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Quarterly

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
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
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: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 05/11/2022
Date Data Arrived at EDR: 05/17/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 73

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
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: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/08/2022
Next Scheduled EDR Contact: 10/17/2022
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.

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: 08/03/2022
Next Scheduled EDR Contact: 11/21/2022
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: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 07/29/2022
Next Scheduled EDR Contact: 11/14/2022
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: 08/04/2022
Next Scheduled EDR Contact: 11/14/2022
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: 09/12/2022
Next Scheduled EDR Contact: 12/26/2022
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.

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: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
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: 07/18/2022
Date Data Arrived at EDR: 07/18/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 11

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
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: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 12/12/2022
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: 04/27/2022
Date Data Arrived at EDR: 05/04/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/14/2022
Next Scheduled EDR Contact: 10/31/2022
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

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 29
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 11/14/2022
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: 01/20/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 64
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/08/2022
Next Scheduled EDR Contact: 10/17/2022
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
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
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
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
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
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
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: 06/10/2022
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 69
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 84
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
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
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
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
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/04/2022
Next Scheduled EDR Contact: 11/14/2022
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
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/23/2022
Next Scheduled EDR Contact: 10/10/2022
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
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: 12/17/2007
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.

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 Transporation, 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 Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
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: 03/31/2022
Date Data Arrived at EDR: 04/14/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 89

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/29/2022
Next Scheduled EDR Contact: 10/17/2022
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: 12/31/2019
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 23

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 07/08/2022
Next Scheduled EDR Contact: 10/17/2022
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: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
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.

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: 08/24/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 10/10/2022
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 1931and 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: 03/21/2022
Date Data Arrived at EDR: 03/22/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 3

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 12/12/2022
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.

Date of Government Version: 08/03/2022
Date Data Arrived at EDR: 08/17/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 14

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
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: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
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: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
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: 06/14/2022
Date Data Arrived at EDR: 06/15/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 68

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/13/2022
Next Scheduled EDR Contact: 12/19/2022
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: 05/13/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 13

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 34

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/07/2022
Next Scheduled EDR Contact: 10/24/2022
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: 04/02/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/01/2022
Next Scheduled EDR Contact: 10/17/2022
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: 08/22/2022
Next Scheduled EDR Contact: 12/05/2022
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: 05/16/2022
Date Data Arrived at EDR: 05/17/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 73

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
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
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
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: 06/21/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 09/08/2022
Number of Days to Update: 79

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/21/2022
Next Scheduled EDR Contact: 10/03/2022
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: 12/07/2021
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 05/17/2022
Number of Days to Update: 8

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

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: 05/20/2022
Date Data Arrived at EDR: 05/20/2022
Date Made Active in Reports: 08/09/2022
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 12/05/2022
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.

Date of Government Version: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 09/07/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Annually

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: 05/25/2022
Date Data Arrived at EDR: 05/26/2022
Date Made Active in Reports: 08/11/2022
Number of Days to Update: 77

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/23/2022
Next Scheduled EDR Contact: 12/12/2022
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: 12/31/2020
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/30/2022
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 09/26/2022
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: 04/12/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 42

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/19/2022
Date Data Arrived at EDR: 04/29/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 10/31/2022
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: 08/09/2022
Date Data Arrived at EDR: 08/10/2022
Date Made Active in Reports: 08/30/2022
Number of Days to Update: 20

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/05/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/17/2022
Date Made Active in Reports: 08/03/2022
Number of Days to Update: 78

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
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 [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/17/2022
Date Made Active in Reports: 08/03/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
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: 04/05/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 06/27/2022
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/05/2022
Next Scheduled EDR Contact: 10/17/2022
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: 06/06/2022
Date Data Arrived at EDR: 06/07/2022
Date Made Active in Reports: 08/23/2022
Number of Days to Update: 77
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/06/2022
Date Data Arrived at EDR: 05/31/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 79
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 05/09/2022
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 81
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/08/2022
Next Scheduled EDR Contact: 11/21/2022
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: 05/31/2022
Date Data Arrived at EDR: 05/31/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 79
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 06/06/2022
Date Data Arrived at EDR: 06/07/2022
Date Made Active in Reports: 08/23/2022
Number of Days to Update: 77
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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: 06/10/2022
Date Data Arrived at EDR: 06/10/2022
Date Made Active in Reports: 08/26/2022
Number of Days to Update: 77
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/07/2022
Next Scheduled EDR Contact: 12/26/2022
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: 06/06/2022
Date Data Arrived at EDR: 06/07/2022
Date Made Active in Reports: 08/23/2022
Number of Days to Update: 77
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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: 07/08/2022
Next Scheduled EDR Contact: 10/17/2022
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: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
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: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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.

Date of Government Version: 06/06/2022
Date Data Arrived at EDR: 06/07/2022
Date Made Active in Reports: 08/24/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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: 08/16/2022
Date Data Arrived at EDR: 08/17/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

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: 04/05/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 04/26/2022
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/17/2022
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: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Varies

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: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

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: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

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: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
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

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
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
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
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
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
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/29/2022
Date Data Arrived at EDR: 06/29/2022
Date Made Active in Reports: 07/21/2022
Number of Days to Update: 22

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/29/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 07/22/2022
Date Data Arrived at EDR: 07/27/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 5

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/14/2022
Date Data Arrived at EDR: 06/15/2022
Date Made Active in Reports: 09/02/2022
Number of Days to Update: 79

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
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: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
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: 04/21/2022
Date Data Arrived at EDR: 04/22/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 81

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/19/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 05/04/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 83

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/19/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/08/2022
Date Data Arrived at EDR: 08/09/2022
Date Made Active in Reports: 09/01/2022
Number of Days to Update: 23

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/20/2022
Next Scheduled EDR Contact: 11/07/2022
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: 06/28/2021
Date Data Arrived at EDR: 12/21/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 72

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/01/2022
Next Scheduled EDR Contact: 10/10/2022
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: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
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: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
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: 05/06/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 81

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 09/07/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/06/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 81

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 09/07/2022
Next Scheduled EDR Contact: 11/14/2022
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: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2022
Date Data Arrived at EDR: 02/11/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 82

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/07/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

LASSEN COUNTY:

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: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
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: 09/07/2022
Next Scheduled EDR Contact: 12/26/2022
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/04/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 8

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/29/2022
Next Scheduled EDR Contact: 10/17/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/11/2022
Date Data Arrived at EDR: 04/12/2022
Date Made Active in Reports: 07/05/2022
Number of Days to Update: 84

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/11/2022
Next Scheduled EDR Contact: 10/24/2022
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: 01/01/2022
Date Data Arrived at EDR: 01/21/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 80

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/24/2022
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: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

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: 01/10/2022
Date Data Arrived at EDR: 01/12/2022
Date Made Active in Reports: 04/04/2022
Number of Days to Update: 82

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/24/2022
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: 01/13/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/15/2022
Number of Days to Update: 86

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/24/2022
Next Scheduled EDR Contact: 10/03/2022
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: 03/22/2022
Date Data Arrived at EDR: 06/24/2022
Date Made Active in Reports: 09/08/2022
Number of Days to Update: 76

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/24/2022
Next Scheduled EDR Contact: 10/03/2022
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
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/14/2022
Next Scheduled EDR Contact: 10/24/2022
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
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/06/2022
Next Scheduled EDR Contact: 10/24/2022
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
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 04/21/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 82

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
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
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
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
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/22/2022
Next Scheduled EDR Contact: 10/10/2022
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: 09/22/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/11/2022
Number of Days to Update: 83

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

MONO COUNTY:

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: 08/15/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 10/10/2022
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: 08/15/2022
Next Scheduled EDR Contact: 12/05/2022
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: 08/15/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/21/2022
Date Data Arrived at EDR: 07/25/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 3

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/19/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 80

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/29/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 08/03/2022
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/29/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 05/03/2022
Date Made Active in Reports: 07/20/2022
Number of Days to Update: 78

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/01/2022
Next Scheduled EDR Contact: 11/14/2022
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: 05/25/2022
Date Data Arrived at EDR: 05/26/2022
Date Made Active in Reports: 06/01/2022
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/23/2022
Next Scheduled EDR Contact: 12/12/2022
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: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
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: 03/31/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 8

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/07/2022
Next Scheduled EDR Contact: 12/26/2022
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/31/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 8

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/07/2022
Next Scheduled EDR Contact: 12/26/2022
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: 06/18/2021
Date Data Arrived at EDR: 09/28/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 77

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/30/2022
Next Scheduled EDR Contact: 10/10/2022
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: 05/04/2022
Date Data Arrived at EDR: 06/30/2022
Date Made Active in Reports: 07/05/2022
Number of Days to Update: 5

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/30/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/29/2022
Date Data Arrived at EDR: 04/29/2022
Date Made Active in Reports: 05/05/2022
Number of Days to Update: 6

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
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: 05/12/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 05/18/2022
Number of Days to Update: 6

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

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: 05/31/2022
Date Data Arrived at EDR: 05/31/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 79

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/27/2021
Date Data Arrived at EDR: 03/04/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 88

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
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: 07/22/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 08/23/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 05/05/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 83

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
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: 05/05/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/20/2022
Number of Days to Update: 75

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

SAN FRANCISO COUNTY:

SAN FRANCISCO MAHER: Maher Ordinance Property Listing
a listing of properties that fall within a Maher Ordinance, for all of San Francisco

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 04/27/2022
Number of Days to Update: 97

Source: San Francisco Planning
Telephone: 628-652-7483
Last EDR Contact: 07/05/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

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: 09/07/2022
Next Scheduled EDR Contact: 12/26/2022
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 08/04/2022
Number of Days to Update: 78

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
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: 09/09/2022
Next Scheduled EDR Contact: 12/19/2022
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: 08/29/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 08/04/2022
Number of Days to Update: 78
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
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: 08/15/2022
Next Scheduled EDR Contact: 12/05/2022
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: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
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: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
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: 08/23/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/23/2022
Next Scheduled EDR Contact: 12/12/2022
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: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
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: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2022
Date Data Arrived at EDR: 02/10/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/11/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 05/03/2022
Date Data Arrived at EDR: 05/27/2022
Date Made Active in Reports: 08/11/2022
Number of Days to Update: 76

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/23/2022
Next Scheduled EDR Contact: 12/12/2022
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: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/18/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 07/12/2022
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/13/2022
Next Scheduled EDR Contact: 10/31/2022
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: 07/12/2022
Next Scheduled EDR Contact: 11/14/2022
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: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/12/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/28/2022
Date Data Arrived at EDR: 04/28/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 78

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
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
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/22/2022
Next Scheduled EDR Contact: 10/10/2022
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
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 11/21/2022
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: 03/28/2022
Date Data Arrived at EDR: 04/28/2022
Date Made Active in Reports: 07/15/2022
Number of Days to Update: 78

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
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: 05/26/2022
Date Data Arrived at EDR: 06/07/2022
Date Made Active in Reports: 08/24/2022
Number of Days to Update: 78
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/31/2022
Next Scheduled EDR Contact: 12/19/2022
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: 06/22/2022
Date Data Arrived at EDR: 06/30/2022
Date Made Active in Reports: 09/14/2022
Number of Days to Update: 76
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/22/2022
Next Scheduled EDR Contact: 10/10/2022
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 05/03/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 84
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 08/02/2022
Next Scheduled EDR Contact: 11/07/2022
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: 05/08/2022
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 80
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/08/2022
Next Scheduled EDR Contact: 11/21/2022
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: 04/10/2019
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: 06/28/2022
Next Scheduled EDR Contact: 10/17/2022
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: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 07/29/2022
Next Scheduled EDR Contact: 11/07/2022
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: 07/06/2022
Next Scheduled EDR Contact: 10/24/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/10/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Annually

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: 08/29/2022
Next Scheduled EDR Contact: 12/19/2022
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

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

26811 5TH ST
26811 5TH ST
HIGHLAND, CA 92346

TARGET PROPERTY COORDINATES

Latitude (North):	34.10792 - 34ˆ 6’ 28.51’’
Longitude (West):	117.219162 - 117ˆ 13’ 8.98’’
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	479786.0
UTM Y (Meters):	3773949.0
Elevation:	1163 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12014994 REDLANDS, 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).

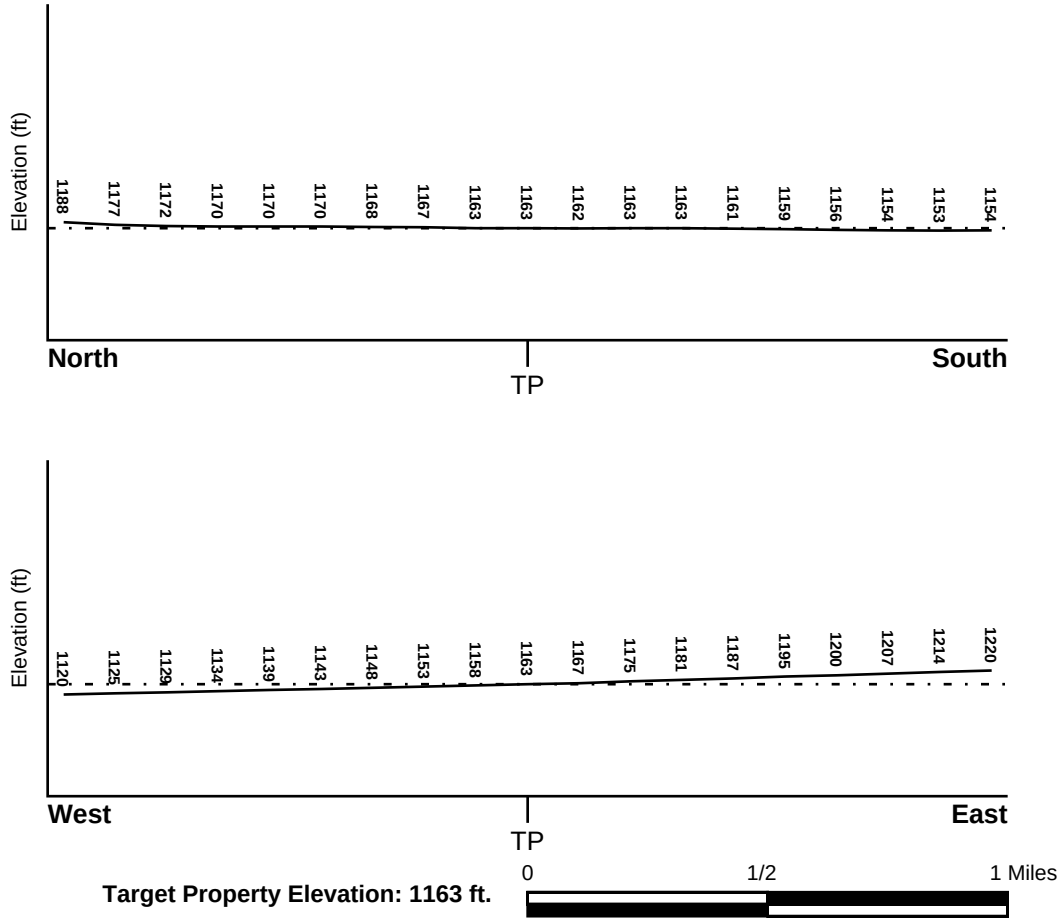
TOPOGRAPHIC INFORMATION

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 West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 1163 ft.

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

Flood Plain Panel at Target Property	FEMA Source Type
06071C8701H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06071C8702H	FEMA FIRM Flood data
06071C8703H	FEMA FIRM Flood data
06071C8704H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	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.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

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

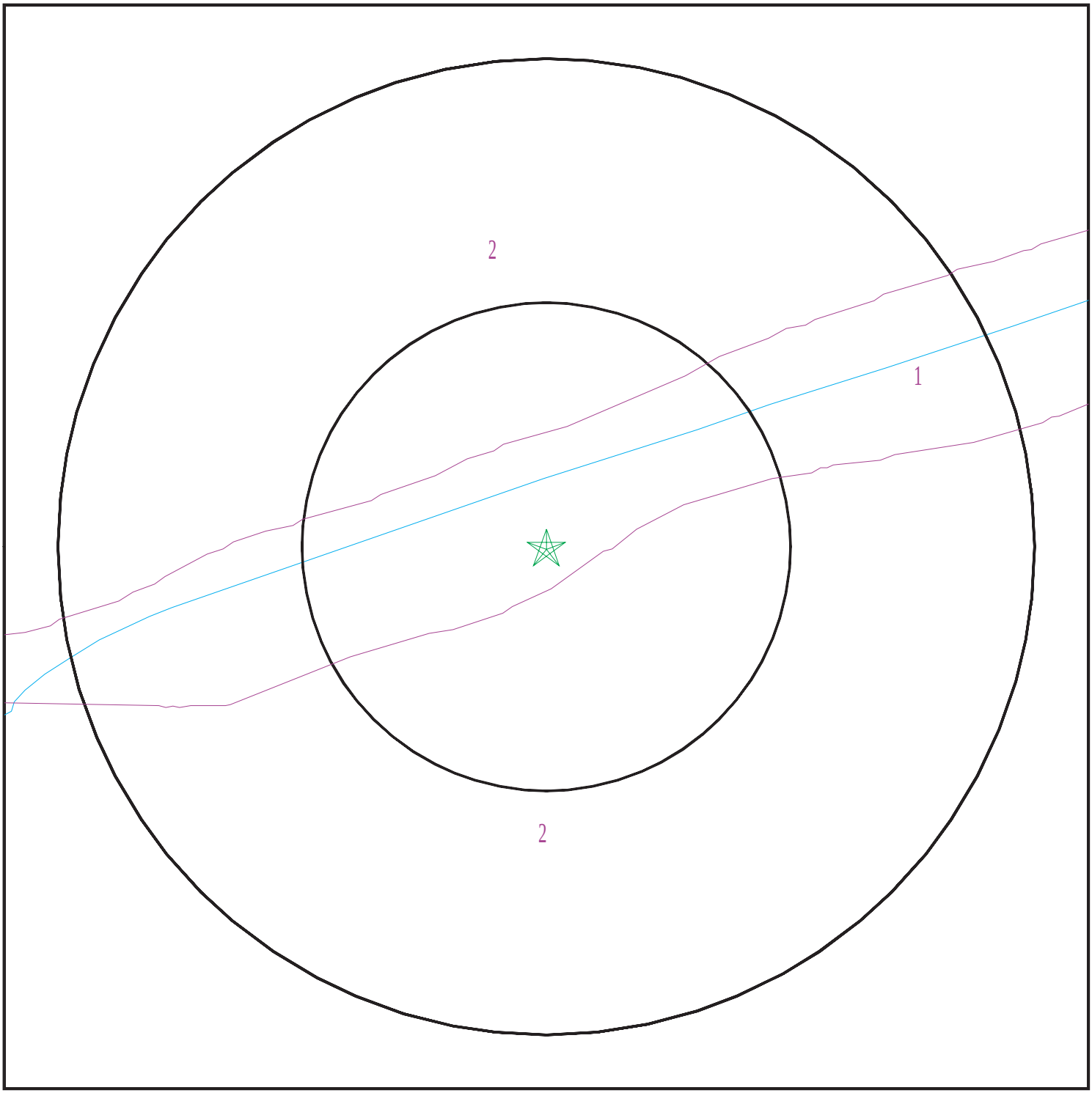
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed 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 - 7120439.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	26811 5th St	CLIENT:	Hazard Management Consulting
ADDRESS:	26811 5th St Highland CA 92346	CONTACT:	Troy Taylor
		INQUIRY #:	7120439.2s
LAT/LONG:	34.10792 / 117.219162	DATE:	September 16, 2022 4:57 pm

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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: FLUVENTS

Soil Surface Texture: gravelly sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
2	9 inches	29 inches	stratified gravelly sand to gravelly loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
3	29 inches	59 inches	stratified gravelly sand to gravelly loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: TUJUNGA

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	35 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1
2	35 inches	59 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1

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

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000141173	1/8 - 1/4 Mile ESE
A2	USGS40000141260	1/8 - 1/4 Mile NNE
A3	USGS40000141261	1/8 - 1/4 Mile NNW
B4	USGS40000141241	1/8 - 1/4 Mile WNW
B5	USGS40000141242	1/8 - 1/4 Mile WNW
6	USGS40000141259	1/8 - 1/4 Mile NE
7	USGS40000141308	1/4 - 1/2 Mile NNE
8	USGS40000141286	1/4 - 1/2 Mile NW
C9	USGS40000141203	1/4 - 1/2 Mile West
C10	USGS40000141204	1/4 - 1/2 Mile West
D12	USGS40000141172	1/4 - 1/2 Mile East
C13	USGS40000141174	1/4 - 1/2 Mile West
D14	USGS40000141197	1/4 - 1/2 Mile East
D16	USGS40000141171	1/4 - 1/2 Mile East
C17	USGS40000141213	1/4 - 1/2 Mile West
C18	USGS40000141216	1/4 - 1/2 Mile West
19	USGS40000141312	1/4 - 1/2 Mile NW
E20	USGS40000141142	1/4 - 1/2 Mile WSW
22	USGS40000141344	1/4 - 1/2 Mile NNW
F23	USGS40000141215	1/4 - 1/2 Mile East
25	USGS40000141313	1/2 - 1 Mile NW
27	USGS40000141317	1/2 - 1 Mile NE
H28	USGS40000141361	1/2 - 1 Mile NNW
30	USGS40000141161	1/2 - 1 Mile East
G31	USGS40000141131	1/2 - 1 Mile WSW
34	USGS40000141336	1/2 - 1 Mile NE
35	USGS40000141222	1/2 - 1 Mile East
I36	USGS40000141065	1/2 - 1 Mile SW
J37	USGS40000141249	1/2 - 1 Mile WNW
H38	USGS40000141388	1/2 - 1 Mile North
J39	USGS40000141271	1/2 - 1 Mile WNW
48	USGS40000141325	1/2 - 1 Mile NE
49	USGS40000141299	1/2 - 1 Mile WNW
I50	USGS40000141057	1/2 - 1 Mile SW
52	USGS40000141379	1/2 - 1 Mile NNE
L53	USGS40000141185	1/2 - 1 Mile East
L55	USGS40000141169	1/2 - 1 Mile East
L56	USGS40000141170	1/2 - 1 Mile East
L59	USGS40000141160	1/2 - 1 Mile East
M60	USGS40000141383	1/2 - 1 Mile NNW
N61	USGS40000141321	1/2 - 1 Mile ENE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
62	USGS40000141143	1/2 - 1 Mile West
O65	USGS40000141374	1/2 - 1 Mile NW
P66	USGS40000141330	1/2 - 1 Mile NW
69	USGS40000141413	1/2 - 1 Mile North
Q70	USGS40000141202	1/2 - 1 Mile East
N73	USGS40000141335	1/2 - 1 Mile NE
R74	USGS40000141217	1/2 - 1 Mile West
M78	USGS40000141389	1/2 - 1 Mile NW
P79	USGS40000141331	1/2 - 1 Mile WNW
R81	USGS40000141205	1/2 - 1 Mile West
R82	USGS40000141206	1/2 - 1 Mile West
83	USGS40000141421	1/2 - 1 Mile NNE
S87	USGS40000141422	1/2 - 1 Mile NNW
S88	USGS40000141423	1/2 - 1 Mile NNW
92	USGS40000141412	1/2 - 1 Mile NNE
S95	USGS40000141427	1/2 - 1 Mile NNW
S96	USGS40000141428	1/2 - 1 Mile NNW
T97	USGS40000141060	1/2 - 1 Mile SE
U99	USGS40000141151	1/2 - 1 Mile West
V101	USGS40000141223	1/2 - 1 Mile West
103	USGS40000141450	1/2 - 1 Mile North
106	USGS40000141347	1/2 - 1 Mile ENE
V107	USGS40000141224	1/2 - 1 Mile West
108	USGS40000140972	1/2 - 1 Mile SSW
W109	USGS40000141262	1/2 - 1 Mile West
W110	USGS40000141263	1/2 - 1 Mile West
111	USGS40000141324	1/2 - 1 Mile ENE
Y114	USGS40000141198	1/2 - 1 Mile West
Y115	USGS40000141186	1/2 - 1 Mile West
116	USGS40000141488	1/2 - 1 Mile NNE
Z117	USGS40000141453	1/2 - 1 Mile NNW
Z118	USGS40000141454	1/2 - 1 Mile NNW
W119	USGS40000141264	1/2 - 1 Mile West
AA120	USGS40000141225	1/2 - 1 Mile West
Y122	USGS40000141187	1/2 - 1 Mile West
AA123	USGS40000141218	1/2 - 1 Mile West
W124	USGS40000141276	1/2 - 1 Mile West
127	USGS40000141132	1/2 - 1 Mile West
Z128	USGS40000141472	1/2 - 1 Mile NNW
X129	USGS40000141040	1/2 - 1 Mile SE
130	USGS40000141088	1/2 - 1 Mile WSW
131	USGS40000141175	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

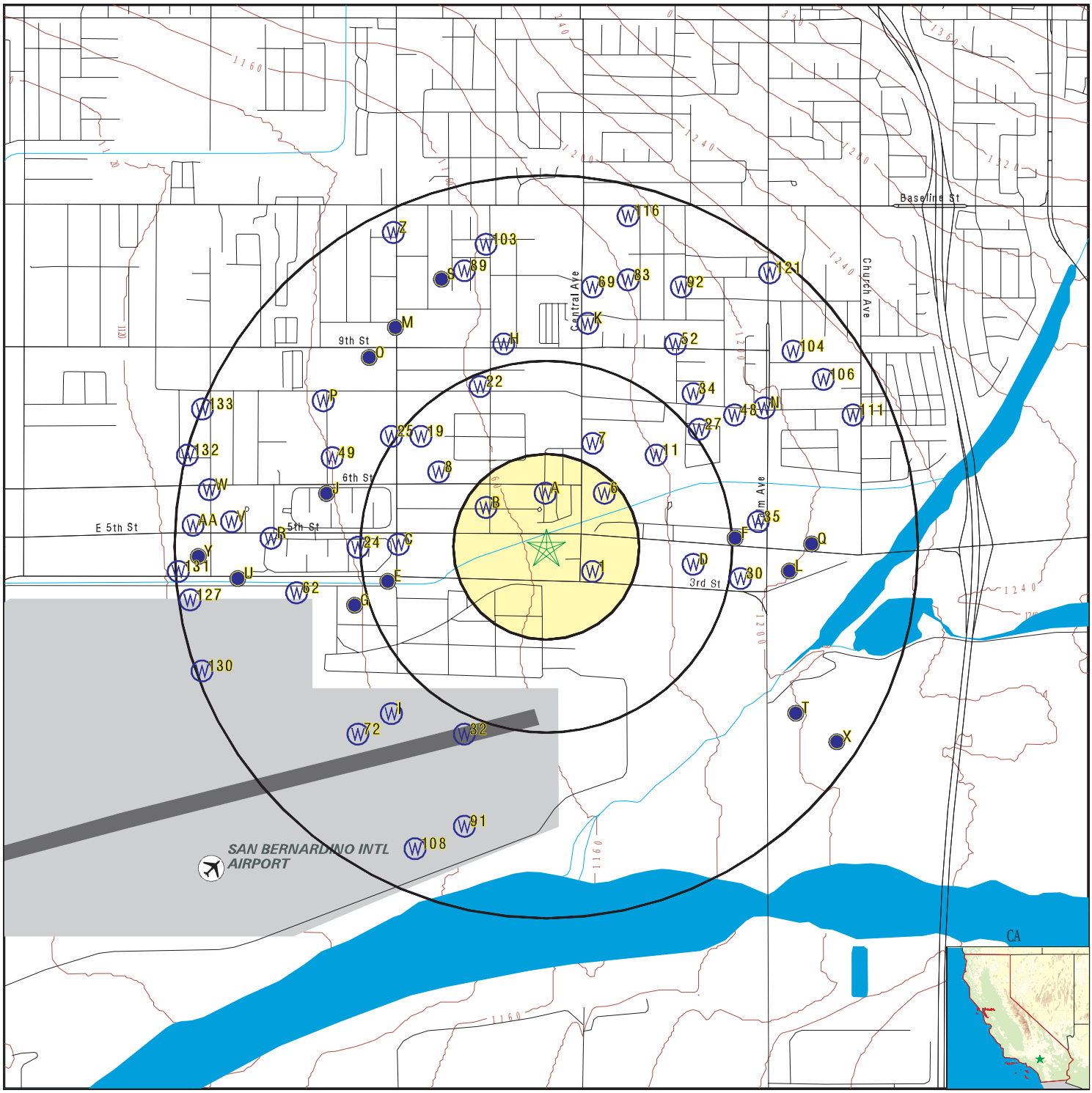
Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
11	CADWR0000003800	1/4 - 1/2 Mile NE
E15	CADDW0000007406	1/4 - 1/2 Mile WSW
E21	CADWR9000006839	1/4 - 1/2 Mile West
24	CADWR0000034942	1/2 - 1 Mile West
G26	CADDW0000010240	1/2 - 1 Mile WSW
F29	CADWR0000036115	1/2 - 1 Mile East
32	CADWR0000013479	1/2 - 1 Mile SSW
G33	809	1/2 - 1 Mile WSW
K40	803	1/2 - 1 Mile North
K41	802	1/2 - 1 Mile North
K42	804	1/2 - 1 Mile North
K43	807	1/2 - 1 Mile North
K44	805	1/2 - 1 Mile North
K45	CADDW0000014380	1/2 - 1 Mile NNE
K46	CADDW0000010935	1/2 - 1 Mile NNE
K47	CADDW0000006680	1/2 - 1 Mile NNE
J51	CADDW0000009422	1/2 - 1 Mile WNW
L54	CAUSGSN00016039	1/2 - 1 Mile East
L57	CAUSGSN00004484	1/2 - 1 Mile East
L58	CAUSGSN00016638	1/2 - 1 Mile East
L63	CADDW0000010936	1/2 - 1 Mile East
O64	CAUSGSN00018452	1/2 - 1 Mile NW
O67	CADWR0000034657	1/2 - 1 Mile NW
O68	CADWR0000018282	1/2 - 1 Mile NW
Q71	CAUSGSN00011117	1/2 - 1 Mile East
72	CADWR0000011121	1/2 - 1 Mile SW
M75	CADDW0000004370	1/2 - 1 Mile NW
M76	CAUSGS000000252	1/2 - 1 Mile NW
M77	CAUSGSN00008670	1/2 - 1 Mile NW
S80	CADDW0000010401	1/2 - 1 Mile NNW
S84	CADDW0000001678	1/2 - 1 Mile NNW
S85	CAUSGSN00000156	1/2 - 1 Mile NNW
S86	CAUSGSN00006877	1/2 - 1 Mile NNW
89	CADWR0000024907	1/2 - 1 Mile NNW
T90	CADWR9000006810	1/2 - 1 Mile SE
91	CADWR0000000216	1/2 - 1 Mile SSW
S93	CAUSGSN00012373	1/2 - 1 Mile NNW
S94	CAUSGSN00017831	1/2 - 1 Mile NNW
T98	CAUSGSN00005706	1/2 - 1 Mile SE
T100	CADDW0000006489	1/2 - 1 Mile ESE
T102	CADWR0000030199	1/2 - 1 Mile ESE
104	798	1/2 - 1 Mile NE
U105	808	1/2 - 1 Mile West
X112	CADWR0000035024	1/2 - 1 Mile SE
Y113	CADWR9000006841	1/2 - 1 Mile West
121	797	1/2 - 1 Mile NE
Y125	CADWR0000001432	1/2 - 1 Mile West
Y126	CADWR0000022937	1/2 - 1 Mile West
132	CADWR0000014641	1/2 - 1 Mile WNW
133	CAUSGSN00009917	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 7120439.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	26811 5th St	CLIENT:	Hazard Management Consulting
ADDRESS:	26811 5th St Highland CA 92346	CONTACT:	Troy Taylor
		INQUIRY #:	7120439.2s
LAT/LONG:	34.10792 / 117.219162	DATE:	September 16, 2022 4:57 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
ESE **FED USGS** **USGS40000141173**
1/8 - 1/4 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05Q003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19540101	Well Depth:	163
Well Depth Units:	ft	Well Hole Depth:	163
Well Hole Depth Units:	ft		

A2
NNE **FED USGS** **USGS40000141260**
1/8 - 1/4 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05P003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19550101	Well Depth:	205
Well Depth Units:	ft	Well Hole Depth:	208
Well Hole Depth Units:	ft		

A3
NNW **FED USGS** **USGS40000141261**
1/8 - 1/4 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05P001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19510101	Well Depth:	228
Well Depth Units:	ft	Well Hole Depth:	228
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B4
WNW
1/8 - 1/4 Mile
Lower

FED USGS **USGS40000141241**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05N001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19500101	Well Depth:	160
Well Depth Units:	ft	Well Hole Depth:	165
Well Hole Depth Units:	ft		

B5
WNW
1/8 - 1/4 Mile
Lower

FED USGS **USGS40000141242**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05N004S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19390101	Well Depth:	88
Well Depth Units:	ft	Well Hole Depth:	96
Well Hole Depth Units:	ft		

6
NE
1/8 - 1/4 Mile
Higher

FED USGS **USGS40000141259**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05Q006S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19520101	Well Depth:	110
Well Depth Units:	ft	Well Hole Depth:	120
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
7 **NNE** **1/4 - 1/2 Mile** **Higher**	**FED USGS**	**USGS40000141308**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05K001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19520101	Well Depth:	182
Well Depth Units:	ft	Well Hole Depth:	200
Well Hole Depth Units:	ft		

	Database	EDR ID Number
8 **NW** **1/4 - 1/2 Mile** **Lower**	**FED USGS**	**USGS40000141286**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05M003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19240101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	101
Well Hole Depth Units:	ft		

	Database	EDR ID Number
C9 **West** **1/4 - 1/2 Mile** **Lower**	**FED USGS**	**USGS40000141203**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05N070S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19460101	Well Depth:	110
Well Depth Units:	ft	Well Hole Depth:	130
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C10
West
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000141204**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05N008S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19500101	Well Depth:	118
Well Depth Units:	ft	Well Hole Depth:	133
Well Hole Depth Units:	ft		

11
NE
1/4 - 1/2 Mile
Higher

CA WELLS **CADWR0000003800**

Well ID:	01S03W05K002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W05K002S	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=01S03W05K002S&store_num=		
GeoTracker Data:	Not Reported		

D12
East
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000141172**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05R003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19500101	Well Depth:	154
Well Depth Units:	ft	Well Hole Depth:	154
Well Hole Depth Units:	ft		

C13
West
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000141174**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05N006S	Type:	Well

Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19510101	Well Depth:	96
Well Depth Units:	ft	Well Hole Depth:	105
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	4	Level reading date:	1988-11-23
Feet below surface:	87.30	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1988-06-30	Feet below surface:	76.23
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-12-09	Feet below surface:	74.51
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-07-15	Feet below surface:	65.90
Feet to sea level:	Not Reported	Note:	Not Reported

D14
East
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000141197**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05R005S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19510101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	396
Well Hole Depth Units:	ft		

E15
WSW
1/4 - 1/2 Mile
Lower

CA WELLS **CADDW0000007406**

Well ID:	3610704-005	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 02A - INACTIVE	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=3610704-005&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
D16 **East** **1/4 - 1/2 Mile** **Higher**	**FED USGS**	**USGS40000141171**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05R002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19510101	Well Depth:	176
Well Depth Units:	ft	Well Hole Depth:	176
Well Hole Depth Units:	ft		

	Database	EDR ID Number
C17 **West** **1/4 - 1/2 Mile** **Lower**	**FED USGS**	**USGS40000141213**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06R001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19500101	Well Depth:	160
Well Depth Units:	ft	Well Hole Depth:	165
Well Hole Depth Units:	ft		

	Database	EDR ID Number
C18 **West** **1/4 - 1/2 Mile** **Lower**	**FED USGS**	**USGS40000141216**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06R002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19260101	Well Depth:	106
Well Depth Units:	ft	Well Hole Depth:	113
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

19
NW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000141312**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05M002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19210101	Well Depth:	78
Well Depth Units:	ft	Well Hole Depth:	83
Well Hole Depth Units:	ft		

E20
WSW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000141142**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W07A003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	98
Well Depth Units:	ft	Well Hole Depth:	104
Well Hole Depth Units:	ft		

E21
West
1/4 - 1/2 Mile
Lower

CA WELLS **CADWR9000006839**

State Well #:	01S03W05N006S	Station ID:	6583
Well Name:	Not Reported	Basin Name:	San Bernardino
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

22
NNW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000141344**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05E002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	105
Well Hole Depth Units:	ft		

F23
East
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000141215**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05R006S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19500101	Well Depth:	104
Well Depth Units:	ft	Well Hole Depth:	114
Well Hole Depth Units:	ft		

24
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000034942**

Well ID:	01S03W06R002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W06R002S	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=01S03W06R002S&store_num=		
GeoTracker Data:	Not Reported		

25
NW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141313**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06J003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	374
Well Hole Depth Units:	ft		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

G26
WSW
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000010240**

Well ID:	3610039-126	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	IVDA WELL 11	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=3610039-126&store_num=		
GeoTracker Data:	Not Reported		

27
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141317**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05J003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19530101	Well Depth:	221
Well Depth Units:	ft	Well Hole Depth:	221
Well Hole Depth Units:	ft		

H28
NNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000141361**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05F007S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19460101	Well Depth:	89
Well Depth Units:	ft	Well Hole Depth:	106
Well Hole Depth Units:	ft		

F29
East
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000036115**

Well ID:	01S03W05R002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W05R002S	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=01S03W05R002S&store_num=
GeoTracker Data: Not Reported

30
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000141161**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05R007S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19550101	Well Depth:	164
Well Depth Units:	ft	Well Hole Depth:	164
Well Hole Depth Units:	ft		

G31
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141131**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W07A001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19310101	Well Depth:	102
Well Depth Units:	ft	Well Hole Depth:	104
Well Hole Depth Units:	ft		

32
SSW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000013479**

Well ID:	01S03W08E001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W08E001S	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=01S03W08E001S&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

G33
WSW
1/2 - 1 Mile
Lower

CA WELLS **809**

Seq:	809	Prim sta c:	01S/03W-07A06 S
Frds no:	3610704004	County:	36
District:	13	User id:	TAN
System no:	3610704	Water type:	G
Source nam:	WELL 11	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	340620.0	Longitude:	1171340.0
Precision:	3	Status:	AR
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:	3610704	System nam:	Inland Valley Development Agency-Norton
Hqname:	Not Reported	Address:	201 N. "E" ST., SUITE 203
City:	SAN BERNARDINO	State:	CA
Zip:	92401	Zip ext:	5300
Pop serv:	1500	Connection:	1001
Area serve:	NORTON AIR FORCE BASE		

34
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141336**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05H002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	55
Well Depth Units:	ft	Well Hole Depth:	55
Well Hole Depth Units:	ft		

35
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000141222**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05R001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	200
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I36
SW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141065**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W08E001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19430101	Well Depth:	126
Well Depth Units:	ft	Well Hole Depth:	150
Well Hole Depth Units:	ft		

J37
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141249**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q004S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19470101	Well Depth:	74
Well Depth Units:	ft	Well Hole Depth:	108
Well Hole Depth Units:	ft		

H38
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000141388**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05F006S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19360101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	70
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

J39
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141271**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q009S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	80
Well Depth Units:	ft	Well Hole Depth:	85
Well Hole Depth Units:	ft		

K40
North
1/2 - 1 Mile
Higher

CA WELLS **803**

Seq:	803	Prim sta c:	01S/03W-05D04 S
Frds no:	3610064006	County:	36
District:	13	User id:	TAN
System no:	3610064	Water type:	G
Source nam:	CULL WELL 02	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340700.0	Longitude:	1171300.0
Precision:	8	Status:	AR
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:	3610064	System nam:	East Valley Wd
Hqname:	Not Reported	Address:	PO BOX 3427
City:	SAN BERNARDINO	State:	CA
Zip:	92413	Zip ext:	Not Reported
Pop serv:	55000	Connection:	18303
Area serve:	SAN BERNARDINO VIC		

K41
North
1/2 - 1 Mile
Higher

CA WELLS **802**

Seq:	802	Prim sta c:	01S/03W-05D01 S
Frds no:	3610064005	County:	36
District:	13	User id:	TAN
System no:	3610064	Water type:	G
Source nam:	CULL WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340700.0	Longitude:	1171300.0
Precision:	8	Status:	AR
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:	3610064	System nam:	East Valley Wd
Hqname:	Not Reported	Address:	PO BOX 3427
City:	SAN BERNARDINO	State:	CA
Zip:	92413	Zip ext:	Not Reported
Pop serv:	55000	Connection:	18303
Area serve:	SAN BERNARDINO VIC		

K42
North
1/2 - 1 Mile
Higher

CA WELLS 804

Seq:	804	Prim sta c:	01S/03W-05D07 S
Frds no:	3610064008	County:	36
District:	13	User id:	TAN
System no:	3610064	Water type:	G
Source nam:	CULL WELL 04	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340700.0	Longitude:	1171300.0
Precision:	8	Status:	AR
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:	3610064	System nam:	East Valley Wd
Hqname:	Not Reported	Address:	PO BOX 3427
City:	SAN BERNARDINO	State:	CA
Zip:	92413	Zip ext:	Not Reported
Pop serv:	55000	Connection:	18303
Area serve:	SAN BERNARDINO VIC		

K43
North
1/2 - 1 Mile
Higher

CA WELLS 807

Seq:	807	Prim sta c:	01S/03W-06H04 S
Frds no:	3610064016	County:	36
District:	13	User id:	TAN
System no:	3610064	Water type:	G
Source nam:	WELL 009A - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340700.0	Longitude:	1171300.0
Precision:	8	Status:	IU
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:	3610064	System nam:	East Valley Wd
Hqname:	Not Reported	Address:	PO BOX 3427
City:	SAN BERNARDINO	State:	CA
Zip:	92413	Zip ext:	Not Reported
Pop serv:	55000	Connection:	18303
Area serve:	SAN BERNARDINO VIC		

Sample date:	22-FEB-18	Finding:	2.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	22-FEB-18	Finding:	3.2

Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	22-FEB-18	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	22-FEB-18	Finding:	18.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	22-FEB-18	Finding:	1.9
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JAN-18	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-JAN-18	Finding:	3.
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JAN-18	Finding:	1.8
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JAN-18	Finding:	1.6
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JAN-18	Finding:	0.89
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JAN-18	Finding:	16.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	14-DEC-17	Finding:	2.2
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-DEC-17	Finding:	3.5
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-DEC-17	Finding:	17.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	25-OCT-17	Finding:	5.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-AUG-17	Finding:	3.1
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	21-AUG-17	Finding:	0.89
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	21-AUG-17	Finding:	2.2
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	21-AUG-17	Finding:	1.9
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	21-AUG-17	Finding:	15.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	25-JUL-17	Finding:	0.89
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-JUL-17	Finding:	2.4
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-JUL-17	Finding:	2.3
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-JUL-17	Finding:	2.1
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-JUL-17	Finding:	23.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	25-JUL-17	Finding:	6.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JUN-17	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-APR-17	Finding:	6.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-JAN-17	Finding:	3.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-OCT-16	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-AUG-16	Finding:	9.5
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	54.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	23-AUG-16	Finding:	16.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	27.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	23-AUG-16	Finding:	0.23
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	23-AUG-16	Finding:	280.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	170.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	5.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JUL-16	Finding:	5.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-JUN-16	Finding:	400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	7.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	130.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	5.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-JUN-16	Finding:	150.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	47.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	8.4
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	07-JUN-16	Finding:	18.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	2.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	17.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	28.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	07-JUN-16	Finding:	0.24
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	07-JUN-16	Finding:	260.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	07-JUN-16	Finding:	5.4
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-APR-16	Finding:	5.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JAN-16	Finding:	4.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-OCT-15	Finding:	24.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-AUG-15	Finding:	24.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-JUL-15	Finding:	24.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-APR-15	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-JAN-15	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-AUG-14	Finding:	170.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	52.
Chemical:	CALCIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	26-AUG-14	Finding:	19.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	8.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	19.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-AUG-14	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	0.24
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	26-AUG-14	Finding:	29.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	22-JUL-14	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-JUL-14	Finding:	1.2
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	15-JUL-14	Finding:	2.3
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	15-JUL-14	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	15-JUL-14	Finding:	18.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	15-JUL-14	Finding:	1.7
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	22-APR-14	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-JAN-14	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	22-OCT-13	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JUL-13	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-JUN-13	Finding:	5100.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-JUN-13	Finding:	11.41
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	0.21
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	260.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	4.7
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	25-JUN-13	Finding:	0.22
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	25-JUN-13	Finding:	28.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	25-JUN-13	Finding:	18.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	2.4
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	18.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	8.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	51.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	160.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L

Dlr:	0.		
Sample date:	25-JUN-13	Finding:	130.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	7.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	7.2
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	410.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	18.3
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	25-JUN-13	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-APR-13	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-OCT-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-JUN-12	Finding:	28.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	21-JUN-12	Finding:	20.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	21-JUN-12	Finding:	9.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	21-JUN-12	Finding:	56.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	21-JUN-12	Finding:	180.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	21-JUN-12	Finding:	280.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	21-JUN-12	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	21-JUN-12	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JAN-12	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

K44
North
1/2 - 1 Mile
Higher

CA WELLS **805**

Seq:	805	Prim sta c:	01S/03W-05D08 S
Frds no:	3610064007	County:	36
District:	13	User id:	TAN
System no:	3610064	Water type:	G
Source nam:	CULL WELL 03 - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340700.0	Longitude:	1171300.0
Precision:	8	Status:	IR
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:	3610064	System nam:	East Valley Wd
Hqname:	Not Reported	Address:	PO BOX 3427
City:	SAN BERNARDINO	State:	CA
Zip:	92413	Zip ext:	Not Reported
Pop serv:	55000	Connection:	18303
Area serve:	SAN BERNARDINO VIC		

K45
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000014380**

Well ID:	3610064-007	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	CULL WELL 03 (WELL 132-3) - 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=3610064-007&store_num=		
GeoTracker Data:	Not Reported		

K46
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000010935**

Well ID:	3610064-008	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	CULL WELL 04 (WELL 132-4) - 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=3610064-008&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

K47
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000006680**

Well ID:	3610064-005	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	CULL WELL 01 (WELL 132-1) - ABANDONED		
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=3610064-005&store_num=		
GeoTracker Data:	Not Reported		

48
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141325**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05J005S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19540101	Well Depth:	200
Well Depth Units:	ft	Well Hole Depth:	214
Well Hole Depth Units:	ft		

49
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141299**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06J006S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19510101	Well Depth:	148
Well Depth Units:	ft	Well Hole Depth:	150
Well Hole Depth Units:	ft		

I50
SW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141057**

Organization ID:	USGS-CA
Organization Name:	USGS California Water Science Center

Monitor Location:	001S003W07J002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	430
Well Hole Depth Units:	ft		

J51
WNW **CA WELLS** **CADDW0000009422**
1/2 - 1 Mile
Lower

Well ID:	3600147-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	MCKINLEY ST. WELL	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=3600147-001&store_num=		
GeoTracker Data:	Not Reported		

52
NNE **FED USGS** **USGS40000141379**
1/2 - 1 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05H003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19000101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	130
Well Hole Depth Units:	ft		

L53
East **FED USGS** **USGS40000141185**
1/2 - 1 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W04N000S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	750
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

L54
East
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00016039**

Well ID:	USGS-340626117122501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340626117122501	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-340626117122501&store_num=		
GeoTracker Data:	Not Reported		

L55
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000141169**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	HOLE-26 LYSIMETER AT 60		
Type:	Well: Test hole not completed as a well		
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

L56
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000141170**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	HOLE-26 LYSIMETER AT 90		
Type:	Well: Test hole not completed as a well		
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	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

L57
East
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00004484**

Well ID:	USGS-340625117122502	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340625117122502	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-340625117122502&store_num=		
GeoTracker Data:	Not Reported		

L58
East
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00016638**

Well ID:	USGS-340625117122501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340625117122501	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-340625117122501&store_num=		
GeoTracker Data:	Not Reported		

L59
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000141160**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W04N003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	835
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

M60
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141383**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05E001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported

Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	121
Well Hole Depth Units:	ft		

N61
ENE **FED USGS** **USGS40000141321**
1/2 - 1 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05J001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19090101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	186
Well Hole Depth Units:	ft		

62
West **FED USGS** **USGS40000141143**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W07B002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	97
Well Hole Depth Units:	ft		

L63
East **CA WELLS** **CADDW0000010936**
1/2 - 1 Mile
Higher

Well ID:	3610064-025	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 040A - INACTIVE	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=3610064-025&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

O64
NW
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00018452**

Well ID:	USGS-340656117133401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340656117133401	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-340656117133401&store_num=		
GeoTracker Data:	Not Reported		

O65
NW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141374**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W07A005S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	733
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

P66
NW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141330**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06J002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19330101	Well Depth:	138
Well Depth Units:	ft	Well Hole Depth:	138
Well Hole Depth Units:	ft		

O67
NW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000034657**

Well ID:	01S03W06H004S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W06H004S	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=01S03W06H004S&store_num=
GeoTracker Data:	Not Reported

O68
NW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000018282**

Well ID:	01S03W06H002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W06H002S	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=01S03W06H002S&store_num=		
GeoTracker Data:	Not Reported		

69
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000141413**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05B001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19300101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	123
Well Hole Depth Units:	ft		

Q70
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000141202**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W04N001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19540101	Well Depth:	245
Well Depth Units:	ft	Well Hole Depth:	246
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Q71
East
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00011117**

Well ID:	USGS-340629117122101	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340629117122101	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-340629117122101&store_num=		
GeoTracker Data:	Not Reported		

72
SW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000011121**

Well ID:	01S03W07H001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W07H001S	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=01S03W07H001S&store_num=		
GeoTracker Data:	Not Reported		

N73
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141335**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05H001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19490101	Well Depth:	190
Well Depth Units:	ft	Well Hole Depth:	196
Well Hole Depth Units:	ft		

R74
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141217**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported

Construction Date:	Not Reported	Well Depth:	228
Well Depth Units:	ft	Well Hole Depth:	235
Well Hole Depth Units:	ft		

M75
NW **CA WELLS** **CADDW0000004370**
1/2 - 1 Mile
Lower

Well ID:	3610064-016	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 009A - CL - INACTIVE	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=3610064-016&store_num=		
GeoTracker Data:	Not Reported		

M76
NW **CA WELLS** **CAUSGS000000252**
1/2 - 1 Mile
Lower

M77
NW **CA WELLS** **CAUSGSN00008670**
1/2 - 1 Mile
Lower

Well ID:	USGS-340659117133501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340659117133501	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-340659117133501&store_num=		
GeoTracker Data:	Not Reported		

M78
NW **FED USGS** **USGS40000141389**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06H004S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1955	Well Depth:	421
Well Depth Units:	ft	Well Hole Depth:	421
Well Hole Depth Units:	ft		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

P79
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141331**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06J001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19290101	Well Depth:	50
Well Depth Units:	ft	Well Hole Depth:	50
Well Hole Depth Units:	ft		

S80
NNW
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000010401**

Well ID:	3610064-053	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 132-5	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=3610064-053&store_num=		
GeoTracker Data:	Not Reported		

R81
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141205**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q005S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	75
Well Depth Units:	ft	Well Hole Depth:	75
Well Hole Depth Units:	ft		

R82
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141206**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q007S	Type:	Well

Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19480101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	82
Well Hole Depth Units:	ft		

83
NNE **FED USGS** **USGS40000141421**
1/2 - 1 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05B006S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19530101	Well Depth:	180
Well Depth Units:	ft	Well Hole Depth:	194
Well Hole Depth Units:	ft		

S84
NNW **CA WELLS** **CADDW0000001678**
1/2 - 1 Mile
Lower

Well ID:	3610064-006	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	CULL WELL 02 (WELL 132-2) - INACTIVE		
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=3610064-006&store_num=		
GeoTracker Data:	Not Reported		

S85
NNW **CA WELLS** **CAUSGSN00000156**
1/2 - 1 Mile
Lower

Well ID:	USGS-340706117132301	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340706117132301	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-340706117132301&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

S86
NNW
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00006877**

Well ID:	USGS-340706117132302	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340706117132302	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-340706117132302&store_num=		
GeoTracker Data:	Not Reported		

S87
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141422**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05D004S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19540101	Well Depth:	256
Well Depth Units:	ft	Well Hole Depth:	285
Well Hole Depth Units:	ft		

S88
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141423**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05D005S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

89
NNW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000024907**

Well ID:	01S03W05D001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W05D001S	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=01S03W05D001S&store_num=
GeoTracker Data: Not Reported

T90
SE **CA WELLS** **CADWR9000006810**
1/2 - 1 Mile
Higher

State Well #:	01S03W09E002S	Station ID:	6584
Well Name:	Not Reported	Basin Name:	San Bernardino
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

91
SSW **CA WELLS** **CADWR0000000216**
1/2 - 1 Mile
Lower

Well ID:	01S03W08M001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W08M001S	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=01S03W08M001S&store_num=		
GeoTracker Data:	Not Reported		

92
NNE **FED USGS** **USGS40000141412**
1/2 - 1 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05A001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	167
Well Hole Depth Units:	ft		

S93
NNW **CA WELLS** **CAUSGSN00012373**
1/2 - 1 Mile
Lower

Well ID:	USGS-340707117132402	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340707117132402	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-340707117132402&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

S94
NNW
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00017831**

Well ID:	USGS-340707117132401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340707117132401	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-340707117132401&store_num=		
GeoTracker Data:	Not Reported		

S95
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141427**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05D001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19110101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	290
Well Hole Depth Units:	ft		

S96
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141428**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05D000S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

T97
SE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141060**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W09E002S	Type:	Well

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Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19540908	Well Depth:	401
Well Depth Units:	ft	Well Hole Depth:	401
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	249	Level reading date:	2004-10-22
Feet below surface:	199.28	Feet to sea level:	Not Reported
Note:	The site had been pumped recently.		

Level reading date:	2004-04-20	Feet below surface:	187.41
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	2004-04-20	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	2003-10-22	Feet below surface:	187.28
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	2003-04-23	Feet below surface:	176.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-10-29	Feet below surface:	176.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-10-28	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	2002-04-08	Feet below surface:	161.73
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	2001-10-23	Feet below surface:	158.00
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	2001-04-18	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	2000-10-23	Feet below surface:	145.34
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1999-10-18	Feet below surface:	127.29
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1999-04-14	Feet below surface:	114.38
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1998-10-19	Feet below surface:	116.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-04-14	Feet below surface:	119.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-10-27	Feet below surface:	138.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-04-14	Feet below surface:	127.03
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.

Level reading date:	1996-10-07	Feet below surface:	136.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1996-04-22	Feet below surface:	122.14
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1995-10-24	Feet below surface:	131.68
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1995-04-19	Feet below surface:	123.63
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1994-10-26	Feet below surface:	151.77
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1994-04-20	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1993-10-19	Feet below surface:	143.81
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1993-04-12	Feet below surface:	135.92
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1992-10-31	Feet below surface:	164.14
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1992-10-29	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1992-06-12	Feet below surface:	154.34
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1991-11-27	Feet below surface:	159.95
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1991-06-17	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1991-04-24	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1990-12-03	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1990-10-30	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1990-06-25	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1989-11-28	Feet below surface:	130.21
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1989-10-26	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.

Level reading date:	1989-09-21	Feet below surface:	127.20
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1989-04-26	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1988-11-23	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1988-10-13	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1988-06-30	Feet below surface:	104.75
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1987-12-08	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1987-06-16	Feet below surface:	88.77
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1987-04-01	Feet below surface:	106.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-01-02	Feet below surface:	105.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-10-01	Feet below surface:	98.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-09-01	Feet below surface:	103.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-08-01	Feet below surface:	106.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-07-01	Feet below surface:	103.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-06-19	Feet below surface:	76.86
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1986-06-01	Feet below surface:	98.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-05-01	Feet below surface:	74.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-04-01	Feet below surface:	72.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-03-01	Feet below surface:	95.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-02-01	Feet below surface:	70.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-01-14	Feet below surface:	71.74
Feet to sea level:	Not Reported		

Note: A nearby site that taps the same aquifer was being pumped.

Level reading date:	1986-01-02	Feet below surface:	96.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-12-06	Feet below surface:	73.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-12-01	Feet below surface:	73.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-10-25	Feet below surface:	87.9
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1985-10-01	Feet below surface:	87.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-09-30	Feet below surface:	87.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1985-09-01	Feet below surface:	87.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-08-30	Feet below surface:	91.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1985-08-01	Feet below surface:	91.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-07-30	Feet below surface:	89.2
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1985-07-01	Feet below surface:	89.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-06-25	Feet below surface:	83.9
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1985-06-01	Feet below surface:	83.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-05-30	Feet below surface:	84.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-05-01	Feet below surface:	84.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-04-22	Feet below surface:	82.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1985-03-22	Feet below surface:	71.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-02-26	Feet below surface:	79.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1984-12-20	Feet below surface:	67.5
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1984-11-27	Feet below surface:	70.4
Feet to sea level:	Not Reported	Note:	The site was being pumped.

Level reading date:	1984-10-23	Feet below surface:	72.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-09-13	Feet below surface:	83.5
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1984-08-27	Feet below surface:	70.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-07-11	Feet below surface:	71.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1984-06-14	Feet below surface:	59.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-04-19	Feet below surface:	56.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-03-22	Feet below surface:	56.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-02-21	Feet below surface:	56.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-01-23	Feet below surface:	55.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-12-27	Feet below surface:	79.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1983-11-30	Feet below surface:	79.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1983-10-31	Feet below surface:	51.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-11-18	Feet below surface:	92.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-10-16	Feet below surface:	97.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-09-18	Feet below surface:	91.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-08-13	Feet below surface:	93.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-07-23	Feet below surface:	91.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-06-11	Feet below surface:	89.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-09-18	Feet below surface:	91.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-08-14	Feet below surface:	117.1
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1980-07-23	Feet below surface:	118.9
Feet to sea level:	Not Reported	Note:	The site was being pumped.

Level reading date:	1980-06-13	Feet below surface:	115.3
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1980-05-15	Feet below surface:	88.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-04-16	Feet below surface:	89.1
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1980-03-14	Feet below surface:	89.6
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1980-01-18	Feet below surface:	128.4
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-12-15	Feet below surface:	135.1
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-11-19	Feet below surface:	139.9
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-10-11	Feet below surface:	139.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-09-13	Feet below surface:	137.6
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-08-09	Feet below surface:	135.1
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-07-13	Feet below surface:	140.3
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-06-13	Feet below surface:	151.1
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-05-18	Feet below surface:	149.9
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-04-12	Feet below surface:	145.8
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-03-15	Feet below surface:	148.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-02-20	Feet below surface:	149.7
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-01-18	Feet below surface:	152.8
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1978-12-14	Feet below surface:	151.2
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1978-11-16	Feet below surface:	157.1
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1978-10-12	Feet below surface:	155.9
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1978-09-14	Feet below surface:	154.4
Feet to sea level:	Not Reported	Note:	The site was being pumped.

Level reading date:	1978-08-11	Feet below surface:	152.6
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-07-07	Feet below surface:	182.6
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-06-08	Feet below surface:	189.2
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-05-11	Feet below surface:	183.2
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-04-14	Feet below surface:	165.5
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-03-10	Feet below surface:	182.5
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-02-10	Feet below surface:	182.0
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-01-19	Feet below surface:	155.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-12-17	Feet below surface:	187.5
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1976-11-19	Feet below surface:	185.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-10-16	Feet below surface:	165.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-08-14	Feet below surface:	164.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-05-28	Feet below surface:	163.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-05-20	Feet below surface:	163.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-05-15	Feet below surface:	163.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-05-05	Feet below surface:	162.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-04-29	Feet below surface:	163.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-04-23	Feet below surface:	162.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-04-16	Feet below surface:	162.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-04-10	Feet below surface:	162.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-03-27	Feet below surface:	162.4
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1976-03-20	Feet below surface:	162.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-03-13	Feet below surface:	162.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-02-14	Feet below surface:	169.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-01-17	Feet below surface:	164.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-12-20	Feet below surface:	165.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-01-09	Feet below surface:	155.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-01-23	Feet below surface:	144.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-11-27	Feet below surface:	152.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-10-11	Feet below surface:	148.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-07-30	Feet below surface:	145.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-06-17	Feet below surface:	141.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-05-16	Feet below surface:	139.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-04-25	Feet below surface:	137.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-03-24	Feet below surface:	159.5
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1970-02-14	Feet below surface:	139.1
Feet to sea level:	Not Reported		
Note:	Other conditions existed that would affect the measured water level.		
Level reading date:	1969-08-12	Feet below surface:	129.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-07-02	Feet below surface:	121.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-06-16	Feet below surface:	146.7
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1969-04-26	Feet below surface:	124.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-04-11	Feet below surface:	155.8
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1969-04-01	Feet below surface:	146.7

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-03-06	Feet below surface:	190.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-01-29	Feet below surface:	196.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-08-21	Feet below surface:	192.5
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1968-07-26	Feet below surface:	190.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-06-19	Feet below surface:	202.7
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1967-07-27	Feet below surface:	199.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-06-02	Feet below surface:	207.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-05-01	Feet below surface:	217.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-09-29	Feet below surface:	216.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-08-03	Feet below surface:	213.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-06-28	Feet below surface:	211.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-05-14	Feet below surface:	208.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-02-24	Feet below surface:	228.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-12-27	Feet below surface:	231.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-11-29	Feet below surface:	214.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-10-27	Feet below surface:	231.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-08-24	Feet below surface:	220.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-07-19	Feet below surface:	219.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-06-01	Feet below surface:	219.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-05-02	Feet below surface:	209.3
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1965-03-22	Feet below surface:	209.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-02-24	Feet below surface:	225.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-01-27	Feet below surface:	209.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-11-20	Feet below surface:	212.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-10-28	Feet below surface:	210.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-09-24	Feet below surface:	208.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-08-17	Feet below surface:	206.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-06-27	Feet below surface:	192.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-05-27	Feet below surface:	200.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-04-06	Feet below surface:	199.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-03-27	Feet below surface:	199.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-09-25	Feet below surface:	194.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-08-26	Feet below surface:	195.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-07-30	Feet below surface:	189.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-06-26	Feet below surface:	188.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-05-29	Feet below surface:	188.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-04-29	Feet below surface:	185.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-03-19	Feet below surface:	192.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-02-28	Feet below surface:	189.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-01-28	Feet below surface:	183.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1962-10-26	Feet below surface:	183.7
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1962-09-08	Feet below surface:	179.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1962-07-25	Feet below surface:	177.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1962-06-28	Feet below surface:	178.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-11-02	Feet below surface:	171.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-10-28	Feet below surface:	169.9
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-08-10	Feet below surface:	172.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-07-13	Feet below surface:	160.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-06-16	Feet below surface:	160.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-05-23	Feet below surface:	159.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-04-17	Feet below surface:	157.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-03-09	Feet below surface:	154.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-02-17	Feet below surface:	153.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-01-27	Feet below surface:	153.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1960-11-30	Feet below surface:	155.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1960-07-05	Feet below surface:	154.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1960-02-24	Feet below surface:	129.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1960-01-13	Feet below surface:	141.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-12-07	Feet below surface:	155.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-09-17	Feet below surface:	147.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-08-05	Feet below surface:	137.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-06-11	Feet below surface:	135.8
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1959-05-14	Feet below surface:	130.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-04-16	Feet below surface:	130.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-03-13	Feet below surface:	129.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-01-28	Feet below surface:	125.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1958-11-14	Feet below surface:	135.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1958-10-08	Feet below surface:	121.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1958-09-10	Feet below surface:	110.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1958-08-07	Feet below surface:	107.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-12-27	Feet below surface:	131.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-10-30	Feet below surface:	131.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-09-28	Feet below surface:	131.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-08-28	Feet below surface:	131.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-07-18	Feet below surface:	130.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-06-06	Feet below surface:	129.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-05-03	Feet below surface:	128.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-03-27	Feet below surface:	127.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-02-24	Feet below surface:	128.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-01-16	Feet below surface:	130.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-12-03	Feet below surface:	126.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-11-07	Feet below surface:	133.1
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-10-03	Feet below surface:	131.9
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1955-09-06	Feet below surface:	129.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-08-02	Feet below surface:	126.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-07-05	Feet below surface:	138.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-06-06	Feet below surface:	128.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-05-02	Feet below surface:	113.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-03-28	Feet below surface:	116.9
Feet to sea level:	Not Reported	Note:	Not Reported

T98
SE
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00005706**

Well ID:	USGS-340605117122401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340605117122401	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-340605117122401&store_num=		
GeoTracker Data:	Not Reported		

U99
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141151**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W07B001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19250101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	97
Well Hole Depth Units:	ft		

T100
ESE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000006489**

Well ID:	3601051-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01	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=3601051-001&store_num=		

GeoTracker Data: Not Reported

V101
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141223**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q008S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19490101	Well Depth:	75
Well Depth Units:	ft	Well Hole Depth:	80
Well Hole Depth Units:	ft		

T102
ESE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000030199**

Well ID:	01S03W09E002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W09E002S	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=01S03W09E002S&store_num=		
GeoTracker Data:	Not Reported		

103
North
1/2 - 1 Mile
Lower

FED USGS **USGS40000141450**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05D003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19310101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	253
Well Hole Depth Units:	ft		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

104
NE
1/2 - 1 Mile
Higher | **CA WELLS** | **798**

Seq:	798	Prim sta c:	01S/03W-04E02 S
Frds no:	3601051001	County:	36
District:	66	User id:	36C
System no:	3601051	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	340656.0	Longitude:	1171224.0
Precision:	2	Status:	AR
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:	3601051	System nam:	Sunwest Maerials (Alabama System)
Hqname:	Not Reported	Address:	Not Reported
City:	Not Reported	State:	Not Reported
Zip:	Not Reported	Zip ext:	Not Reported
Pop serv:	25	Connection:	1
Area serve:	Not Reported		

Sample date:	12-MAR-18	Finding:	60.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		

Sample date:	12-MAR-18	Finding:	2.3
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	12-MAR-18	Finding:	44.
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		

Sample date:	12-MAR-18	Finding:	5.7
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	12-MAR-18	Finding:	0.89
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	12-MAR-18	Finding:	3.2
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	23-JAN-18	Finding:	54.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		

Sample date:	23-JAN-18	Finding:	0.89
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	23-JAN-18	Finding:	3.
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	23-JAN-18	Finding:	5.9
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JAN-18	Finding:	49.
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	23-JAN-18	Finding:	2.1
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	16-DEC-17	Finding:	42.
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	16-DEC-17	Finding:	2.4
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	16-DEC-17	Finding:	44.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	16-DEC-17	Finding:	5.5
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-NOV-17	Finding:	38.
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	08-NOV-17	Finding:	4.9
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-NOV-17	Finding:	45.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	08-NOV-17	Finding:	2.8
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-NOV-17	Finding:	1.9
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-NOV-17	Finding:	0.89
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	02-OCT-17	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	02-OCT-17	Finding:	0.45
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	02-OCT-17	Finding:	0.7
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L

Dlr:	0.		
Sample date:	02-OCT-17	Finding:	0.61
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-SEP-17	Finding:	40.
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	06-SEP-17	Finding:	5.2
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-SEP-17	Finding:	48.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	06-SEP-17	Finding:	2.8
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-SEP-17	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-SEP-17	Finding:	2.1
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	30-JUN-17	Finding:	2.6
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	30-JUN-17	Finding:	40.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	30-JUN-17	Finding:	0.89
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-JUN-17	Finding:	2.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-MAR-17	Finding:	32.
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	13-MAR-17	Finding:	4.4
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-MAR-17	Finding:	37.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	13-MAR-17	Finding:	2.6
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	13-MAR-17	Finding:	2.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-MAR-17	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	4.65
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	51.6
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	05-OCT-16	Finding:	1.07
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	29-AUG-16	Finding:	3.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-JUL-15	Finding:	3.03
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-15	Finding:	14.7
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	23-JUL-15	Finding:	2.42
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-15	Finding:	1.06
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-15	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	2.65
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	19.7
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	14-APR-15	Finding:	2.75
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	0.86
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L

Dlr:	0.		
Sample date:	12-JAN-15	Finding:	21.4
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	12-JAN-15	Finding:	2.73
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-JAN-15	Finding:	0.908
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-JAN-15	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-JAN-15	Finding:	2.75
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-OCT-14	Finding:	1.02
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-OCT-14	Finding:	4.32
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-OCT-14	Finding:	33.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	13-OCT-14	Finding:	2.72
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-OCT-14	Finding:	0.481
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-NOV-13	Finding:	3.03
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-NOV-13	Finding:	30.7
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	12-NOV-13	Finding:	0.363
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-NOV-13	Finding:	1.02
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-NOV-13	Finding:	3.6
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	12-AUG-13	Finding:	0.363
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-AUG-13	Finding:	3.54
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-AUG-13	Finding:	30.3
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	12-AUG-13	Finding:	3.38
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-AUG-13	Finding:	1.17
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-MAY-13	Finding:	2.54
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-MAY-13	Finding:	23.1
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	13-MAY-13	Finding:	2.56
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-MAY-13	Finding:	0.6
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	11-APR-13	Finding:	2.42
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	11-APR-13	Finding:	2.81
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	11-APR-13	Finding:	25.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	31-JAN-13	Finding:	1.98
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	31-JAN-13	Finding:	30.6
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	31-JAN-13	Finding:	31.
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	31-JAN-13	Finding:	3.12
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L

Dlr: 0.

U105
West
1/2 - 1 Mile
Lower

CA WELLS **808**

Seq:	808	Prim sta c:	01S/03W-06K02 S
Frds no:	3600147002	County:	36
District:	66	User id:	36C
System no:	3600147	Water type:	G
Source nam:	WELL 02	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	340625.0	Longitude:	1171400.0
Precision:	2	Status:	AR
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:	3600147	System nam:	Lankershim Mwc
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		

106
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141347**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W04E001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19270101	Well Depth:	179
Well Depth Units:	ft	Well Hole Depth:	182
Well Hole Depth Units:	ft		

V107
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141224**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q006S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19480101	Well Depth:	83
Well Depth Units:	ft	Well Hole Depth:	100

Well Hole Depth Units: ft

108
SSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000140972**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W08M001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19430101	Well Depth:	148
Well Depth Units:	ft	Well Hole Depth:	150
Well Hole Depth Units:	ft		

W109
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141262**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19430101	Well Depth:	119
Well Depth Units:	ft	Well Hole Depth:	123
Well Hole Depth Units:	ft		

W110
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141263**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06Q003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19420101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	47
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

111
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141324**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W04M001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	170
Well Hole Depth Units:	ft		

X112
SE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000035024**

Well ID:	01S03W09E001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W09E001S	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=01S03W09E001S&store_num=		
GeoTracker Data:	Not Reported		

Y113
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000006841**

State Well #:	01S03W06P006S	Station ID:	25823
Well Name:	Not Reported	Basin Name:	San Bernardino
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Y114
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141198**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06P008S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19390101	Well Depth:	88
Well Depth Units:	ft	Well Hole Depth:	96

Well Hole Depth Units: ft

Y115
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141186**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06P006S	Type:	Well
Description:	original depth 194 feet.	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19560101	Well Depth:	165
Well Depth Units:	ft	Well Hole Depth:	200
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	8	Level reading date:	2004-10-22
Feet below surface:	150.71	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	2004-04-21	Feet below surface:	144.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-10-22	Feet below surface:	140.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-04-21	Feet below surface:	135.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-10-29	Feet below surface:	130.62
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-04-08	Feet below surface:	122.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-10-23	Feet below surface:	118.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-04-19	Feet below surface:	112.54
Feet to sea level:	Not Reported	Note:	Not Reported

116
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141488**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05B002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19110101	Well Depth:	148

Well Depth Units:	ft	Well Hole Depth:	148
Well Hole Depth Units:	ft		

Z117
NNW **FED USGS** **USGS40000141453**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05D007S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	272
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Z118
NNW **FED USGS** **USGS40000141454**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W05D008S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	273
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

W119
West **FED USGS** **USGS40000141264**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06P011S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19520101	Well Depth:	73
Well Depth Units:	ft	Well Hole Depth:	76
Well Hole Depth Units:	ft		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

AA120
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141225**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06P012S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19490101	Well Depth:	85
Well Depth Units:	ft	Well Hole Depth:	88
Well Hole Depth Units:	ft		

121
NE
1/2 - 1 Mile
Higher

CA WELLS **797**

Seq:	797	Prim sta c:	01S/03W-04D03 S
Frds no:	3601060001	County:	36
District:	66	User id:	36C
System no:	3601060	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	340707.0	Longitude:	1171228.0
Precision:	2	Status:	AR
Comment 1:	8353 N. ALABAMA ST.	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:	3601060	System nam:	Robertsons Redi Mix
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		
Sample date:	18-JUL-17	Finding:	3.6
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	17.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	22.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	18-JUL-17	Finding:	380.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	7.8

Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	240.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	25.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	5.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-JUL-17	Finding:	260.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	80.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	15.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	0.15
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	18-JUL-17	Finding:	600.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	18-JUL-17	Finding:	240.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	6.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-MAY-17	Finding:	71.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	30.
Chemical:	SILICA	Report units:	MG/L
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	64.9
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	23-MAY-17	Finding:	5.31
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	67.4
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		

Sample date:	23-MAY-17	Finding:	5.94
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	1.26
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	0.47
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	570.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	220.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	23-MAY-17	Finding:	220.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-MAY-17	Finding:	1.52
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	09-MAY-17	Finding:	4.08
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	09-MAY-17	Finding:	44.8
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	09-MAY-17	Finding:	5.54
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	09-MAY-17	Finding:	66.1
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	09-MAY-17	Finding:	0.47
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	7.4
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	06-APR-17	Finding:	30.
Chemical:	SILICA	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L

Dlr:	0.		
Sample date:	06-APR-17	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	8.8e-002
Chemical:	PHOSPHATE, ORTHO	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	470.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	06-APR-17	Finding:	60.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	93.7
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	28-FEB-17	Finding:	52.8
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	28-FEB-17	Finding:	5.3
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	1.41
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	0.47
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	6.31
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-DEC-16	Finding:	1.17
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-DEC-16	Finding:	4.43
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-DEC-16	Finding:	47.1
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	08-DEC-16	Finding:	4.79
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-DEC-16	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	08-DEC-16	Finding:	37.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	08-DEC-16	Finding:	0.2
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-DEC-16	Finding:	3.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-DEC-16	Finding:	45.3
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	22-JUL-16	Finding:	48.3
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	22-JUL-16	Finding:	4.48
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	22-JUL-16	Finding:	42.8
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	22-JUL-16	Finding:	4.06
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	22-JUL-16	Finding:	1.06
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	22-JUL-16	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	20-JUN-16	Finding:	3.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-APR-16	Finding:	4.86
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-APR-16	Finding:	1.05
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-APR-16	Finding:	57.6
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	28-APR-16	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-APR-16	Finding:	3.29
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L

Dlr:	0.		
Sample date:	28-APR-16	Finding:	35.8
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	25-JAN-16	Finding:	1.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-JAN-16	Finding:	0.481
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-JAN-16	Finding:	3.29
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-JAN-16	Finding:	21.4
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	25-JAN-16	Finding:	4.11
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-OCT-15	Finding:	2.61
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-OCT-15	Finding:	1.98
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-OCT-15	Finding:	0.897
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-OCT-15	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-OCT-15	Finding:	8.4
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	14-SEP-15	Finding:	1.08
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-SEP-15	Finding:	1.66
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-SEP-15	Finding:	8.37
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	14-SEP-15	Finding:	1.97
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	14-SEP-15	Finding:	5.44
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	14-SEP-15	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	18-MAR-15	Finding:	0.3
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	18-MAR-15	Finding:	0.977
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	18-MAR-15	Finding:	27.7
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	18-MAR-15	Finding:	2.91
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	18-MAR-15	Finding:	1.2
Chemical:	BROMOFORM (THM)	Report units:	UG/L
Dlr:	1.		
Sample date:	18-MAR-15	Finding:	3.26
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JUN-14	Finding:	2.3
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JUN-14	Finding:	0.528
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JUN-14	Finding:	0.969
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JUN-14	Finding:	0.2
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JAN-14	Finding:	3.51
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JAN-14	Finding:	28.1
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	24-JAN-14	Finding:	3.4
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JAN-14	Finding:	1.06
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L

Dlr:	0.		
Sample date:	24-JAN-14	Finding:	0.401
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	22-OCT-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-JAN-13	Finding:	4.9
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-OCT-12	Finding:	3.58
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	12-OCT-12	Finding:	40.54
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	12-OCT-12	Finding:	26.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-12	Finding:	3.58
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	02-JUL-12	Finding:	41.6
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	25-APR-12	Finding:	25.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	25-APR-12	Finding:	2.89
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-APR-12	Finding:	1.94
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Y122
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141187**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06P016S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19560101	Well Depth:	142
Well Depth Units:	ft	Well Hole Depth:	178

Well Hole Depth Units: ft

AA123
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141218**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06P002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19550101	Well Depth:	148
Well Depth Units:	ft	Well Hole Depth:	152
Well Hole Depth Units:	ft		

W124
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141276**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06L003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19350101	Well Depth:	74
Well Depth Units:	ft	Well Hole Depth:	92
Well Hole Depth Units:	ft		

Y125
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000001432**

Well ID:	01S03W06P011S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W06P011S	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=01S03W06P011S&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Y126
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000022937**

Well ID:	01S03W06P001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W06P001S	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=01S03W06P001S&store_num=		
GeoTracker Data:	Not Reported		

127
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141132**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W07C002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	402
Well Depth Units:	ft	Well Hole Depth:	530
Well Hole Depth Units:	ft		

Z128
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141472**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06A001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19300101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	94
Well Hole Depth Units:	ft		

X129
SE
1/2 - 1 Mile
Higher

FED USGS **USGS40000141040**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W09E001S	Type:	Well

Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19420101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	100
Well Hole Depth Units:	ft		

130
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000141088**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W07C003S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19310101	Well Depth:	107
Well Depth Units:	ft	Well Hole Depth:	107
Well Hole Depth Units:	ft		

131
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000141175**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S003W06P015S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19550101	Well Depth:	198
Well Depth Units:	ft	Well Hole Depth:	202
Well Hole Depth Units:	ft		

132
WNW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000014641**

Well ID:	01S03W06L001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S03W06L001S	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=01S03W06L001S&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

133
WNW
1/2 - 1 Mile
Lower | **CA WELLS** | **CAUSGSN00009917**

Well ID:	USGS-340648117140402	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340648117140402	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-340648117140402&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92346	17	0

Federal EPA Radon Zone for SAN BERNARDINO 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: 92346

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 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 Californias 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 Heath 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 IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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26811 5th St
26811 5th St
Highland, CA 92346

Inquiry Number: 7120439.5
September 20, 2022

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report 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 Report includes a search of available city directory data at 5 year intervals.

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. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☐	EDR Digital Archive
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1986	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1976	☑	☐	Haines Criss-Cross Directory
1971	☑	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

26811 5th St
Highland, CA 92346

Year	*CD Image*	*Source*
5TH ST		
2017	pg A1	EDR Digital Archive
2014	pg A2	EDR Digital Archive
2010	pg A3	EDR Digital Archive
2005	pg A4	EDR Digital Archive
2000	pg A5	EDR Digital Archive
1995	pg A6	EDR Digital Archive
1992	pg A7	EDR Digital Archive
1986	pg A8	Haines Criss-Cross Directory
1986	pg A9	Haines Criss-Cross Directory
1980	pg A10	Haines Criss-Cross Directory
1976	pg A11	Haines Criss-Cross Directory
1971	pg A12	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

5TH ST 2017

26710	M & G MARKET
26811	DILLARD, PATRICIA M
26887	HEADSTART PRESCHOOL DEPT
26967	S & S INLAND STAR MERCEDES
26975	ELITE LAWN & LANDSCAPING

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

5TH ST 2014

26710 M & G MARKET
26811 OCCUPANT UNKNOWN,
26887 HEADSTART PRESCHOOL DEPT
26967 SANCHEZ AUTO REPAIR
26975 ELITE LAWN & LANDSCAPING
OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

5TH ST 2010

26710	BEVERAGE BARN
	M & G MARKET
26811	DILLARD, DEWITT T
26887	HEADSTARTPRESCHOOL DEPT
26967	SANCHEZ AUTO REPAIR
26975	OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

5TH ST 2005

26710 BEVERAGE BARN
26811 DILLARD, DEWITT T
26887 HIGHLAND HEADSTART PRESCHOOL
PRESCHOOL SERVICE DEPT SN BRNDN
26967 MARTIN AUTOMOTIVE
26975 ELITE LAWN & LANDSCAPE
OCCUPANT UNKNOWN,
VILLASCAPE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

5TH ST 2000

26710 BEVERAGE BARN
26720 LAS CARICIAS BAR
26760 OCCUPANT UNKNOWN,
26811 DILLARD, DEWITT
LINCOLN CONSTRUCTION
26887 HEADSTART PRE SCHOOL DEPARTMENT
26952 LUNA, MIGUEL A
26956 OCCUPANT UNKNOWN,
26967 MARTIN AUTOMOTIVE
OCCUPANT UNKNOWN,
26975 OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

5TH ST 1995

26664	OCCUPANT UNKNOWNN
26674	OCCUPANT UNKNOWNN
26684	OCCUPANT UNKNOWNN
26710	BEVERAGE BARN
26730	OCCUPANT UNKNOWNN
26740	OCCUPANT UNKNOWNN
26750	OCCUPANT UNKNOWNN
26760	OCCUPANT UNKNOWNN
26811	DILLARD, DEWITT
	LINCOLN CONSTRUCTION
26875	BRYANT, GERALD
26967	MARTIN AUTOMOTIVE
26975	SAN GORGONIO ANTIQUES

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

5TH ST 1992

26710	BEVERAGE BARN
26720	VAGABOND THE
26790	RAINTREE INN
26811	DILLARD, DEWITT LINCOLN CNSTRCTN
26875	BRYANT, GERALD
26967	MARTIN AUTOMOTIVE
26975	SANGORGONIO ANTIQUE

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

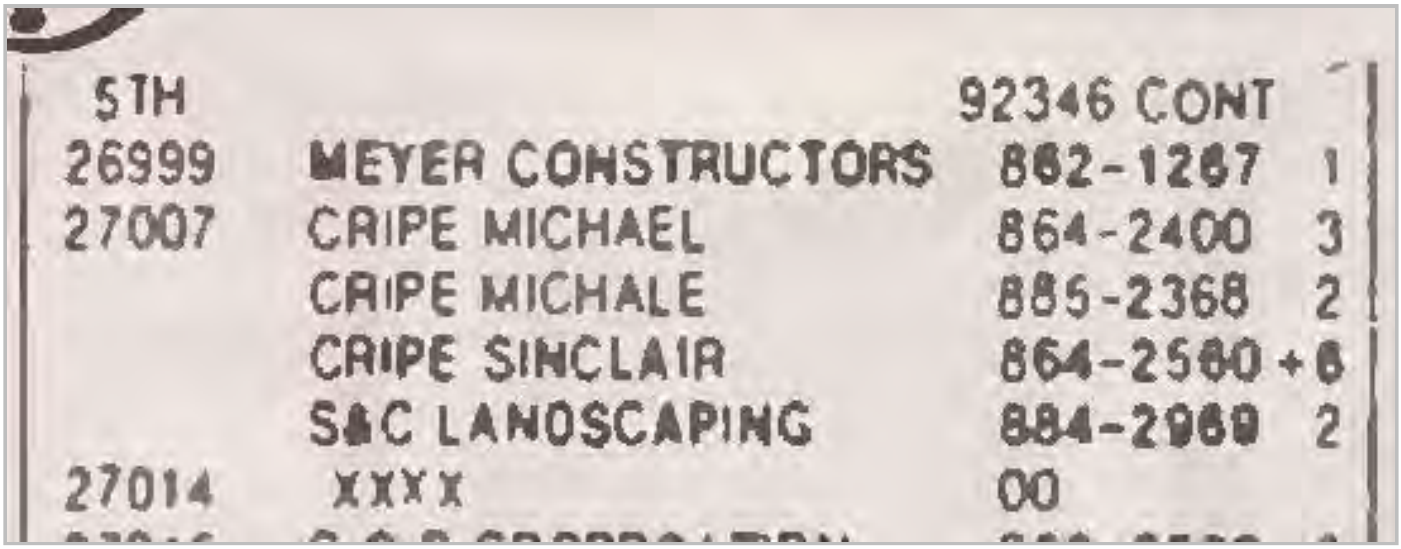
5TH ST 1986

26604	WILLIAMS KENT	864-3616	5
26624	MARTINEZ MARIO	862-8382	5
	MILLER YOUNG	862-7223	+6
26634	BANUCHI JOSE I	864-6827	+6
	ORESHAM DAVID L	864-6194	3
	PATE RUBY L	862-2874	5
26644	FIFTH ST PLAZA APTS	862-4124	4
	GREAVES RONALD J	864-6423	3
	MCLAUGHLIN L	864-0152	+6
26654	CHRISTENSEN GORDON	862-9427	+6
	CHRISTENSEN TERRI	862-9427	+6
26884	MROZINSKI KEVIN	862-8538	+6
26874	XXXX	00	
26684	THOMAS BLAIR	864-6378	5
26710	CIRCLE K FD ST 306	862-6444	
26720	VADABOND THE	862-0560	
26730	CARTER ANTHONY	884-6783	+6
	MCCARTNEY PAUL	884-0458	+6
	MCCARTNEY SHELLEY	884-0458	+6
	THOMPSON KAREN	884-7617	5
28740	XXXX	00	
26750	MERAZ J	864-6544	+6
26780	RICHARDSON KIM	884-4615	6
26790	STAGE DOOR	862-9864	
26811	AMER REALTY	862-1260	
	GILLARD GEWITT	862-1260	+6
	LINCOLN CNSTRCTN	862-1260	
26952	XXXX	00	
26967	MARTIN AUTOMOTIVE	864-0990	1
	MARTINS AUTOMOTIVE	888-9969	3
26975	SAN GORGONIO ANTO	862-0411	5

AY NOT BE KEYPUNCHED, ENTERED INTO A COMPUT

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

5TH ST 1986



5TH		92346 CONT	
26999	MEYER CONSTRUCTORS	862-1267	1
27007	CRIPE MICHAEL	864-2400	3
	CRIPE MICHALE	885-2368	2
	CRIPE SINCLAIR	864-2580	+6
	S&C LANOSCAPING	884-2969	2
27014	XXXX	00	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

5TH ST 1980

26577	HAYES BERTELL H	862-7439	
26684	XXXX	00	
26710★	CIRCLE K FD STR 306	862-6444	
26720★	VAGABOND THE	862-0560	
26790★	STAGE DOOR	862-9884	6
26811★	AMER REALTY	862-1260	6
	DILLARD DEWITT	862-1260	6
★	LINCOLN CNSTRCTN	862-1260	6
26952	WINSEL ROBT A	862-3417	5
26967★	C&E MOBILE HME SERV	889-6811	6
27007	CRIPE MICHAEL	864-2400	+0
★	S&C LANDSCAPING	864-2422	+0
27014	SIMMONS P	862-7138	+0

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

5TH ST 1976

26577	HAYES BERTELL H	862-7439
26684	XXXX	OO
26710	*CIRCLE K FOOD STORE	862-6444
26720	*VAGABOND THE	862-0560
26790	*STAGE DOOR	862-9884+6
26811	*AMER REALTY	862-1260+6
	DILLARD DEWITT	862-1260+6
	*LINCOLN CNSTRCTN	862-1260+6
26952	WINSEL ROBT A	862-3417 5
26967	*C&E MOBILE HOME SV	889-6811+6
	GRIGSBY JAS L	862-6428+6
27014	XXXX	OO

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

5TH ST 1971

```
26577 HAYES BERTELL H          862-7439
26684*ROBLEDOS SUPER SHLL      862-3770
26710*CIRCLE K FOOD STORE      862-6444
26720*VAGABONO THE             862-0560
26790*BRASS RAIL               862-9684
26811*AMERICAN HMS LINCLN      884-6468
      *LINCOLN CONSTRUCTN      884-6468
27015*PETERSON INDUSTRIES      862-7300
      *SIX SHOOTER ART         862-7300
```

26811 5th St
26811 5th St
Highland, CA 92346

Inquiry Number: 7120439.2s
September 16, 2022

EDR Summary Radius Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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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

26811 5TH ST
HIGHLAND, CA 92346

COORDINATES

Latitude (North):	34.1079200 - 34ˆ 6' 28.51''
Longitude (West):	117.2191620 - 117ˆ 13' 8.98''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	479786.0
UTM Y (Meters):	3773949.0
Elevation:	1163 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	TP
Source:	U.S. Geological Survey

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
26811 5TH ST
HIGHLAND, CA 92346

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	NORTON AIR FORCE BAS	I-10/US 395 FORMER N	NPL, SEMS, CORRACTS, RCRA-TSDF, RCRA-SQG, US ENG..	Same	489, 0.093, South
1	JOSE HUIZAR	26875 4TH PL	RCRA NonGen / NLR	Higher	137, 0.026, SE
A2	DEYANIRA REQUENES	26880 MOSSWAY ST	RCRA NonGen / NLR	Higher	362, 0.069, NNE
A3	DEYANIRA REQUENES	26880 MOSSWAY ST	RCRA NonGen / NLR	Higher	362, 0.069, NNE
B4	S&S MOTORS INC (DBA)	26967 5TH ST	RCRA NonGen / NLR	Higher	401, 0.076, East
B5	S&S INLANDSTAR	26967 5TH ST	CA CERS HAZ WASTE, CA San Bern. Co. Permit, CA...	Higher	401, 0.076, East
C6	WYLE LABS SBO EAST D	3505 E 3RD ST	RCRA-SQG	Higher	449, 0.085, SE
C7	WYLE LABS EAST TEST	3505 E 3RD ST	CA San Bern. Co. Permit	Higher	449, 0.085, SE
C8	NATIONAL TECHNICAL S	3505 E THIRD ST	RCRA NonGen / NLR	Higher	449, 0.085, SE
C9	NATIONAL TECHNICAL S	3505 E THIRD ST	CA AST, CA CERS HAZ WASTE, CA CERS TANKS, CA San...	Higher	449, 0.085, SE
B10	ELITE LAWN & LANDSCA	26975 5TH ST	CA San Bern. Co. Permit	Higher	500, 0.095, East
D11	CANDY'S	26698 3RD ST	CA San Bern. Co. Permit	Lower	561, 0.106, WSW
A12	CITY OF HIGHLAND OPE	7935 CENTRAL AVE	RCRA NonGen / NLR	Higher	563, 0.107, NE
A13	CITY OF HIGHLAND-OPE	7935 CENTRAL	CA CERS HAZ WASTE, CA San Bern. Co. Permit, CA...	Higher	563, 0.107, NE
D14	NOBLE METAL LABS INC	26672 3RD ST	RCRA NonGen / NLR	Lower	606, 0.115, WSW
D15	NOBLE METAL LAB INC	26672 THIRD ST	RCRA NonGen / NLR	Lower	606, 0.115, WSW
D16	NOBLE METAL LAB	26672 3RD ST	CA San Bern. Co. Permit	Lower	606, 0.115, WSW
D17	JC'S AUTO REPAIR	26670 3RD ST	CA CERS HAZ WASTE, CA San Bern. Co. Permit, CA...	Lower	609, 0.115, WSW
E18	MEYER CONSTRUCTORS	26999 5TH ST	CA HIST UST	Higher	803, 0.152, East
E19	MEYER CONSTRUCTORS	26999 5TH STREET	CA HIST UST, CA NPDES, CA CIWQS	Higher	803, 0.152, East
E20	EJ MEYER	26999 E 5TH STREET	RCRA NonGen / NLR	Higher	859, 0.163, East
E21	E.J. MEYER COMPANY	26999 E 5TH ST	CA CERS HAZ WASTE, CA San Bern. Co. Permit, CA...	Higher	859, 0.163, East
E22	MAYFLOWER CONTRACT S	26999 E 5TH STREET	RCRA-SQG, FINDS, ECHO	Higher	859, 0.163, East
F23	NORTON AIR FORCE BAS	106TH ST	CA UST	Higher	865, 0.164, SE
F24	NORTON AIR FORCE BAS	106TH ST	CA CERS TANKS	Higher	865, 0.164, SE
F25	MATICH CORPORATION	3231 E 3RD ST	CA AST, CA CERS HAZ WASTE, CA CERS TANKS, CA San...	Higher	880, 0.167, SSE
F26	MATICH CORP	3231 E 3RD ST	RCRA NonGen / NLR	Higher	880, 0.167, SSE
E27	CSR AIR CONDITIONING	27015 E 5TH ST	RCRA NonGen / NLR	Higher	952, 0.180, East
G28	HOME SAVINGS OF AMER	26674 WARD ST	RCRA-SQG	Lower	995, 0.188, WNW
29	CONNIE ROBLES	7858 CENTRAL AVENUE	RCRA NonGen / NLR	Higher	1056, 0.200, NNE
F30	NORTON AFB LANDFILL	I-10/US 395 FORMER N	CA SWF/LF, CA CERS	Higher	1099, 0.208, SE
H31	YVONNE MIRANDA	26731 FLEMING ST	RCRA NonGen / NLR	Lower	1164, 0.220, NNW
G32	REIMUNDO BALLESTEROS	26659 6TH STREET	RCRA NonGen / NLR	Lower	1172, 0.222, NW
H33	JONATHAN P BENSON AN	7865 CUNNINGHAM ST	RCRA NonGen / NLR	Lower	1189, 0.225, NNW
34	PENSKE	27056 5TH ST	RCRA NonGen / NLR	Higher	1204, 0.228, East
35	MONTE MOUNT	7827 COLWYN AVE	RCRA NonGen / NLR	Higher	1263, 0.239, North
I36	NORTON AIR FORCE BAS	W STREET	CA UST	Higher	1268, 0.240, SSE
I37	NORTON AIR FORCE BAS	W STREET	CA CERS TANKS	Higher	1268, 0.240, SSE
38	FORMER SKEET RANGE N		UXO	Higher	2410, 0.456, SSE

MAPPED SITES SUMMARY

Target Property Address:
26811 5TH ST
HIGHLAND, CA 92346

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
J39	SAFETY-KLEEN CORP	7979 PALM AVE	CA LUST, CA CERS HAZ WASTE, CA SWEEPS UST, CA HIST...	Higher	3021, 0.572, East
J40	SAFETY-KLEEN SYSTEMS	7979 PALM AVE #E	CA ENVIROSTOR	Higher	3021, 0.572, East
J41	SAFETY-KLEEN SYSTEMS	7979 PALM AVENUE	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-LQG, US...	Higher	3021, 0.572, East
K42	NORTON AIR FORCE BAS	2,208 ACRES;58 MI EA	CA ENVIROSTOR, CA HIST Cal-Sites, CA DEED	Lower	3681, 0.697, SW
K43	NORTON AIR FORCE BAS	NORTON AIR FORCE BAS	CA BOND EXP. PLAN	Lower	3681, 0.697, SW
K44	NORTON A F B BLDG 62	D ST	CA LUST, CA Toxic Pits, CA HIST CORTESE	Lower	3681, 0.697, SW
45	FORMER SKEET RANGE N		UXO	Lower	3736, 0.708, South
46	CYPRESS II ELEMENTAR	BASELINE/SOUTH ALLEN	CA ENVIROSTOR, CA SCH	Higher	4573, 0.866, North
L47	AAC SUPPLY DEPOT		CA ENVIROSTOR	Lower	4962, 0.940, SW
L48	NORTON COMM FAC		CA ENVIROSTOR	Lower	4985, 0.944, WSW
L49	NORTON COMMUNICATION		FUDS	Lower	4986, 0.944, WSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

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 NPL (Superfund) sites

NPL: A review of the NPL list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS Cerclis ID:: 902760 EPA Id: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

Lists of Federal sites subject to CERCLA removals and CERCLA orders

SEMS: A review of the SEMS list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS Site ID: 0902760 EPA Id: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

EXECUTIVE SUMMARY

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: A review of the CORRACTS list, as provided by EDR, and dated 06/20/2022 has revealed that there are 2 CORRACTS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***
SAFETY-KLEEN SYSTEMS EPA ID:: CAT000613927	***7979 PALM AVENUE***	***E 1/2 - 1 (0.572 mi.)***	***J41***	***18***

Lists of Federal RCRA TSD facilities

RCRA-TSDF: A review of the RCRA-TSDF list, as provided by EDR, and dated 06/20/2022 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

Lists of Federal RCRA generators

RCRA-SQG: A review of the RCRA-SQG list, as provided by EDR, and dated 06/20/2022 has revealed that there are 4 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***
WYLE LABS SBO EAST D EPA ID:: CAR000169649	3505 E 3RD ST	SE 0 - 1/8 (0.085 mi.)	C6	10
MAYFLOWER CONTRACT S EPA ID:: CAD982433757	***26999 E 5TH STREET***	***E 1/8 - 1/4 (0.163 mi.)***	***E22***	***14***

Lower Elevation	Address	Direction / Distance	Map ID	Page
HOME SAVINGS OF AMER EPA ID:: CAP000043778	26674 WARD ST	WNW 1/8 - 1/4 (0.188 mi.)	G28	15

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A review of the US ENG CONTROLS list, as provided by EDR, and dated 05/16/2022 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345 EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

US INST CONTROLS: A review of the US INST CONTROLS list, as provided by EDR, and dated 05/16/2022 has revealed that there is 1 US INST CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

Lists of state- and tribal hazardous waste facilities

CA ENVIROSTOR: A review of the CA ENVIROSTOR list, as provided by EDR, and dated 04/25/2022 has revealed that there are 5 CA ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAFETY-KLEEN SYSTEMS Facility Id: 80001784 Status: No Further Action	7979 PALM AVE #E	E 1/2 - 1 (0.572 mi.)	J40	18
CYPRESS II ELEMENTAR Facility Id: 60000047 Status: Inactive - Withdrawn	***BASELINE/SOUTH ALLEN***	***N 1/2 - 1 (0.866 mi.)***	***46***	***20***

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS Facility Id: 36970004 Status: Active	***2,208 ACRES;58 MI EA***	***SW 1/2 - 1 (0.697 mi.)***	***K42***	***19***
AAC SUPPLY DEPOT Facility Id: 80000878 Status: Inactive - Needs Evaluation		SW 1/2 - 1 (0.940 mi.)	L47	20
NORTON COMM FAC Facility Id: 80001185 Status: Inactive - Needs Evaluation		WSW 1/2 - 1 (0.944 mi.)	L48	20

EXECUTIVE SUMMARY

Lists of state and tribal landfills and solid waste disposal facilities

CA SWF/LF: A review of the CA SWF/LF list, as provided by EDR, has revealed that there is 1 CA SWF/LF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AFB LANDFILL	***I-10/US 395 FORMER N***	***SE 1/8 - 1/4 (0.208 mi.)***	***F30***	***15***
Database: SWF/LF (SWIS), Date of Government Version: 05/09/2022				
Operational Status: Closed				
Facility ID: 36-AA-0312				
Regulation Status: Unpermitted				

Lists of state and tribal registered storage tanks

CA UST: A review of the CA UST list, as provided by EDR, has revealed that there are 2 CA UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS	106TH ST	SE 1/8 - 1/4 (0.164 mi.)	F23	14
Database: MILITARY UST SITES, Date of Government Version: 05/23/2022				
NORTON AIR FORCE BAS	W STREET	SSE 1/8 - 1/4 (0.240 mi.)	I36	17
Database: MILITARY UST SITES, Date of Government Version: 05/23/2022				

CA AST: A review of the CA AST list, as provided by EDR, has revealed that there are 2 CA AST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NATIONAL TECHNICAL S	***3505 E THIRD ST***	***SE 0 - 1/8 (0.085 mi.)***	***C9***	***11***
Database: AST, Date of Government Version: 07/06/2016				
MATICH CORPORATION	***3231 E 3RD ST***	***SSE 1/8 - 1/4 (0.167 mi.)***	***F25***	***14***
Database: AST, Date of Government Version: 07/06/2016				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CA HIST Cal-Sites: A review of the CA HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 CA HIST Cal-Sites site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS	***2,208 ACRES;58 MI EA***	***SW 1/2 - 1 (0.697 mi.)***	***K42***	***19***

CA CERS HAZ WASTE: A review of the CA CERS HAZ WASTE list, as provided by EDR, and dated 04/18/2022 has revealed that there are 6 CA CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
S&S INLANDSTAR	***26967 5TH ST***	***E 0 - 1/8 (0.076 mi.)***	***B5***	***10***
NATIONAL TECHNICAL S	***3505 E THIRD ST***	***SE 0 - 1/8 (0.085 mi.)***	***C9***	***11***
CITY OF HIGHLAND-OPE	***7935 CENTRAL***	***NE 0 - 1/8 (0.107 mi.)***	***A13***	***12***
E.J. MEYER COMPANY	***26999 E 5TH ST***	***E 1/8 - 1/4 (0.163 mi.)***	***E21***	***13***
MATICH CORPORATION	***3231 E 3RD ST***	***SSE 1/8 - 1/4 (0.167 mi.)***	***F25***	***14***
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
JC'S AUTO REPAIR	***26670 3RD ST***	***WSW 0 - 1/8 (0.115 mi.)***	***D17***	***13***

CA Toxic Pits: A review of the CA Toxic Pits list, as provided by EDR, and dated 07/01/1995 has revealed that there is 1 CA Toxic Pits site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON A F B BLDG 62	***D ST***	***SW 1/2 - 1 (0.697 mi.)***	***K44***	***19***
Closure Date: / /				
Task #: 68009				
Status: CLOSED				

Local Lists of Registered Storage Tanks

CA HIST UST: A review of the CA HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 CA HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MEYER CONSTRUCTORS	26999 5TH ST	E 1/8 - 1/4 (0.152 mi.)	E18	13
Facility Id: 00000059681				
MEYER CONSTRUCTORS	***26999 5TH STREET***	***E 1/8 - 1/4 (0.152 mi.)***	***E19***	***13***

CA CERS TANKS: A review of the CA CERS TANKS list, as provided by EDR, and dated 04/18/2022 has revealed that there are 4 CA CERS TANKS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NATIONAL TECHNICAL S	***3505 E THIRD ST***	***SE 0 - 1/8 (0.085 mi.)***	***C9***	***11***
NORTON AIR FORCE BAS	106TH ST	SE 1/8 - 1/4 (0.164 mi.)	F24	14
MATICH CORPORATION	***3231 E 3RD ST***	***SSE 1/8 - 1/4 (0.167 mi.)***	***F25***	***14***
NORTON AIR FORCE BAS	W STREET	SSE 1/8 - 1/4 (0.240 mi.)	I37	17

EXECUTIVE SUMMARY

Other Ascertainable Records

RCRA NonGen / NLR: A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/20/2022 has revealed that there are 17 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JOSE HUIZAR EPA ID:: CAC003035088	26875 4TH PL	SE 0 - 1/8 (0.026 mi.)	1	9
DEYANIRA REQUENES EPA ID:: CAC003018813	26880 MOSSWAY ST	NNE 0 - 1/8 (0.069 mi.)	A2	10
DEYANIRA REQUENES EPA ID:: CAC003028051	26880 MOSSWAY ST	NNE 0 - 1/8 (0.069 mi.)	A3	10
S&S MOTORS INC (DBA) EPA ID:: CAL000405511	26967 5TH ST	E 0 - 1/8 (0.076 mi.)	B4	10
NATIONAL TECHNICAL S EPA ID:: CAL000398078	3505 E THIRD ST	SE 0 - 1/8 (0.085 mi.)	C8	11
CITY OF HIGHLAND OPE EPA ID:: CAL000339766	7935 CENTRAL AVE	NE 0 - 1/8 (0.107 mi.)	A12	12
EJ MEYER EPA ID:: CAL000258671	26999 E 5TH STREET	E 1/8 - 1/4 (0.163 mi.)	E20	13
MATICH CORP EPA ID:: CAL000314877	3231 E 3RD ST	SSE 1/8 - 1/4 (0.167 mi.)	F26	15
CSR AIR CONDITIONING EPA ID:: CAL000256584	27015 E 5TH ST	E 1/8 - 1/4 (0.180 mi.)	E27	15
CONNIE ROBLES EPA ID:: CAC003013162	7858 CENTRAL AVENUE	NNE 1/8 - 1/4 (0.200 mi.)	29	15
PENSKE EPA ID:: CAC003041416	27056 5TH ST	E 1/8 - 1/4 (0.228 mi.)	34	16
MONTE MOUNT EPA ID:: CAC003031813	7827 COLWYN AVE	N 1/8 - 1/4 (0.239 mi.)	35	16

Lower Elevation	Address	Direction / Distance	Map ID	Page
NOBLE METAL LABS INC EPA ID:: CAP000007934	26672 3RD ST	WSW 0 - 1/8 (0.115 mi.)	D14	12
NOBLE METAL LAB INC EPA ID:: CAP000182386	26672 THIRD ST	WSW 0 - 1/8 (0.115 mi.)	D15	12
YVONNE MIRANDA EPA ID:: CAC003125327	26731 FLEMING ST	NNW 1/8 - 1/4 (0.220 mi.)	H31	16
REIMUNDO BALLESTEROS EPA ID:: CAC002966722	26659 6TH STREET	NW 1/8 - 1/4 (0.222 mi.)	G32	16
JONATHAN P BENSON AN EPA ID:: CAC003096654	7865 CUNNINGHAM ST	NNW 1/8 - 1/4 (0.225 mi.)	H33	16

EXECUTIVE SUMMARY

FUDS: A review of the FUDS list, as provided by EDR, and dated 05/11/2022 has revealed that there is 1 FUDS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON COMMUNICATION		WSW 1/2 - 1 (0.944 mi.)	L49	20

ROD: A review of the ROD list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS EPA ID:: CA4570024345	***I-10/US 395 FORMER N***	***S 0 - 1/8 (0.093 mi.)***	***0***	***9***

UXO: A review of the UXO list, as provided by EDR, and dated 12/31/2020 has revealed that there are 2 UXO sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER SKEET RANGE N		SSE 1/4 - 1/2 (0.456 mi.)	38	17

Lower Elevation	Address	Direction / Distance	Map ID	Page
FORMER SKEET RANGE N		S 1/2 - 1 (0.708 mi.)	45	19

CA BOND EXP. PLAN: A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORTON AIR FORCE BAS	NORTON AIR FORCE BAS	SW 1/2 - 1 (0.697 mi.)	K43	19

CA HWP: A review of the CA HWP list, as provided by EDR, and dated 05/16/2022 has revealed that there is 1 CA HWP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAFETY-KLEEN CORP EPA ID: CAT000613927 Cleanup Status: CLOSED	***7979 PALM AVE***	***E 1/2 - 1 (0.572 mi.)***	***J39***	***17***

EXECUTIVE SUMMARY

CA San Bern. Co. Permit: A review of the CA San Bern. Co. Permit list, as provided by EDR, and dated 05/12/2022 has revealed that there are 10 CA San Bern. Co. Permit sites within approximately 0.25 miles of the target property.

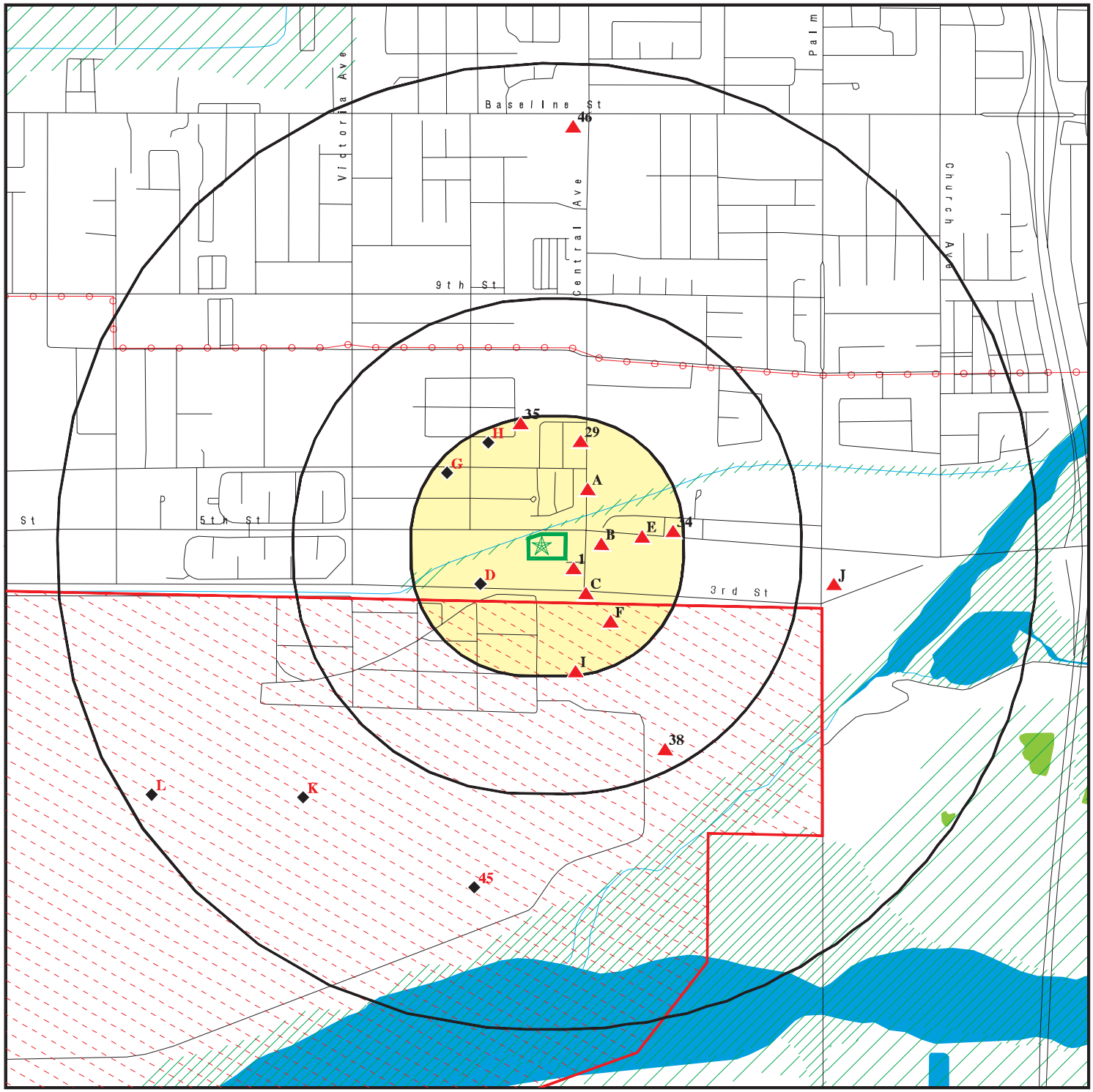
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
S&S INLANDSTAR Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0015635 Facility Id: FA0010276 Facility Id: FA0004600	***26967 5TH ST***	***E 0 - 1/8 (0.076 mi.)***	***B5***	***10***
WYLE LABS EAST TEST Facility Status: INACTIVE Facility Id: FA0010413	3505 E 3RD ST	SE 0 - 1/8 (0.085 mi.)	C7	11
NATIONAL TECHNICAL S Facility Status: ACTIVE Facility Id: FA0016030	***3505 E THIRD ST***	***SE 0 - 1/8 (0.085 mi.)***	***C9***	***11***
ELITE LAWN & LANDSCA Facility Status: INACTIVE Facility Id: FA0002894	26975 5TH ST	E 0 - 1/8 (0.095 mi.)	B10	11
CITY OF HIGHLAND-OPE Facility Status: ACTIVE Facility Id: FA0011950	***7935 CENTRAL***	***NE 0 - 1/8 (0.107 mi.)***	***A13***	***12***
E.J. MEYER COMPANY Facility Status: ACTIVE Facility Id: FA0012324	***26999 E 5TH ST***	***E 1/8 - 1/4 (0.163 mi.)***	***E21***	***13***
MATICH CORPORATION Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0010796	***3231 E 3RD ST***	***SSE 1/8 - 1/4 (0.167 mi.)***	***F25***	***14***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CANDY'S Facility Status: INACTIVE Facility Id: FA0014643	26698 3RD ST	WSW 0 - 1/8 (0.106 mi.)	D11	11
NOBLE METAL LAB Facility Status: INACTIVE Facility Id: FA0004984	26672 3RD ST	WSW 0 - 1/8 (0.115 mi.)	D16	12
JC'S AUTO REPAIR Facility Status: ACTIVE Facility Id: FA0004044	***26670 3RD ST***	***WSW 0 - 1/8 (0.115 mi.)***	***D17***	***13***

Count: 4 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HIGHLAND	S107532247		28135 E 5TH ST	92346	CA CDL
SAN BERNARDINO	S106162215	NORTON A F B BLDG 754	7TH ST	92410	CA LUST
SAN BERNARDINO	1003878981	SECCOMBE LAKE STATE REC AREA	7TH ST BETW SERRIA & WATERMAN	92410	SEMS-ARCHIVE
SAN BERNARDINO COUNT	1016139697	CIMA ROAD MINE WASTE SITE	1 MIL W OF INTE. 15 OFF CIMA R		SEMS

OVERVIEW MAP - 7120439.2S



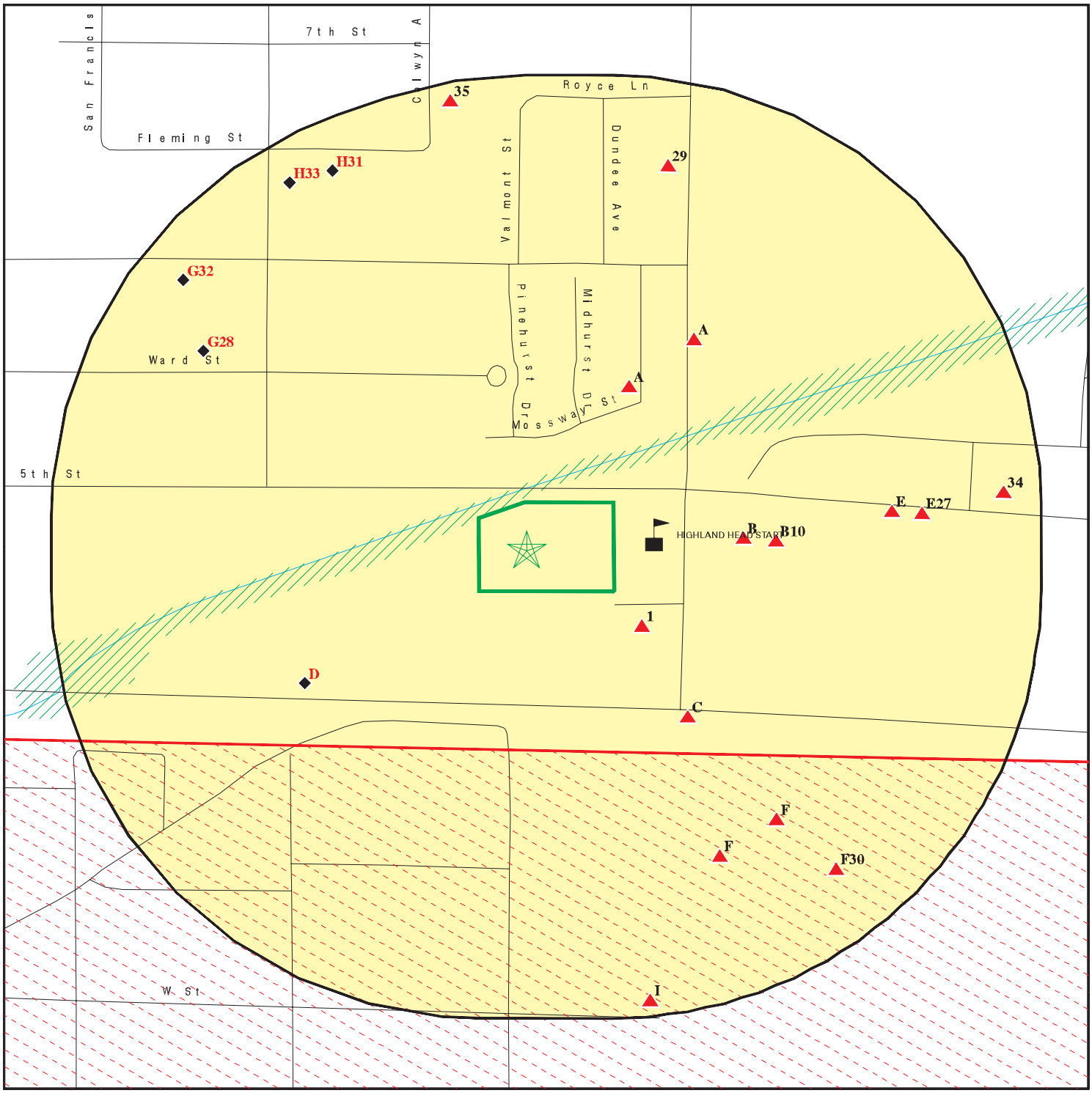
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 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: 26811 5th St	CLIENT: Hazard Management Consulting
ADDRESS: 26811 5th St Highland CA 92346	CONTACT: Troy Taylor
LAT/LONG: 34.10792 / 117.219162	INQUIRY #: 7120439.2s DATE: September 16, 2022 4:56 pm

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DETAIL MAP - 7120439.2S



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

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Areas of Concern

N

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: 26811 5th St ADDRESS: 26811 5th St Highland CA 92346 LAT/LONG: 34.10792 / 117.219162	CLIENT: Hazard Management Consulting CONTACT: Troy Taylor INQUIRY #: 7120439.2s DATE: September 16, 2022 4:57 pm

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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								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		1	0	0	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		1	0	0	NR	NR	1
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		1	0	0	1	NR	2
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		1	0	0	NR	NR	1
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		2	2	NR	NR	NR	4
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		1	0	0	NR	NR	1
US INST CONTROLS	0.500		1	0	0	NR	NR	1
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
CA RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
CA ENVIROSTOR	1.000		0	0	0	5	NR	5
Lists of state and tribal landfills and solid waste disposal facilities								
CA SWF/LF	0.500		0	1	0	NR	NR	1

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
Lists of state and tribal leaking storage tanks								
CA LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
CA CPS-SLIC	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
CA UST	0.250		0	2	NR	NR	NR	2
CA AST	0.250		1	1	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
CA VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
CA BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
CA WMUDS/SWAT	0.500		0	0	0	NR	NR	0
CA SWRCY	0.500		0	0	0	NR	NR	0
CA HAULERS	0.001		0	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
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CA HIST Cal-Sites	1.000		0	0	0	1	NR	1
CA SCH	0.250		0	0	NR	NR	NR	0
CA CDL	0.001		0	NR	NR	NR	NR	0
CA CERS HAZ WASTE	0.250		4	2	NR	NR	NR	6
CA Toxic Pits	1.000		0	0	0	1	NR	1
US CDL	0.001		0	NR	NR	NR	NR	0
CA AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
CA PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
CA SWEEPS UST	0.250		0	0	NR	NR	NR	0
CA HIST UST	0.250		0	2	NR	NR	NR	2
CA CERS TANKS	0.250		1	3	NR	NR	NR	4

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								
CA LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
CA DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CA CHMIRS	0.001		0	NR	NR	NR	NR	0
CA LDS	0.001		0	NR	NR	NR	NR	0
CA MCS	0.001		0	NR	NR	NR	NR	0
CA SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		8	9	NR	NR	NR	17
FUDS	1.000		0	0	0	1	NR	1
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		1	0	0	0	NR	1
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	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	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	1	1	NR	2
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
CA Cortese	0.500		0	0	0	NR	NR	0
CA CUPA Listings	0.250		0	0	NR	NR	NR	0
CA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA EMI	0.001		0	NR	NR	NR	NR	0
CA ENF	0.001		0	NR	NR	NR	NR	0
CA Financial Assurance	0.001		0	NR	NR	NR	NR	0
CA HAZNET	0.001		0	NR	NR	NR	NR	0
CA ICE	0.001		0	NR	NR	NR	NR	0
CA HIST CORTESE	0.500		0	0	0	NR	NR	0
CA HWP	1.000		0	0	0	1	NR	1
CA HWT	0.250		0	0	NR	NR	NR	0
NJ MANIFEST	0.250		0	0	NR	NR	NR	0
CA MINES	0.250		0	0	NR	NR	NR	0
CA MWMP	0.250		0	0	NR	NR	NR	0
CA NPDES	0.001		0	NR	NR	NR	NR	0
CA San Bern. Co. Permit	0.250		8	2	NR	NR	NR	10
CA PEST LIC	0.001		0	NR	NR	NR	NR	0
CA PROC	0.500		0	0	0	NR	NR	0
CA Notify 65	1.000		0	0	0	0	NR	0
CA UIC	0.001		0	NR	NR	NR	NR	0
CA UIC GEO	0.001		0	NR	NR	NR	NR	0
CA WASTEWATER PITS	0.500		0	0	0	NR	NR	0
CA WDS	0.001		0	NR	NR	NR	NR	0
CA WIP	0.250		0	0	NR	NR	NR	0
CA MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
CA PROJECT	0.001		0	NR	NR	NR	NR	0
CA WDR	0.001		0	NR	NR	NR	NR	0
CA CIWQS	0.001		0	NR	NR	NR	NR	0
CA CERS	0.001		0	NR	NR	NR	NR	0
CA NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
CA OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
CA PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
CA SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
CA WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
CA HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
CA RGA LF	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	31	24	1	12	0	68

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

NPL
Region
South
< 1/8
489 ft.

NORTON AIR FORCE BASE (LNDFLL #2)
I-10/US 395 FORMER NORTON AFB
SAN BERNARDINO, CA 92408

Click here for full text details

Database(s): NPL, SEMS, CORRACTS, RCRA-TSDF, RCRA-SQG, US ENG CONTROLS, US INST CONTROLS, ROD

EDR ID Number: 1000417274
EPA ID Number: CA4570024345

NPL
Cerclis ID: 902760
EPA Id CA4570024345

SEMS
Site ID 0902760
EPA Id CA4570024345

CORRACTS
EPA ID: CA4570024345

RCRA-TSDF
EPA Id CA4570024345

RCRA-SQG
EPA Id CA4570024345

US ENG CONTROLS
EPA ID: CA4570024345
EPA ID: CA4570024345

US INST CONTROLS
EPA ID: CA4570024345

ROD
EPA ID: CA4570024345

1
SE
< 1/8
0.026 mi.
137 ft.

Relative:
Higher

JOSE HUIZAR
26875 4TH PL
HIGHLAND, CA 92346

Click here for full text details

Database(s): RCRA NonGen / NLR

EDR ID Number: 1025854832
EPA ID Number: CAC003035088

RCRA NonGen / NLR
EPA Id CAC003035088

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A2 **NNE** **< 1/8** **0.069 mi.** **362 ft.** **Relative:** **Higher**	**DEYANIRA REQUENES** **26880 MOSSWAY ST** **HIGHLAND, CA 92346** Click here for full text details **RCRA NonGen / NLR** EPA Id CAC003018813	**RCRA NonGen / NLR**	**1025839214** **CAC003018813**
A3 **NNE** **< 1/8** **0.069 mi.** **362 ft.** **Relative:** **Higher**	**DEYANIRA REQUENES** **26880 MOSSWAY ST** **HIGHLAND, CA 92346** Click here for full text details **RCRA NonGen / NLR** EPA Id CAC003028051	**RCRA NonGen / NLR**	**1025848027** **CAC003028051**
B4 **East** **< 1/8** **0.076 mi.** **401 ft.** **Relative:** **Higher**	**S&S MOTORS INC (DBA) S&S INLAND STAR** **26967 5TH ST** **HIGHLAND, CA 92346** Click here for full text details **RCRA NonGen / NLR** EPA Id CAL000405511	**RCRA NonGen / NLR**	**1026490007** **CAL000405511**
B5 **East** **< 1/8** **0.076 mi.** **401 ft.** **Relative:** **Higher**	**S&S INLANDSTAR** **26967 5TH ST** **HIGHLAND, CA 92346** Click here for full text details **CA San Bern. Co. Permit** Facility Id FA0015635 Facility Id FA0010276 Facility Id FA0004600 Facility Status ACTIVE Facility Status INACTIVE	**CA CERS HAZ WASTE** **CA San Bern. Co. Permit** **CA CERS** **CA HWTS**	**S107592134** **N/A**
C6 **SE** **< 1/8** **0.085 mi.** **449 ft.** **Relative:** **Higher**	**WYLE LABS SBO EAST DEPT 551** **3505 E 3RD ST** **SAN BERNARDINO, CA 92408** Click here for full text details **RCRA-SQG** EPA Id CAR000169649	**RCRA-SQG**	**1009216575** **CAR000169649**

C7
SE
< 1/8
0.085 mi.
449 ft.

Relative:
Higher

WYLE LABS EAST TEST SITE DEPT #551
3505 E 3RD ST
SAN BERNARDINO, CA 92408

CA San Bern. Co. Permit **S108758180**
N/A

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0010413
Facility Status INACTIVE

C8
SE
< 1/8
0.085 mi.
449 ft.

Relative:
Higher

NATIONAL TECHNICAL SYSTEMS SAN BERNARDINO OPERATIO
3505 E THIRD ST
SAN BERNARDINO, CA 92408

RCRA NonGen / NLR **1024845186**
CAL000398078

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000398078

C9
SE
< 1/8
0.085 mi.
449 ft.

Relative:
Higher

NATIONAL TECHNICAL SYSTEMS
3505 E THIRD ST
SAN BERNARDINO, CA 92408

CA AST **S117896923**
CA CERS HAZ WASTE **N/A**
CA CERS TANKS
CA San Bern. Co. Permit
CA CERS

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0016030
Facility Status ACTIVE

B10
East
< 1/8
0.095 mi.
500 ft.

Relative:
Higher

ELITE LAWN & LANDSCAPE
26975 5TH ST
HIGHLAND, CA 92346

CA San Bern. Co. Permit **S106910812**
N/A

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0002894
Facility Status INACTIVE

D11
WSW
< 1/8
0.106 mi.
561 ft.

Relative:
Lower

CANDY'S
26698 3RD ST
HIGHLAND, CA 92346

CA San Bern. Co. Permit **S112142747**
N/A

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0014643
Facility Status INACTIVE

A12
NE
< 1/8
0.107 mi.
563 ft.

Relative:
Higher

CITY OF HIGHLAND OPERATIONS YARD CERS ID 10053832
7935 CENTRAL AVE
HIGHLANDS, CA 92346

RCRA NonGen / NLR **1024822177**
CAL000339766

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000339766

A13
NE
< 1/8
0.107 mi.
563 ft.

Relative:
Higher

CITY OF HIGHLAND-OPERATIONS YARD
7935 CENTRAL
HIGHLAND, CA 92346

CA CERS HAZ WASTE **S109349300**
CA San Bern. Co. Permit **N/A**
CA CERS

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0011950
Facility Status ACTIVE

D14
WSW
< 1/8
0.115 mi.
606 ft.

Relative:
Lower

NOBLE METAL LABS INC *D
26672 3RD ST
HIGHLAND, CA 92346

RCRA NonGen / NLR **1025878224**
CAP000007934

Click here for full text details

RCRA NonGen / NLR
EPA Id CAP000007934

D15
WSW
< 1/8
0.115 mi.
606 ft.

Relative:
Lower

NOBLE METAL LAB INC *D
26672 THIRD ST
HIGHLAND, CA 92346

RCRA NonGen / NLR **1025880480**
CAP000182386

Click here for full text details

RCRA NonGen / NLR
EPA Id CAP000182386

D16
WSW
< 1/8
0.115 mi.
606 ft.

Relative:
Lower

NOBLE METAL LAB
26672 3RD ST
HIGHLAND, CA 92346

CA San Bern. Co. Permit **S106911008**
N/A

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0004984
Facility Status INACTIVE

D17
WSW
< 1/8
0.115 mi.
609 ft.

Relative:
Lower

JC'S AUTO REPAIR
26670 3RD ST
HIGHLAND, CA 92346

CA CERS HAZ WASTE **S105298719**
CA San Bern. Co. Permit **N/A**
CA CERS

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0004044
Facility Status ACTIVE

E18
East
1/8-1/4
0.152 mi.
803 ft.

Relative:
Higher

MEYER CONSTRUCTORS
26999 5TH ST
HIGHLAND, CA 92346

CA HIST UST **U001575099**
N/A

Click here for full text details

CA HIST UST
Facility Id 00000059681

E19
East
1/8-1/4
0.152 mi.
803 ft.

Relative:
Higher

MEYER CONSTRUCTORS
26999 5TH STREET
HIGHLAND, CA 92346

CA HIST UST **S117704863**
CA NPDES **N/A**
CA CIWQS

Click here for full text details

E20
East
1/8-1/4
0.163 mi.
859 ft.

Relative:
Higher

EJ MEYER
26999 E 5TH STREET
HIGHLAND, CA 92346

RCRA NonGen / NLR **1024804545**
CAL000258671

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000258671

E21
East
1/8-1/4
0.163 mi.
859 ft.

Relative:
Higher

E.J. MEYER COMPANY
26999 E 5TH ST
HIGHLAND, CA 92346

CA CERS HAZ WASTE **S109598572**
CA San Bern. Co. Permit **N/A**
CA CERS

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0012324
Facility Status ACTIVE

E22
East
1/8-1/4
0.163 mi.
859 ft.

Relative:
Higher

MAYFLOWER CONTRACT SERVICES
26999 E 5TH STREET
HIGHLAND, CA 92346

RCRA-SQG
FINDS
ECHO

1000472844
CAD982433757

Click here for full text details

RCRA-SQG
EPA Id CAD982433757

FINDS
Registry ID: 110002810860

ECHO
Registry ID 110002810860

F23
SE
1/8-1/4
0.164 mi.
865 ft.

Relative:
Higher

NORTON AIR FORCE BASE - NORTON A F B BLDG 248
106TH ST
SAN BERNARDINO, CA 92409

CA UST

U004267928
N/A

Click here for full text details

F24
SE
1/8-1/4
0.164 mi.
865 ft.

Relative:
Higher

NORTON AIR FORCE BASE - NORTON A F B BLDG 248
106TH ST
SAN BERNARDINO, CA 92409

CA CERS TANKS

S123539074
N/A

Click here for full text details

F25
SSE
1/8-1/4
0.167 mi.
880 ft.

Relative:
Higher

MATICH CORPORATION
3231 E 3RD ST
SAN BERNARDINO, CA 92408

CA AST
CA CERS HAZ WASTE
CA CERS TANKS
CA San Bern. Co. Permit
CA CERS

S108419380
N/A

Click here for full text details

CA San Bern. Co. Permit
Facility Id FA0010796
Facility Status ACTIVE
Facility Status INACTIVE

F26
SSE
1/8-1/4
0.167 mi.
880 ft.

Relative:
Higher

MATICH CORP
3231 E 3RD ST
SAN BERNARDINO, CA 92408

RCRA NonGen / NLR **1024815744**
CAL000314877

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000314877

E27
East
1/8-1/4
0.180 mi.
952 ft.

Relative:
Higher

CSR AIR CONDITIONING & HEATING, INC.
27015 E 5TH ST
HIGHLAND, CA 92346

RCRA NonGen / NLR **1024804129**
CAL000256584

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000256584

G28
WNW
1/8-1/4
0.188 mi.
995 ft.

Relative:
Lower

HOME SAVINGS OF AMERICA
26674 WARD ST
HIGHLAND, CA 92346

RCRA-SQG **1025878637**
CAP000043778

Click here for full text details

RCRA-SQG
EPA Id CAP000043778

29
NNE
1/8-1/4
0.200 mi.
1056 ft.

Relative:
Higher

CONNIE ROBLES
7858 CENTRAL AVENUE
HIGHLAND, CA 92346

RCRA NonGen / NLR **1025833585**
CAC003013162

Click here for full text details

RCRA NonGen / NLR
EPA Id CAC003013162

F30
SE
1/8-1/4
0.208 mi.
1099 ft.

Relative:
Higher

NORTON AFB LANDFILL
I-10/US 395 FORMER NORTON AFB
SAN BERNARDINO, CA 92408

CA SWF/LF **S105247958**
CA CERS **N/A**

Click here for full text details

CA SWF/LF
Regulation Status Unpermitted
Facility ID 36-AA-0312
Operational Status Closed

H31
NNW
1/8-1/4
0.220 mi.
1164 ft.

Relative:
Lower

YVONNE MIRANDA
26731 FLEMING ST
HIGHLAND, CA 92346

Click here for full text details

RCRA NonGen / NLR
EPA Id CAC003125327

RCRA NonGen / NLR

1026812793
CAC003125327

G32
NW
1/8-1/4
0.222 mi.
1172 ft.

Relative:
Lower

REIMUNDO BALLESTEROS
26659 6TH STREET
HIGHLAND, CA 92346

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RCRA NonGen / NLR
EPA Id CAC002966722

RCRA NonGen / NLR

1024746950
CAC002966722

H33
NNW
1/8-1/4
0.225 mi.
1189 ft.

Relative:
Lower

JONATHAN P BENSON AND LINDA MARIE BENSON
7865 CUNNINGHAM ST
HIGHLAND, CA 92346

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RCRA NonGen / NLR
EPA Id CAC003096654

RCRA NonGen / NLR

1026708624
CAC003096654

34
East
1/8-1/4
0.228 mi.
1204 ft.

Relative:
Higher

PENSKE
27056 5TH ST
HIGHLAND, CA 92346

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RCRA NonGen / NLR
EPA Id CAC003041416

RCRA NonGen / NLR

1025860751
CAC003041416

35
North
1/8-1/4
0.239 mi.
1263 ft.

Relative:
Higher

MONTE MOUNT
7827 COLWYN AVE
HIGHLAND, CA 92346

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RCRA NonGen / NLR
EPA Id CAC003031813

RCRA NonGen / NLR

1025851691
CAC003031813

I36
SSE
1/8-1/4
0.240 mi.
1268 ft.

Relative:
Higher

NORTON AIR FORCE BASE - NORTON A F B BLDG 228
W STREET
SAN BERNARDINO, CA 92409

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CA UST **U004267914**
N/A

I37
SSE
1/8-1/4
0.240 mi.
1268 ft.

Relative:
Higher

NORTON AIR FORCE BASE - NORTON A F B BLDG 228
W STREET
SAN BERNARDINO, CA 92409

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CA CERS TANKS **S123539348**
N/A

38
SSE
1/4-1/2
0.456 mi.
2410 ft.

Relative:
Higher

FORMER SKEET RANGE NO. 2

SAN BERNARDINO, CA

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UXO **1024717560**
N/A

J39
East
1/2-1
0.572 mi.
3021 ft.

Relative:
Higher

SAFETY-KLEEN CORP
7979 PALM AVE
HIGHLAND, CA 92346

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CA LUST **1000224427**
CA CERS HAZ WASTE **N/A**
CA SWEEPS UST
CA HIST UST
CA CERS TANKS
CA CHMIRS
CA HWP
CA NPDES
CA WDS
CA CIWQS
CA CERS

CA LUST
Global Id T0607100369
Status Completed - Case Closed

CA SWEEPS UST
Status A
Comp Number 6282

CA HIST UST
Facility Id 00000006282

CA CHMIRS
OES Incident Number 8-2790

CA HWP

SAFETY-KLEEN CORP (Continued) **1000224427**

EPA ID CAT000613927
Cleanup Status CLOSED

CA WDS
Facility Id 8 36I002049
Facility Status Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

J40
East
1/2-1
0.572 mi.
3021 ft.

Relative:
Higher

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER **CA ENVIROSTOR** **S103672465**
7979 PALM AVE #E **N/A**
HIGHLAND, CA 92346

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CA ENVIROSTOR
Facility Id 80001784
Status No Further Action

J41
East
1/2-1
0.572 mi.
3021 ft.

Relative:
Higher

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER **SEMS-ARCHIVE** **1015732922**
7979 PALM AVENUE **CORRACTS** **CAT000613927**
HIGHLAND, CA 92346 **RCRA-TSDF**
RCRA-LQG
US FIN ASSUR
2020 COR ACTION
NJ MANIFEST

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SEMS-ARCHIVE
Site ID 0900292
EPA Id CAT000613927

CORRACTS
EPA ID: CAT000613927

RCRA-TSDF
EPA Id CAT000613927

RCRA-LQG
EPA Id CAT000613927

US FIN ASSUR
EPA ID CAT000613927

2020 COR ACTION
EPA ID: CAT000613927

NJ MANIFEST
EPA Id CAT000613927

K42
SW
1/2-1
0.697 mi.
3681 ft.

Relative:
Lower

NORTON AIR FORCE BASE
2,208 ACRES;58 MI EA OF LOS ANGELES, CA
SAN BERNARDINO, CA 92409

CA ENVIROSTOR
CA HIST Cal-Sites
CA DEED

S101272838
N/A

Click here for full text details

CA ENVIROSTOR
Facility Id 36970004
Status Active

CA DEED
Envirostor ID 36970004
Status ACTIVE

K43
SW
1/2-1
0.697 mi.
3681 ft.

Relative:
Lower

NORTON AIR FORCE BASE
NORTON AIR FORCE BASE
SAN BERNARDINO, CA 92409

CA BOND EXP. PLAN

S100833333
N/A

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K44
SW
1/2-1
0.697 mi.
3681 ft.

Relative:
Lower

NORTON A F B BLDG 620
D ST
SAN BERNARDINO, CA 92409

CA LUST
CA Toxic Pits
CA HIST CORTESE

S100676362
N/A

Click here for full text details

CA LUST
Facility Status Case Closed
Global ID T0607100327

CA Toxic Pits
Status CLOSED
Task # 68009
Closure Date / /

CA HIST CORTESE
Reg Id 083602593T

45
South
1/2-1
0.708 mi.
3736 ft.

Relative:
Lower

FORMER SKEET RANGE NO. 1
SAN BERNARDINO, CA

UXO

1024717552
N/A

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46
North
1/2-1
0.866 mi.
4573 ft.

Relative:
Higher

CYPRESS II ELEMENTARY SCHOOL
BASELINE/SOUTH ALLEN STREET
SAN BERNARDINO, CA 92346

CA ENVIROSTOR
CA SCH

S107736203
N/A

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CA ENVIROSTOR
Facility Id 60000047
Status Inactive - Withdrawn

CA SCH
Facility Id 60000047
Status Inactive - Withdrawn

L47
SW
1/2-1
0.940 mi.
4962 ft.

Relative:
Lower

AAC SUPPLY DEPOT
SAN BERNARDINO, CA

CA ENVIROSTOR

S107735784
N/A

Click here for full text details

CA ENVIROSTOR
Facility Id 80000878
Status Inactive - Needs Evaluation

L48
WSW
1/2-1
0.944 mi.
4985 ft.

Relative:
Lower

NORTON COMM FAC
SAN BERNARDINO, CA

CA ENVIROSTOR

S107736921
N/A

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CA ENVIROSTOR
Facility Id 80001185
Status Inactive - Needs Evaluation

L49
WSW
1/2-1
0.944 mi.
4986 ft.

Relative:
Lower

NORTON COMMUNICATION FACILITY
SAN BERNARDINO, CA

FUDS

1024903849
N/A

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	AQUEOUS FOAM	Former Fire Training Facility Assessments Listing	State Water Resources Control Board	02/20/2020	12/10/2021	02/25/2022
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
CA	BROWNFIELDS	Considered Brownfieds Sites Listing	State Water Resources Control Board	06/21/2022	06/21/2022	09/08/2022
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	12/31/2019	01/20/2021	04/08/2021
CA	CERS	CalEPA Regulated Site Portal Data	California Environmental Protection Agency	04/18/2022	04/19/2022	07/12/2022
CA	CERS HAZ WASTE	CERS HAZ WASTE	CalEPA	04/18/2022	04/19/2022	07/12/2022
CA	CERS TANKS	California Environmental Reporting System (CERS) Tanks	California Environmental Protection Agency	04/18/2022	04/19/2022	07/12/2022
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	04/03/2022	04/19/2022	07/12/2022
CA	CIWQS	California Integrated Water Quality System	State Water Resources Control Board	08/16/2022	08/17/2022	08/18/2022
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	06/21/2022	06/21/2022	09/08/2022
CA	CPS-SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	05/24/2022
CA	CUPA LIVERMORE-PLEASANTON	CUPA Facility Listing	Livermore-Pleasanton Fire Department	12/07/2021	05/09/2022	05/17/2022
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	05/31/2022	05/31/2022	08/18/2022
CA	DRYCLEAN AVAQMD	Antelope Valley Air Quality Management District Drycleaner L	Antelope Valley Air Quality Management Distri	05/25/2022	05/26/2022	08/11/2022
CA	DRYCLEAN SOUTH COAST	South Coast Air Quality Management District Drycleaner Listi	South Coast Air Quality Management District	05/20/2022	05/20/2022	08/09/2022
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	08/27/2021	09/01/2021	11/19/2021
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2020	06/13/2022	08/30/2022
CA	ENF	Enforcement Action Listing	State Water Resoruces Control Board	04/12/2022	04/19/2022	05/31/2022
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	04/25/2022	04/26/2022	07/15/2022
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	04/19/2022	04/29/2022	07/15/2022
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	08/09/2022	08/10/2022	08/30/2022
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	08/12/2022	08/16/2022	08/26/2022
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2019	04/15/2020	07/02/2020
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	05/16/2022	05/17/2022	08/03/2022
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	04/05/2022	04/05/2022	06/27/2022
CA	HWTS	Hazardous Waste Tracking System	Department of Toxic Substances Control	04/05/2022	04/05/2022	04/26/2022
CA	ICE	ICE	Department of Toxic Subsances Control	05/16/2022	05/17/2022	08/03/2022
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Qualilty Control Board	05/23/2022	05/23/2022	05/24/2022
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	05/25/2022	05/26/2022	08/11/2022
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	05/24/2022
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	05/24/2022
CA	MILITARY PRIV SITES	Military Privatized Sites (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	06/02/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	MILITARY UST SITES	Military UST Sites (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	06/02/2022
CA	MINES	Mines Site Location Listing	Department of Conservation	06/06/2022	06/07/2022	08/23/2022
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	05/06/2022	05/31/2022	08/18/2022
CA	NON-CASE INFO	Non-Case Information Sites (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	06/02/2022
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	06/10/2022	06/10/2022	08/26/2022
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	05/09/2022	05/09/2022	07/29/2022
CA	OTHER OIL GAS	Other Oil & Gas Projects Sites (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	06/02/2022
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	05/31/2022	05/31/2022	08/18/2022
CA	PFAS	PFAS Contamination Site Location Listing	State Water Resources Control Board	06/06/2022	06/07/2022	08/24/2022
CA	PROC	Certified Processors Database	Department of Conservation	06/06/2022	06/07/2022	08/23/2022
CA	PROD WATER PONDS	Produced Water Ponds Sites (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	06/02/2022
CA	PROJECT	Project Sites (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	06/02/2022
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	04/25/2022	04/26/2022	07/15/2022
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board		07/01/2013	12/30/2013
CA	SAMPLING POINT	Sampling Point ? Public Sites (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	06/02/2022
CA	SAN FRANCISCO AST	Aboveground Storage Tank Site Listing	San Francisco County Department of Public Hea	05/05/2022	05/06/2022	07/21/2022
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	04/25/2022	04/26/2022	07/15/2022
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victorv	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	05/09/2022	05/09/2022	07/29/2022
CA	SWRCY	Recycler Database	Department of Conservation	06/06/2022	06/07/2022	08/23/2022
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Deaprtment of Conservation	06/06/2022	06/07/2022	08/23/2022
CA	UIC GEO	Underground Injection Control Sites (GEOTRACKER)	State Water Resource Control Board	05/23/2022	05/23/2022	06/02/2022
CA	UST	Active UST Facilities	SWRCB	06/06/2022	06/07/2022	08/24/2022
CA	UST CLOSURE	Proposed Closure of Underground Storage Tank (UST) Cases	State Water Resources Control Board	06/01/2022	06/09/2022	08/26/2022
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	04/25/2022	04/26/2022	07/15/2022
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	02/11/2021	07/01/2021	09/29/2021
CA	WDR	Waste Discharge Requirements Listing	State Water Resources Control Board	06/06/2022	06/07/2022	08/24/2022
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)	State Water Resources Control Board	05/23/2022	05/23/2022	06/02/2022
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	06/14/2022	06/15/2022	08/22/2022
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2019	03/02/2022	03/25/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2020	11/30/2021	02/22/2022
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	03/31/2022	04/14/2022	07/12/2022
US	CORRACTS	Corrective Action Report	EPA	06/20/2022	06/21/2022	06/28/2022
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/06/2021	05/21/2021	08/11/2021
US	DOD	Department of Defense Sites	USGS	06/07/2021	07/13/2021	03/09/2022
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	Delisted NPL	National Priority List Deletions	EPA	07/26/2022	08/02/2022	08/22/2022
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	04/02/2022	04/05/2022	06/28/2022
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	06/14/2022	06/15/2022	06/21/2022
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	05/25/2021	06/24/2021	09/20/2021
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	10/14/2021	11/05/2021	02/01/2022
US	FINDS	Facility Index System/Facility Registry System	EPA	05/13/2022	05/18/2022	05/31/2022
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	05/11/2022	05/17/2022	07/29/2022
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	05/16/2022	05/17/2022	07/29/2022
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	07/26/2021	07/27/2021	10/22/2021
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	03/21/2022	03/21/2022	06/14/2022
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/28/2021	06/11/2021	09/07/2021
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/20/2022	06/13/2022	08/16/2022
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	06/02/2022	06/13/2022	08/31/2022
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/11/2022	06/13/2022	08/16/2022
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/28/2022	06/13/2022	08/16/2022
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	04/14/2022	06/13/2022	08/16/2022
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	04/20/2022	06/13/2022	08/16/2022
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	04/08/2022	06/13/2022	08/16/2022
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	04/07/2022	06/13/2022	08/16/2022
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/20/2022	06/13/2022	08/16/2022
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	06/02/2022	06/13/2022	08/31/2022
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/11/2022	06/13/2022	08/16/2022
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/28/2022	06/13/2022	08/16/2022
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	04/14/2022	06/13/2022	08/16/2022
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	04/20/2022	06/13/2022	08/16/2022
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	04/08/2022	06/13/2022	08/16/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	07/26/2022	08/02/2022	08/22/2022
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	07/26/2022	08/02/2022	08/22/2022
US	LUCIS	Land Use Control Information System	Department of the Navy	05/16/2022	05/19/2022	07/29/2022
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	03/21/2022	03/22/2022	03/25/2022
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	06/10/2022	06/14/2022	08/22/2022
US	NPL	National Priority List	EPA	07/26/2022	08/02/2022	08/22/2022
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	01/20/2022	01/20/2022	03/25/2022
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	07/14/2011	08/05/2011	09/29/2011
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015
US	PCS INACTIVE	Listing of Inactive PCS Permits	EPA	11/05/2014	01/06/2015	05/06/2015
US	PRP	Potentially Responsible Parties	EPA	07/26/2022	08/02/2022	08/31/2022
US	Proposed NPL	Proposed National Priority List Sites	EPA	07/26/2022	08/02/2022	08/22/2022
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RMP	Risk Management Plans	Environmental Protection Agency	04/27/2022	05/04/2022	05/10/2022
US	ROD	Records Of Decision	EPA	07/26/2022	08/02/2022	08/22/2022
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	07/26/2022	08/02/2022	08/22/2022
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	07/26/2022	08/02/2022	08/22/2022
US	SSTS	Section 7 Tracking Systems	EPA	07/18/2022	07/18/2022	07/29/2022
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2018	08/14/2020	11/04/2020
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/17/2020	09/10/2020
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	02/23/2022	03/10/2022	03/10/2022
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	04/30/2022	05/24/2022	07/29/2022
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	05/16/2022	05/24/2022	07/29/2022
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	06/20/2022	06/21/2022	08/31/2022
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	04/30/2022	05/24/2022	07/29/2022
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	05/16/2022	05/24/2022	07/29/2022
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	08/03/2022	08/17/2022	08/31/2022
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/06/2020	05/27/2020	08/13/2020
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2020	01/11/2022	02/14/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	05/08/2022	05/09/2022	07/28/2022
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2018	04/10/2019	05/16/2019
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	10/29/2021	01/19/2022
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2020	11/30/2021	02/18/2022
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
CA	Daycare Centers	Sensitive Receptor: Licensed Facilities	Department of Social Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
CA	State Wetlands	Wetland Inventory	Department of Fish and Wildlife			
US	Topographic Map		U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

26811 5TH ST
26811 5TH ST
HIGHLAND, CA 92346

TARGET PROPERTY COORDINATES

Latitude (North):	34.10792 - 34ˆ 6’ 28.51’’
Longitude (West):	117.219162 - 117ˆ 13’ 8.98’’
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	479786.0
UTM Y (Meters):	3773949.0
Elevation:	1163 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12014994 REDLANDS, 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).

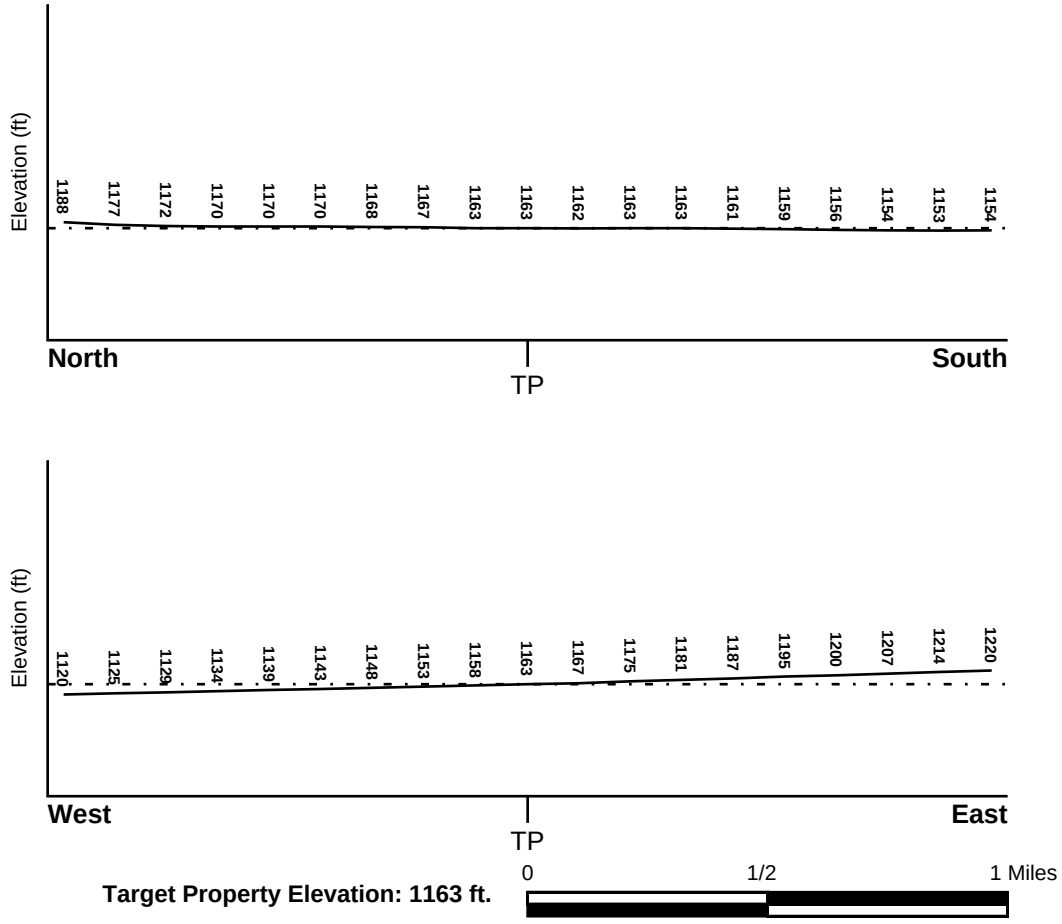
TOPOGRAPHIC INFORMATION

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 West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 1163 ft.

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

Flood Plain Panel at Target Property	FEMA Source Type
06071C8701H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06071C8702H	FEMA FIRM Flood data
06071C8703H	FEMA FIRM Flood data
06071C8704H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	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.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

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

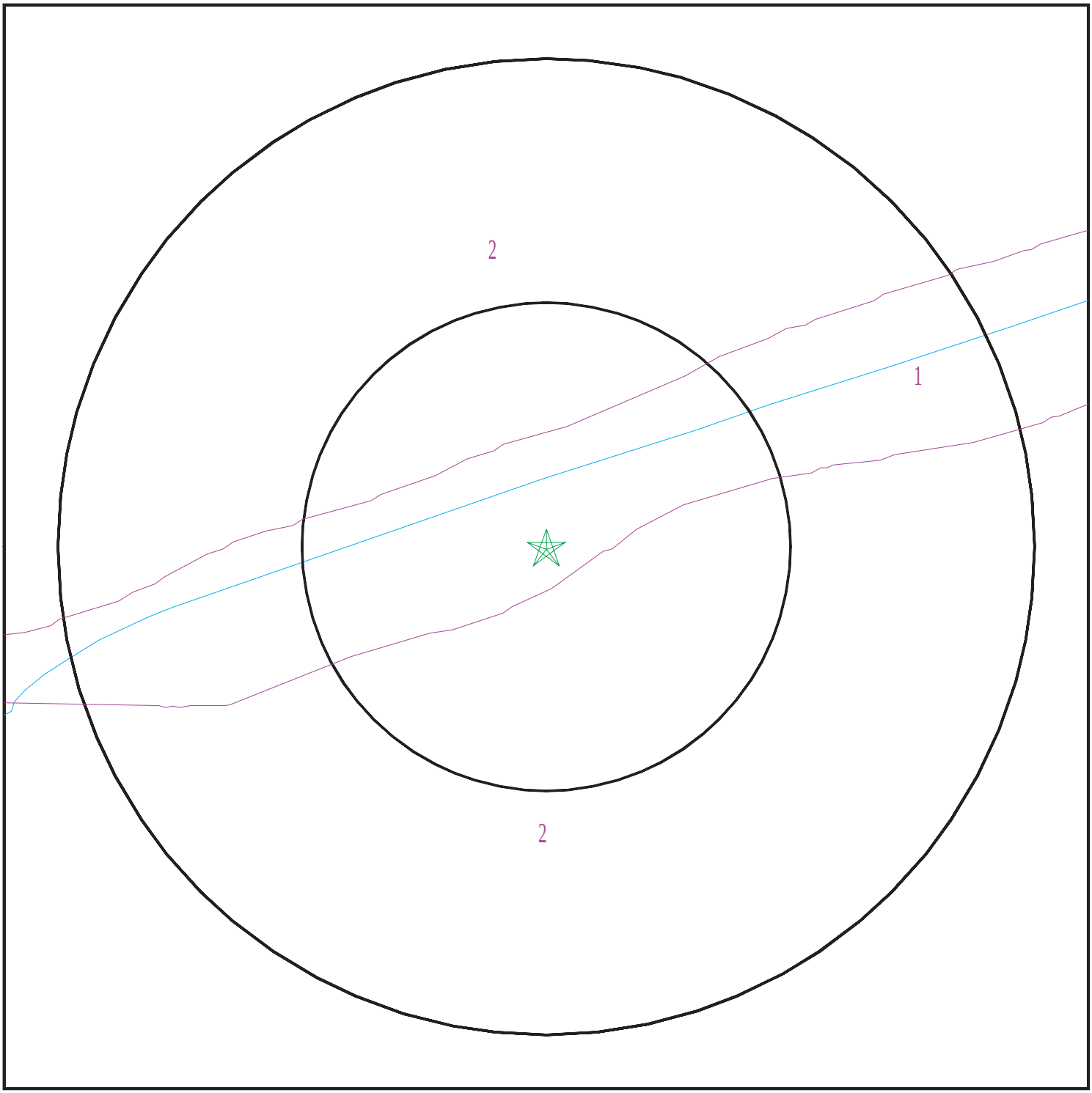
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed 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 - 7120439.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	26811 5th St	CLIENT:	Hazard Management Consulting
ADDRESS:	26811 5th St Highland CA 92346	CONTACT:	Troy Taylor
		INQUIRY #:	7120439.2s
LAT/LONG:	34.10792 / 117.219162	DATE:	September 16, 2022 4:57 pm

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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: FLUVENTS

Soil Surface Texture: gravelly sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
2	9 inches	29 inches	stratified gravelly sand to gravelly loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
3	29 inches	59 inches	stratified gravelly sand to gravelly loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: TUJUNGA

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	35 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1
2	35 inches	59 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1

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

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000141173	1/8 - 1/4 Mile ESE
A2	USGS40000141260	1/8 - 1/4 Mile NNE
A3	USGS40000141261	1/8 - 1/4 Mile NNW
B4	USGS40000141241	1/8 - 1/4 Mile WNW
B5	USGS40000141242	1/8 - 1/4 Mile WNW
6	USGS40000141259	1/8 - 1/4 Mile NE
7	USGS40000141308	1/4 - 1/2 Mile NNE
8	USGS40000141286	1/4 - 1/2 Mile NW
C9	USGS40000141203	1/4 - 1/2 Mile West
C10	USGS40000141204	1/4 - 1/2 Mile West
D12	USGS40000141172	1/4 - 1/2 Mile East
C13	USGS40000141174	1/4 - 1/2 Mile West
D14	USGS40000141197	1/4 - 1/2 Mile East
D16	USGS40000141171	1/4 - 1/2 Mile East
C17	USGS40000141213	1/4 - 1/2 Mile West
C18	USGS40000141216	1/4 - 1/2 Mile West
19	USGS40000141312	1/4 - 1/2 Mile NW
E20	USGS40000141142	1/4 - 1/2 Mile WSW
22	USGS40000141344	1/4 - 1/2 Mile NNW
F23	USGS40000141215	1/4 - 1/2 Mile East
25	USGS40000141313	1/2 - 1 Mile NW
27	USGS40000141317	1/2 - 1 Mile NE
H28	USGS40000141361	1/2 - 1 Mile NNW
30	USGS40000141161	1/2 - 1 Mile East
G31	USGS40000141131	1/2 - 1 Mile WSW
34	USGS40000141336	1/2 - 1 Mile NE
35	USGS40000141222	1/2 - 1 Mile East
I36	USGS40000141065	1/2 - 1 Mile SW
J37	USGS40000141249	1/2 - 1 Mile WNW
H38	USGS40000141388	1/2 - 1 Mile North
J39	USGS40000141271	1/2 - 1 Mile WNW
48	USGS40000141325	1/2 - 1 Mile NE
49	USGS40000141299	1/2 - 1 Mile WNW
I50	USGS40000141057	1/2 - 1 Mile SW
52	USGS40000141379	1/2 - 1 Mile NNE
L53	USGS40000141185	1/2 - 1 Mile East
L55	USGS40000141169	1/2 - 1 Mile East
L56	USGS40000141170	1/2 - 1 Mile East
L59	USGS40000141160	1/2 - 1 Mile East
M60	USGS40000141383	1/2 - 1 Mile NNW
N61	USGS40000141321	1/2 - 1 Mile ENE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
62	USGS40000141143	1/2 - 1 Mile West
O65	USGS40000141374	1/2 - 1 Mile NW
P66	USGS40000141330	1/2 - 1 Mile NW
69	USGS40000141413	1/2 - 1 Mile North
Q70	USGS40000141202	1/2 - 1 Mile East
N73	USGS40000141335	1/2 - 1 Mile NE
R74	USGS40000141217	1/2 - 1 Mile West
M78	USGS40000141389	1/2 - 1 Mile NW
P79	USGS40000141331	1/2 - 1 Mile WNW
R81	USGS40000141205	1/2 - 1 Mile West
R82	USGS40000141206	1/2 - 1 Mile West
83	USGS40000141421	1/2 - 1 Mile NNE
S87	USGS40000141422	1/2 - 1 Mile NNW
S88	USGS40000141423	1/2 - 1 Mile NNW
92	USGS40000141412	1/2 - 1 Mile NNE
S95	USGS40000141427	1/2 - 1 Mile NNW
S96	USGS40000141428	1/2 - 1 Mile NNW
T97	USGS40000141060	1/2 - 1 Mile SE
U99	USGS40000141151	1/2 - 1 Mile West
V101	USGS40000141223	1/2 - 1 Mile West
103	USGS40000141450	1/2 - 1 Mile North
106	USGS40000141347	1/2 - 1 Mile ENE
V107	USGS40000141224	1/2 - 1 Mile West
108	USGS40000140972	1/2 - 1 Mile SSW
W109	USGS40000141262	1/2 - 1 Mile West
W110	USGS40000141263	1/2 - 1 Mile West
111	USGS40000141324	1/2 - 1 Mile ENE
Y114	USGS40000141198	1/2 - 1 Mile West
Y115	USGS40000141186	1/2 - 1 Mile West
116	USGS40000141488	1/2 - 1 Mile NNE
Z117	USGS40000141453	1/2 - 1 Mile NNW
Z118	USGS40000141454	1/2 - 1 Mile NNW
W119	USGS40000141264	1/2 - 1 Mile West
AA120	USGS40000141225	1/2 - 1 Mile West
Y122	USGS40000141187	1/2 - 1 Mile West
AA123	USGS40000141218	1/2 - 1 Mile West
W124	USGS40000141276	1/2 - 1 Mile West
127	USGS40000141132	1/2 - 1 Mile West
Z128	USGS40000141472	1/2 - 1 Mile NNW
X129	USGS40000141040	1/2 - 1 Mile SE
130	USGS40000141088	1/2 - 1 Mile WSW
131	USGS40000141175	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

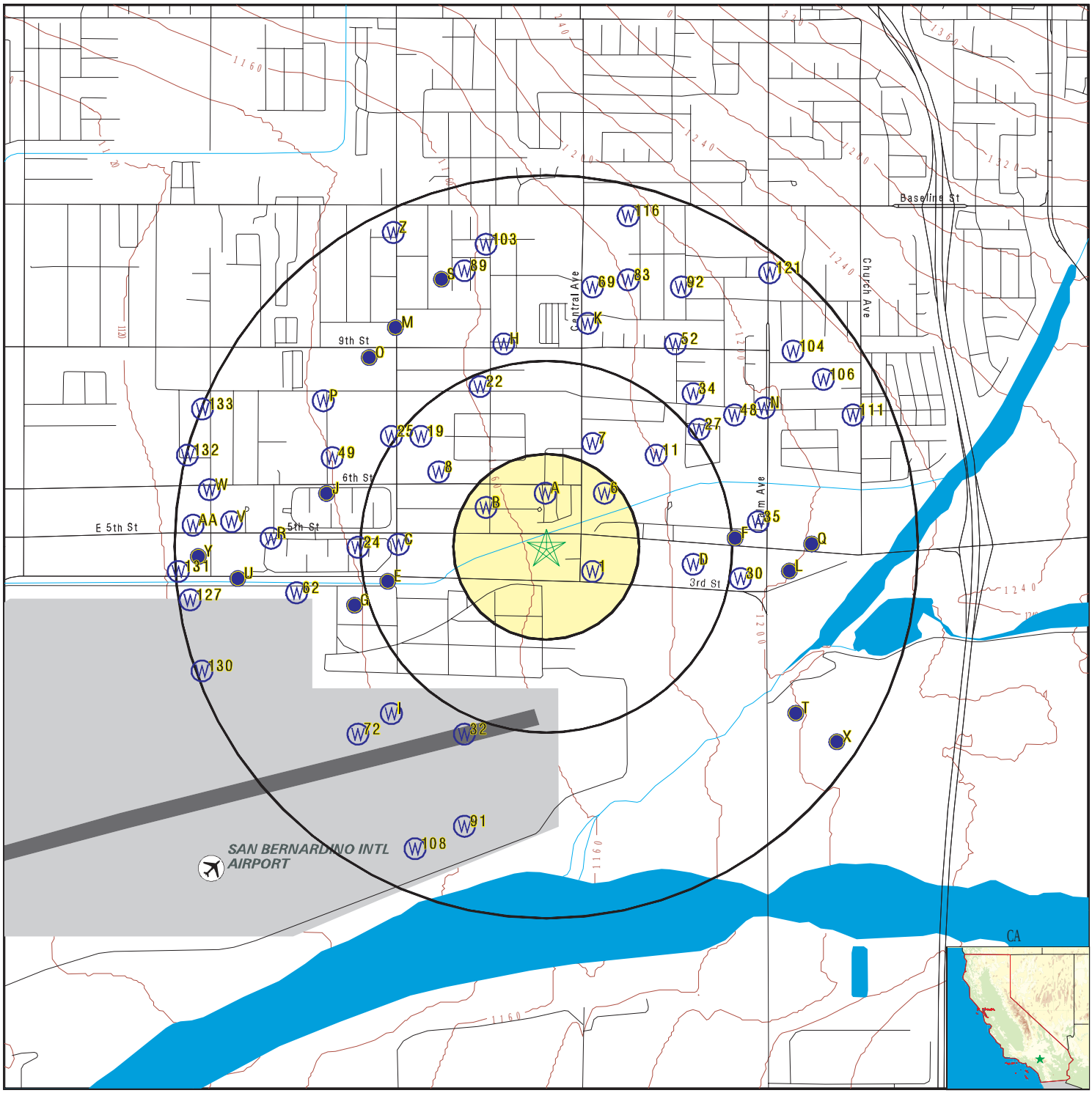
Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
11	CADWR0000003800	1/4 - 1/2 Mile NE
E15	CADDW0000007406	1/4 - 1/2 Mile WSW
E21	CADWR9000006839	1/4 - 1/2 Mile West
24	CADWR0000034942	1/2 - 1 Mile West
G26	CADDW0000010240	1/2 - 1 Mile WSW
F29	CADWR0000036115	1/2 - 1 Mile East
32	CADWR0000013479	1/2 - 1 Mile SSW
G33	809	1/2 - 1 Mile WSW
K40	803	1/2 - 1 Mile North
K41	802	1/2 - 1 Mile North
K42	804	1/2 - 1 Mile North
K43	807	1/2 - 1 Mile North
K44	805	1/2 - 1 Mile North
K45	CADDW0000014380	1/2 - 1 Mile NNE
K46	CADDW0000010935	1/2 - 1 Mile NNE
K47	CADDW0000006680	1/2 - 1 Mile NNE
J51	CADDW0000009422	1/2 - 1 Mile WNW
L54	CAUSGSN00016039	1/2 - 1 Mile East
L57	CAUSGSN00004484	1/2 - 1 Mile East
L58	CAUSGSN00016638	1/2 - 1 Mile East
L63	CADDW0000010936	1/2 - 1 Mile East
O64	CAUSGSN00018452	1/2 - 1 Mile NW
O67	CADWR0000034657	1/2 - 1 Mile NW
O68	CADWR0000018282	1/2 - 1 Mile NW
Q71	CAUSGSN00011117	1/2 - 1 Mile East
72	CADWR0000011121	1/2 - 1 Mile SW
M75	CADDW0000004370	1/2 - 1 Mile NW
M76	CAUSGS000000252	1/2 - 1 Mile NW
M77	CAUSGSN00008670	1/2 - 1 Mile NW
S80	CADDW0000010401	1/2 - 1 Mile NNW
S84	CADDW0000001678	1/2 - 1 Mile NNW
S85	CAUSGSN00000156	1/2 - 1 Mile NNW
S86	CAUSGSN00006877	1/2 - 1 Mile NNW
89	CADWR0000024907	1/2 - 1 Mile NNW
T90	CADWR9000006810	1/2 - 1 Mile SE
91	CADWR0000000216	1/2 - 1 Mile SSW
S93	CAUSGSN00012373	1/2 - 1 Mile NNW
S94	CAUSGSN00017831	1/2 - 1 Mile NNW
T98	CAUSGSN00005706	1/2 - 1 Mile SE
T100	CADDW0000006489	1/2 - 1 Mile ESE
T102	CADWR0000030199	1/2 - 1 Mile ESE
104	798	1/2 - 1 Mile NE
U105	808	1/2 - 1 Mile West
X112	CADWR0000035024	1/2 - 1 Mile SE
Y113	CADWR9000006841	1/2 - 1 Mile West
121	797	1/2 - 1 Mile NE
Y125	CADWR0000001432	1/2 - 1 Mile West
Y126	CADWR0000022937	1/2 - 1 Mile West
132	CADWR0000014641	1/2 - 1 Mile WNW
133	CAUSGSN00009917	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 7120439.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	26811 5th St	CLIENT:	Hazard Management Consulting
ADDRESS:	26811 5th St Highland CA 92346	CONTACT:	Troy Taylor
		INQUIRY #:	7120439.2s
LAT/LONG:	34.10792 / 117.219162	DATE:	September 16, 2022 4:57 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
1 **ESE** **1/8 - 1/4 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141173**
A2 **NNE** **1/8 - 1/4 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141260**
A3 **NNW** **1/8 - 1/4 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141261**
B4 **WNW** **1/8 - 1/4 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141241**
B5 **WNW** **1/8 - 1/4 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141242**
6 **NE** **1/8 - 1/4 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141259**
7 **NNE** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141308**
8 **NW** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141286**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
C9 **West** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141203**
C10 **West** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141204**
11 **NE** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR0000003800**
D12 **East** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141172**
C13 **West** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141174**
D14 **East** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141197**
E15 **WSW** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADDW0000007406**
D16 **East** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141171**
C17 **West** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141213**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
C18 **West** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141216**
19 **NW** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141312**
E20 **WSW** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141142**
E21 **West** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000006839**
22 **NNW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141344**
F23 **East** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141215**
24 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000034942**
25 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141313**
G26 **WSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADDW0000010240**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
27 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141317**
H28 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141361**
F29 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR0000036115**
30 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141161**
G31 **WSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141131**
32 **SSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000013479**
G33 **WSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**809**
34 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141336**
35 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141222**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
I36 **SW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141065**
J37 **WNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141249**
H38 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141388**
J39 **WNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141271**
K40 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**803**
K41 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**802**
K42 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**804**
K43 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**807**
K44 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**805**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
K45 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000014380**
K46 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000010935**
K47 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000006680**
48 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141325**
49 **WNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141299**
I50 **SW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141057**
J51 **WNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADDW0000009422**
52 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141379**
L53 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141185**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
L54 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00016039**
L55 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141169**
L56 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141170**
L57 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00004484**
L58 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00016638**
L59 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141160**
M60 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141383**
N61 **ENE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141321**
62 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141143**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
L63 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000010936**
O64 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00018452**
O65 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141374**
P66 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141330**
O67 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000034657**
O68 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000018282**
69 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141413**
Q70 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141202**
Q71 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00011117**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
72 **SW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000011121**
N73 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141335**
R74 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141217**
M75 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADDW0000004370**
M76 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGS000000252**
M77 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00008670**
M78 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141389**
P79 **WNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141331**
S80 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADDW0000010401**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
R81 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141205**
R82 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141206**
83 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141421**
S84 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADDW0000001678**
S85 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00000156**
S86 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00006877**
S87 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141422**
S88 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141423**
89 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000024907**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
T90 **SE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR9000006810**
91 **SSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000000216**
92 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141412**
S93 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00012373**
S94 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00017831**
S95 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141427**
S96 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141428**
T97 **SE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141060**
T98 **SE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00005706**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
U99 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141151**
T100 **ESE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000006489**
V101 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141223**
T102 **ESE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR0000030199**
103 **North** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141450**
104 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**798**
U105 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**808**
106 **ENE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141347**
V107 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141224**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
108 **SSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000140972**
W109 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141262**
W110 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141263**
111 **ENE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141324**
X112 **SE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR0000035024**
Y113 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000006841**
Y114 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141198**
Y115 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141186**
116 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141488**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
Z117 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141453**
Z118 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141454**
W119 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141264**
AA120 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141225**
121 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**797**
Y122 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141187**
AA123 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141218**
W124 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141276**
Y125 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000001432**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
Y126 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000022937**
127 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141132**
Z128 **NNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141472**
X129 **SE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000141040**
130 **WSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141088**
131 **West** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000141175**
132 **WNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000014641**
133 **WNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00009917**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92346	17	0

Federal EPA Radon Zone for SAN BERNARDINO 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: 92346

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 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.

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 Californias 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 Heath 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 IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX C

CITY OF HIGHLAND
Building and Safety
26985 Baseline
Highland, CA 92346

Application for Building Permit

PERMIT NO. 11807

Use of Permit: Tear off + Re-roof w/comp

Building Address: 26811 E. 5th St.

Owner: Dewitt Diller

Mailing Address: same

City: Highland | Zip: 92346 | Tel.:

Contractor: E.J. Jure Roofing

Address: P.O. box 2985

City: San Bern. | Zip: 92406 | Tel.: 888-5717

State Lic. & Classif.: 327479 | City Lic. #:

Arch. Engr., Designer:

Address: | Tel.:

City: | Zip: | State Lic. #:

Tract No.: | Lot No.: | APN: 390-062-45

Setbacks: F | S | L | R | R | Statistical Code: 05 | Date: 2/11/97

CONSTRUCTION ESTIMATE

1ST FL.	SQ. FT. @	$	
2ND FL.	SQ. FT. @		
POR.	SQ. FT. @		
GAR.	SQ. FT. @		
CAR P.	SQ. FT. @		
WALL	SQ. FT. @		
roof	2400 SQ. FT. @ 1.50	3600	00
ESTIMATED CONSTRUCTION VALUATION		$	

NOTE: Not to be used as property tax valuation | Constr. Fee

MECHANICAL FEES

VENT SYSTEM	FAN	EVAP. COOL	HOOD		
APPLIANCE			DRYER		
FURNACE	UNIT	WALL	FLOOR	SUSPENDED	
AIR HANDLING UNIT				CFM	
ABSORPTION SYSTEM				B.T.U.	
COMPRESSOR			HP		
HEATING SYSTEM		FORCED		GRAVITY	
BOILER			B.T.U.		
MAX. HEATER OUTPUT, B.T.U.					
ISSUANCE FEE					
				TOTAL MECH. FEE	

NO.	ELECTRICAL FEES			NO.	PLUMBING FEES	
UNITS						
					YARD SPKLR SYSTEM	
	MOBILEHOME SVC.				BAR SINK	
	POWER OUTLET				ROOF DRAINS	
					DRAINAGE PIPING	
					DRINKING FOUNTAIN	
					URINAL	
					WATER PIPING	
					FLOOR DRAIN	
					WATER SOFTENER	
	SIGN				WASHER (AUTO) (DISH)	
					GARBAGE DISPOSAL	
					LAUNDRY TRAY	
					KITCHEN SINK	
	TEMP USE PERMIT SVC				WATER CLOSET	
	POLE, TEM/PERM				LAVATORY	
	AMPERES SERV ENT				SHOWER	
	SQ. FT. @ c				BATH TUB	
	SQ FT @ c				WATER HEATER	
	SQ. FT. RESID @ 1¼c				SEWAGE DISPSAL	
	SQ. FT. GAR. @ ¼c				HOUSE SEWER	
					GAS PIPING	
	ISSUANCE FEE				ISSUANCE FEE	

PLAN CK. FEE	CONST. FEE	ELECT. FEE	S.M.I.	MECH FEE	PLUM FEE
micro					
ADD'L P/C .20	TOTAL FEES 130.20				

bt $ 001.3 58.00-30.00
015.1 72.00-49.00

check #5880

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

SIGNATURE | DATE

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason. *(Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish,or repair any structure, prior to its issuance also requires the applicant for such permit to file a signed statement that he is licensed pursuant to Division 3 of the Business and Professions Code, or that he is exempt therefrom, and the basis for the alleged exemption Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500)*

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale. *(Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon and who does such work himself or through his employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)*

☐ I, as owner of the proeprty, am exclusively contracting with licensed contractors to construct the project *(Sec 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of proeprty who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant tot he Contractor's License Law.)*

☐ I am exempt under Sec _____ B & PC. for this reason _____

Date _____ Owner _____

WORKERS' COMPENSATION DECLARATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof *(Sec. 3800, Labor Code.)*

Policy No _____ Company _____

☐ Copy is filed with the city. ☐ Certified copy is hereby furnished.

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

(This section need not be completed if the permit is for one hundred dollars ($100) valuation or less.)

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date _____ Owner _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisiosn or this permit shall be deemed revoked.

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued. *(Sec. 3097, Civil Code)*

Lender's Name _____

Lender's Address _____

This is a building permit when properly filled out, signed and validated, and is subject to expiration if work thereunder is suspended for 180 days.

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter the above mentioned property for inspection purposes.

X Signature of Applicant Joanna Wykes Date 2.11.97

Mailing Address _____ JOANNA WYKES

City, State, Zip _____

This permit becomes null and void if work is not commenced in 180 days or if work is abandoned or suspended for 180 days.

Issued by _____ Date _____

NO.	OPERATION	DATE	INSPECTOR
	BUILDING APPROVALS		
1	Set Back		
2	Ftgs & Frms		
2A	Slab Grade		
3	Steel		
4	Grout Blocks		
5	Bond Beams		
6	Roof Deck	2-13-97 DS	
7	Framing		
8	Vents		
9	Garage Fire Wall		
10	Fireplace P.L. ☐		
10A	Fireplace T.O ☐		
11	Exterior Lath		
12	Internal Lath		
12A	Drywall		
13	Finish Grade		
	INSULATION / Thick / "R" Value		
7A	Walls (Batts)		
12B	Ceiling (Batts)		
12C	Ceiling (Blown)		
14	Final	2-18-97	
	PLUMBING APPROVALS		
15	Ground Plumb		
16	Water piping		
17	Rough Plumb		
18	Vents		
19	Sewage Disposal		
20	Sewer		
21	Water Heater		
22	Water Softener		
23	Water Service		
24	Gas Test		
25	Final		
	ELECTRICAL APPROVALS		
26	Power Pole		
27	Conduit		
28	Service Entrance		
29	Wiring		
29A	Grounding Wire		
29B	Bonding		
30	Fixtures		
31	Service		
32	Final		

No.	OPERATION	DATE	INSPECT
	MECHANICAL APPROVALS		
33	Ventilation System		
34	Plenums & Ducts		
35	Furnace Compart.		
36	Inlets & Outlets		
37	Combustion Air		
38	Compressor		
39	Appl. Clearance		
40	Fire Damper		
41	Smoke Detection Device		
42	Commercial Hood		
43	Final		
OP'N NO.	**ADDITIONAL INFORMATION**		

SEWAGE SYSTEM SIZE & LOCATION

Tank Pit L.Line

REAR OF PROPERTY LINE

P/L

STREET NAME

LICENSED CONTRACTORS DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 *(commencing with Section 7000)* of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class _____ Lic. No. 327479

Date 2/11/97 Contractor EJ Ivie Roofing

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason *(Sec. 7031.5, Business and Professions Code: Any City or County which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (Commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)*

○ I, as owner of the property; or my employees with wages as their sole compensation, will do the work, and the structure is not intended for sale *(Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).*

○ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project *(Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law.).*

○ I am exempt under Sec. _____ B.&P.C. for this reason _____

Date _____ Owner _____

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

○ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

⊗ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier State Fund Policy Number 1329984-96

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

○ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to workers' compensation laws of California, and agree that if I should become subject to workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date: 2.11.96 Applicant: _____

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR ON SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued *(Sec 3097, Civ. C.)*.

Lender's Name none

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this county to enter upon the above mentioned property for inspection purposes.

Signature of Applicant or Agent _____ Date 2.11.97

HMC
HAZARD MANAGEMENT CONSULTING

ESA OWNER/OPERATOR QUESTIONNAIRE

Phase I Environmental Site Assessment
ASTM Standard 1527-13

Site:

In order to assist the purchaser qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"), the *Owner/Operator*s are requested to provide the following information (if available) to the *environmental professional*.
(Note: double-click boxes to check or uncheck)

Current Site Condition and Site History

(1) Please list all addresses currently and previously used for the Site.

26811 5th Street
Highland, CA 92346

(2) Please list the providers of the following utilities for the Site:

Water:	East Valley Water District
Natural Gas or Propane:	SoCal Gas
Electricity:	SCE
Sanitary Waste (or Septic Tank?):	Septic

(3) Are there any groundwater wells at the Site?

☑ No ☐ Yes (if yes, please describe)

(4) Please describe the current use of the Site.

Home

(5) Are you aware of previous uses of the Site?

☑ No ☐ Yes (if yes, please describe)

(6) Can you provide contact information for previous owners, operators or occupants of the Site?

☑ No ☐ Yes (if yes, please list)

(7) To the best of your knowledge, has the Site been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?

☑ No ☐ Yes (if yes, please describe)

(8) To the best of your knowledge, have any adjoining properties been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?

☑ No ☐ Yes (if yes, please describe and provide name and location)

Chemical and Hazardous Materials

(9) Other than routine janitorial and office supplies in usual and customary quantities, are chemicals, petroleum products or hazardous chemicals/substances used or stored on Site, now or previously?

☑ No ☐ Yes (if yes, please describe)

(10) Are liquid or solid wastes generated at the Site other than general municipal waste now or previously?

☑ No ☐ Yes (if yes, please describe)

(11) Are there or have there been wastewater disposal or treatment processes at the Site from equipment washdown or industrial operations?

☑ No ☐ Yes (if yes, please describe, including any pits, sumps, ponds, dry wells, etc.)

(12) Are there or have there been any electrical transformers, capacitors, ballasts, or hydraulic equipment in use at the Site? Have there been leaks? Are there records indicating the presence or absence of PCBs?

☑ No ☐ Yes (if yes, please describe as appropriate)

(13) Do you know of spills or other chemical releases that have taken place at the Site?

☑ No ☐ Yes (if yes, please describe)

(14) Has fill or waste soil been brought onto the Site?

☑ No ☐ Yes (if yes, please describe source of origin if available)

(15) To the best of your knowledge, is or has there been any significantly stained or discolored soil on the Site?

☑ No ☐ Yes (if yes, please describe)

(16) Do you know of any environmental cleanups that have taken place at the *Site*?

☑ No ☐ Yes (if yes, please describe)

(17) Do you know of any adverse environmental conditions or cleanups that have taken place at the neighboring properties?

☑ No ☐ Yes (if yes, please describe)

, Administrative Action, Violation Notices

(18) To your knowledge, are or have there been any above ground or underground tanks or other activities that included the use of significant quantities of hazardous materials at the Site?

☑ No ☐ Yes (if yes, please describe)

(19) Do you know of any pending, threatened or past litigation or administrative actions relative to hazardous materials, hazardous waste or petroleum products associated with the Site?

☑ No ☐ Yes (if yes, please describe)

(20) Do you know of any current or previous notices from any governmental entity regarding possible violations of environmental laws or possible liability relating to hazardous substances or petroleum products?

☑ No ☐ Yes (if yes, please describe)

(21) Are you aware of any environmental cleanup liens against the Site that are filed or recorded under federal, tribal, state or local law?

☑ No ☐ Yes (if yes, please describe and provide dates)

(22) Are you aware of any Activity and Use Limitations (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?

☑ No ☐ Yes (if yes, please describe)

Additional and Supportive Information

Please indicate and provide any other knowledge, or documentation with the Site that may be pertinent to the *environmental professional* (for example, copies of any available prior environmental site assessment **reports**, documents, correspondence, etc., concerning the Site and its environmental condition) and any environmental **permits** such as air quality management district, stormwater, wastewater, underground storage tanks or aboveground tanks, especially in support of "yes" answers above.

None

Thank you very much for your cooperation.

This questionnaire was completed by:

Name: Patricia M. Dillard

Signature: Patricia M Dillard Date: 09/18/22

Title: Trustee, Dillard House Trust

Please describe the length of and nature of your experience/knowledge of the Site.

Residence & Office since 1966

Appendix H-1

Preliminary Water Quality Management Plan

Preliminary

Water Quality Management Plan

For:

5TH at Central Industrial

WQP TBD

APN: 1192-561-04, -05, -06, -07

Prepared for:

Patriot Development Partners

116 Nob Avenue

Del Mar, CA 92014

858-952-4134

Prepared by:

Huitt-Zollars, Inc

3990 Concours, Suite 330

Ontario, CA 91764

909-941-7799

HZ Project # 315834.01

Submittal Date: 02/23/2023

Revision Date: TBD

Approval Date:_____

CASC
Engineering and Consulting

1470 E. Cooley Drive
Colton, CA 92324
Office: 909.783.0101
Fax: 909.783.0108

Transmitted via Std Mail

March 3, 2023

Matt Bennett
Assistant Public Works Director
CITY OF HIGHLAND
27215 Base Line
Highland, CA 92346

RECEIVED
MAR 06 2023
ENGINEERING DEPT

Subject: Recommendation of Acceptance
5th at Central Industrial, CUP23-003 C-WQMP - Patriot
Project No. WQP 23-001 (3089.31) – with Conditions

Dear Mr. Bennett:

CASC Engineering and Consulting (CASC), as a consultant to the City of Highland, has performed a review of the Conceptual Water Quality Management Plan (C-WQMP) prepared by Huitt-Zollars, Inc. (Preparer) for WQP 23-001 (3089.31) 5th at Central Industrial (Project) located on the south side of 5th Street approximately 200' west of the intersection of 5th Street and Central Avenue, APNs 1192-561-04, -05, -06, -07, and submitted by Patriot Development Partners (Applicant). Based on information presented in the C-WQMP, CASC has found that the C-WQMP is in conformance, at a conceptual level, with the document, "Technical Guidance Document for Water Quality Management Plans" (Guidance Document), prepared June 7, 2013, and approved by the Santa Ana Regional Water Quality Control Board. CASC's review and findings are limited to determination of a conceptual-level conformance with the Guidance Document only. The Applicant and Preparer of the C-WQMP remain responsible for all civil design elements and assertions in the C-WQMP, and the Applicant remains responsible for preparation of a Final Water Quality Management Plan (F-WQMP), submittal of the F-WQMP for approval, and implementation, maintenance, and funding of all elements of the F-WQMP and for any and all liability and damages (environmental or otherwise) arising out of the implementation or failure to implement any portion of the F-WQMP ultimately approved by the City.

The purpose of this letter is to transmit the conditions of CASC's recommendation for acceptance of the C-WQMP.

Applicant:	Patriot Development Partners
Project:	WQP 23-001 (3089.31) 5th at Central Industrial
Project Location:	South side of 5th Street approximately 200' west of the intersection of 5th Street and Central Avenue, APNs 1192-561-04, -05, -06, -07
Date Received:	February 23, 2023
Review Type:	Standard
Review Stage:	**Conceptual – 1st Review – Acceptance Recommended**

Conditions of Acceptance

- The Applicant shall submit, for approval, a Final WQMP that is in substantial conformance with the Conceptual WQMP and City of Highland requirements. The Final WQMP shall be in full conformance with the Guidance Document.

CASC
Engineering and Consulting

1470 E. Cooley Drive
Colton, CA 92324
Office: 909.783.0101
Fax: 909.783.0108

- Confirm the proposed storm drain and infiltration system layout. The Submitted plan shows an apparent conflict between the CMP infiltration system and Lateral A-1.
- Provide additional freeboard for the overflow location to avoid accidental discharge. See redline.
- A complete Operation and Maintenance Plan is to be included in the F-WQMP.
- Two infiltration tests using a double-ring infiltrometer shall be conducted, observed, and reported during construction once the excavation for the underground infiltration systems are complete to confirm the design infiltration rates. If the rates are less than the design infiltration rates, then the systems are to be modified to account for the lower infiltration rates. If the rates are higher than the design infiltration rates, then the system is to be constructed per plan.
- No compaction shall take place at the bottom of the excavation of the proposed underground infiltration system.
- The proposed BMP locations are not to be used for storage of equipment, vehicles, or materials during construction. The BMPs are to be protected from runoff and are not to be used as sediment traps or sediment basins during construction.
- Applicant shall include a copy of the Project's grading plans, landscape plans and utility plans with the first submittal of the Final WQMP.
- The proposed underground infiltration systems has been registered with the EPA as Class V Injection Well per e-mail dated 2/2/2023

Please forward to the preparer and applicant after review. If there are any questions regarding this conditional acceptance, please call me at (909) 809-0035, or e-mail me at mgentile@cascinc.com at your earliest convenience.

Best regards,
CASC Engineering and Consulting

Digitally signed by Michael J. Gentile, PE
Date: 2023.03.03 11:22:03 -08'00'

Michael J. Gentile, P.E., QSD
Senior Engineer

Enclosures: 1st C-WQMP Submittal

Copy: Jay Tuttle IV, City of Highland

Project Owner's Certification

This Water Quality Management Plan (WQMP) has been prepared for Patriot Development Partners by Huitt-Zollars, Inc. The WQMP is intended to comply with the requirements of the County of San Bernardino and the NPDES Areawide Stormwater Program requiring the preparation of a WQMP. The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with San Bernardino County's Municipal Storm Water Management Program and the intent of the NPDES Permit for San Bernardino County and the incorporated cities of San Bernardino County within the Santa Ana Region. Once the undersigned transfers its interest in the property, its successors in interest and the city/county shall be notified of the transfer. The new owner will be informed of its responsibility under this WQMP. A copy of the approved WQMP shall be available on the subject site in perpetuity.

"I certify under a penalty of law that the provisions (implementation, operation, maintenance, and funding) of the WQMP have been accepted and that the plan will be transferred to future successors."

.

Project Data			
Permit/Application Number(s):	TBD	Grading Permit Number(s):	TBD
Tract/Parcel Map Number(s):	TBD	Building Permit Number(s):	TBD
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract):			APN: 1192-561-04-0-000, -05-0-000, -06-0-000, -07-0-000

Owner's Signature		
Owner Name: Kevin Rice		
Title	Principal	
Company	Patriot Development Partners	
Address	116 Nob Ave. Del Mar, CA 92014	
Email	kevin@patriotdevelopmentpartners.com	
Telephone #	858-952-4134	
Signature	Date	

Preparer's Certification

Project Data			
Permit/Application Number(s):	TBD	Grading Permit Number(s):	TBD
Tract/Parcel Map Number(s):	TBD	Building Permit Number(s):	TBD
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract):			APN: 1192-561-04-0-000, -05-0-000, -06-0-000, -07-0-000

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan were prepared under my oversight and meet the requirements of Regional Water Quality Control Board Order No. R8-2010-0036."

Engineer: Ryan Peng, PE		PE Stamp Below
Title	Project Manager	
Company	Huitt-Zollars, Inc	
Address	3990 Concours, Suite 330. Ontario, CA 91764	
Email	rpeng@huitt-zollars.com	
Telephone #	909-941-7799	
Signature		
Date		

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Attachment B – Supporting Calc's, Rainfall Data & Manufacturer's Details

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Attachment E – Maintenance Agreement (will be provided in Final WQMP)

Section 1 Discretionary Permit(s)

Form 1-1 Project Information						
Project Name		5TH at Central Industrial				
Project Owner Contact Name:		Kevin Rice, Principal				
Mailing Address:	116 Nob Avenue Del Mar, CA 92014	E-mail Address:	kevin@patriotdevelopmentpartners.com	Telephone:	858-952-4134	
Permit/Application Number(s):		TBD	Tract/Parcel Map Number(s):	TBD		
Additional Information/ Comments:		None				
Description of Project:		The project is a new development of an industrial warehouse facility located southwest of 5TH Street and Central Avenue in City of Highland, California. The site is partially a residential plot with a single-family home being the main structure on the site. The eastern 5th of the site is a paved parking lot for storage housed in metal-sided structures. The rest is mostly vacant with some landscaping and trees to the northwest of the site near the residential portion and loose grass/shrubbery for the remainder of the site. The site slopes from northwest to southeast having about six (6) feet of fall. Existing runoff sheet flows southwesterly to other primarily vacant plots of land and continues south to 3rd street as it discharges to the 3rd street storm drain system. The proposed building is approximately 53,665 square feet in size on approximately 2.86 acres of land. All on-site runoff will be collected by catch basins and conveyed to the on-site underground infiltration/ detention system on the west side of the project site for treatment. The underground system is registered with the EPA as a Class V Injection Well (UIC File ID: CA-20211207-JK-2435) and sized to treat the DCV and it also detains 100-year storm fully for mitigation. Once the infiltration chamber system reaches its capacity, the system will overflow to an emergency spillway connected to the southwesterly parcel. This follows the existing drainage pattern. There is no off-site street improvement for this project; therefore, no off-site water quality treatment will be provided per the project. See WQMP site map in Attachment A for drainage areas and facility locations. The treated overflow from the proposed project site will ultimately discharge to the City Creek Channel, Twin Creek Channel, Santa Ana River and finally enter to Prado Basin.				
Provide summary of Conceptual WQMP conditions (if previously submitted and approved). Attach complete copy.		N/A				

Section 2 Project Description

2.1 Project Information

This section of the WQMP should provide the information listed below. The information provided for Conceptual/ Preliminary WQMP should give sufficient detail to identify the major proposed site design and LID BMPs and other anticipated water quality features that impact site planning. Final Project WQMP must specifically identify all BMP incorporated into the final site design and provide other detailed information as described herein.

The purpose of this information is to help determine the applicable development category, pollutants of concern, watershed description, and long-term maintenance responsibilities for the project, and any applicable water quality credits. This information will be used in conjunction with the information in Section 3, Site Description, to establish the performance criteria and to select the LID BMP or other BMP for the project or other alternative programs that the project will participate in, which are described in Section 4.

Form 2.1-1 Description of Proposed Project

1 Development Category (Select all that apply):

☐ Significant re-development involving the addition or replacement of 5,000 ft² or more of impervious surface on an already developed site	☒ New development involving the creation of 10,000 ft² or more of impervious surface collectively over entire site	☐ Automotive repair shops with standard industrial classification (SIC) codes 5013, 5014, 5541, 7532- 7534, 7536-7539	☐ Restaurants (with SIC code 5812) where the land area of development is 5,000 ft² or more
☐ Hillside developments of 5,000 ft² or more which are located on areas with known erosive soil conditions or where the natural slope is 25 percent or more	☐ Developments of 2,500 ft² of impervious surface or more adjacent to (within 200 ft) or discharging directly into environmentally sensitive areas or waterbodies listed on the CWA Section 303(d) list of impaired waters.	☒ Parking lots of 5,000 ft² or more exposed to storm water	☐ Retail gasoline outlets that are either 5,000 ft² or more, or have a projected average daily traffic of 100 or more vehicles per day

☐ Non-Priority / Non-Category Project *May require source control LID BMPs and other LIP requirements. Please consult with local jurisdiction on specific requirements*.

2 Project Area (ft2):	124,788	**3** Number of Dwelling Units:	N/A	**4** SIC Code:	4581, 4213-4215

5 Is Project going to be phased? Yes ☐ No ☒ *If yes, ensure that the WQMP evaluates each phase as a distinct DA, requiring LID BMPs to address runoff at time of completion.*

6 Does Project include roads? Yes ☐ No ☒ *If yes, ensure that applicable requirements for transportation projects are addressed (see Appendix A of TGD for WQMP)*

2.2 Property Ownership/Management

Describe the ownership/management of all portions of the project and site. State whether any infrastructure will transfer to public agencies (City, County, Caltrans, etc.) after project completion. State if a homeowners or property owners association will be formed and be responsible for the long-term maintenance of project stormwater facilities. Describe any lot-level stormwater features that will be the responsibility of individual property owners.

Form 2.2-1 Property Ownership/Management

Describe property ownership/management responsible for long-term maintenance of WQMP stormwater facilities:

This property is being developed and owned by Patriot Development Partners, who will be the entity responsible for long term maintenance of WQMP Storm Drain Water Facilities throughout the site.

Owner/ Developer Name: Patriot Development Partners

Address: 116 Nob Ave. Del Mar, CA 92014
Contact Person: Kevin Rice

Phone: 858-952-4134

2.3 Potential Stormwater Pollutants

Determine and describe expected stormwater pollutants of concern based on land uses and site activities (refer to Table 3-3 in the TGD for WQMP).

Form 2.3-1 Pollutants of Concern

Pollutant	Please check: E=Expected, N=Not Expected		Additional Information and Comments
Pathogens (Bacterial / Virus)	E ☒	N ☐	Pathogens are typically caused by the transport of animal or human fecal wastes from the watershed.
Nutrients - Phosphorous	E ☒	N ☐	Primary sources of nutrients in urban runoff are fertilizers and eroded soils.
Nutrients - Nitrogen	E ☒	N ☐	Primary sources of nutrients in urban runoff are fertilizers and eroded soils.
Noxious Aquatic Plants	E ☐	N ☒	Noxious aquatic plants are typically from animals or vehicle transport that grow aggressively, multiply quickly without natural controls (native herbivores, soil chemistry, etc.), and adversely affect native habitats.
Sediment	E ☒	N ☐	Sediments are solid materials that are eroded from the land surface.
Metals	E ☒	N ☐	The primary source of metal pollution in stormwater is typically commercially available metals and metal products, as well as emissions from brake pad and tire tread wear associated with driving.
Oil and Grease	E ☒	N ☐	Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids.
Trash/Debris	E ☒	N ☐	Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste from human or animals
Pesticides / Herbicides	E ☒	N ☐	Pesticides and herbicides can be washed off urban landscapes during storm events.
Organic Compounds	E ☒	N ☐	Sources of organic compounds may include waste handling areas and vehicle or landscape maintenance areas.
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	

2.4 Water Quality Credits

A water quality credit program is applicable for certain types of development projects if it is not feasible to meet the requirements for on-site LID. Proponents for eligible projects, as described below, can apply for water quality credits that would reduce project obligations for selecting and sizing other treatment BMP or participating in other alternative compliance programs. Refer to Section 6.2 in the TGD for WQMP to determine if water quality credits are applicable for the project.

Form 2.4-1 Water Quality Credits

1 Project Types that Qualify for Water Quality Credits: *Select all that apply*

☐ Redevelopment projects that reduce the overall impervious footprint of the project site. [Credit = % impervious reduced]	Higher density development projects ☐ Vertical density [20%] ☐ 7 units/ acre [5%]	☐ Mixed use development, (combination of residential, commercial, industrial, office, institutional, or other land uses which incorporate design principles that demonstrate environmental benefits not realized through single use projects) [20%]	☐ Brownfield redevelopment (redevelop real property complicated by presence or potential of hazardous contaminants) [25%]
☐ Redevelopment projects in established historic district, historic preservation area, or similar significant core city center areas [10%]	☐ Transit-oriented developments (mixed use residential or commercial area designed to maximize access to public transportation) [20%]	☐ In-fill projects (conversion of empty lots & other underused spaces < 5 acres, substantially surrounded by urban land uses, into more beneficially used spaces, such as residential or commercial areas) [10%]	☐ Live-Work developments (variety of developments designed to support residential and vocational needs) [20%]

2 Total Credit % 0 *(Total all credit percentages up to a maximum allowable credit of 50 percent)*

Description of Water Quality Credit Eligibility (if applicable)	N/A

Section 3 Site and Watershed Description

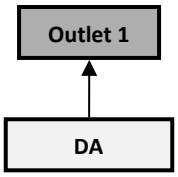
Describe the project site conditions that will facilitate the selection of BMP through an analysis of the physical conditions and limitations of the site and its receiving waters. Identify distinct drainage areas (DA) that collect flow from a portion of the site and describe how runoff from each DA (and sub-watershed DMAs) is conveyed to the site outlet(s). Refer to Section 3.2 in the TGD for WQMP. The form below is provided as an example. Then complete Forms 3.2 and 3.3 for each DA on the project site. ***If the project has more than one drainage area for stormwater management, then complete additional versions of these forms for each DA / outlet.***

Form 3-1 Site Location and Hydrologic Features

Site coordinates *take GPS measurement at approximate center of site*	Latitude 34° 10' 50.88 "N	Longitude -117° 13' 7.32"W	Thomas Bros Map page 577

1 San Bernardino County climatic region: ☒ Valley ☐ Mountain

2 Does the site have more than one drainage area (DA): Yes☐ No☒ *If no, proceed to Form 3-2. If yes, then use this form to show a conceptual schematic describing DMAs and hydrologic feature connecting DMAs to the site outlet(s). An example is provided below that can be modified for proposed project or a drawing clearly showing DMA and flow routing may be attached*



Conveyance	Briefly describe on-site drainage features to convey runoff that is not retained within a DMA
DA1 to Outlet 1	Runoff from the area DA 1 will be directed to a proposed underground infiltration/detention system on the west side of the project site. The design capture volume (DCV) will be treated through infiltration. See the WQMP Site map in Attachment A.

Form 3-2 Existing Hydrologic Characteristics for Drainage Area 1				
For Drainage Area 1's sub-watershed DMA, provide the following characteristics	DMA A	DMA B	DMA C	DMA D
1 DMA drainage area (ft^2)	124,788	N/A	N/A	N/A
2 Existing site impervious area (ft^2)	29,269	N/A	N/A	N/A
3 Antecedent moisture condition *For desert areas, use http://www.sbcounty.gov/dpw/floodcontrol/pdf/20100412_map.pdf*	AMC III	N/A	N/A	N/A
4 Hydrologic soil group *Refer to Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/*	A	N/A	N/A	N/A
5 Longest flowpath length (ft)	443'	N/A	N/A	N/A
6 Longest flowpath slope (ft/ft)	~0.012	N/A	N/A	N/A
7 Current land cover type(s) *Select from Fig C-3 of Hydrology Manual*	Barren	N/A	N/A	N/A
8 Pre-developed pervious area condition: *Based on the extent of wet season vegetated cover good >75%; Fair 50-75%; Poor <50% Attach photos of site to support rating*	Poor	N/A	N/A	N/A

Form 3-3 Watershed Description for Drainage Area

Receiving waters *Refer to Watershed Mapping Tool - http://permitrack.sbcounty.gov/wap/ See 'Drainage Facilities" link at this website*	City Creek Channel, Twin Creek Channel, Santa Ana Reach 5, Santa Ana Reach 4, Santa Ana Reach 3, Prado Control basin, Santa Ana Reach 2, Santa Ana Reach 1, and Pacific Ocean.
Applicable TMDLs *Refer to Local Implementation Plan*	Santa Ana River Reach 3: pathogens, nitrate.
303(d) listed impairments *Refer to Local Implementation Plan and Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/ and State Water Resources Control Board website – http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/index.shtml*	Santa Ana Reach 2: bacteria indicator. Santa Ana Reach 3: copper, lead, pathogens. Santa Ana Reach 4: pathogens. Prado Control Basin: nutrients, pathogens, TSS.
Environmentally Sensitive Areas (ESA) *Refer to Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/*	None
Unlined Downstream Water Bodies *Refer to Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/*	City Creek Twin Creek Channel Santa Ana River
Hydrologic Conditions of Concern	☐ Yes *Complete Hydrologic Conditions of Concern (HCOC) Assessment. Include Forms 4.2-2 through Form 4.2-5 and Hydromodification BMP Form 4.3-10 in submittal* ☒ No
Watershed–based BMP included in a RWQCB approved WAP	☐ Yes *Attach verification of regional BMP evaluation criteria in WAP* • *More Effective than On-site LID* • *Remaining Capacity for Project DCV* • *Upstream of any Water of the US* • *Operational at Project Completion* • *Long-Term Maintenance Plan* ☒ No

Section 4 Best Management Practices (BMP)

4.1 Source Control BMP

4.1.1 Pollution Prevention

Non-structural and structural source control BMP are required to be incorporated into all new development and significant redevelopment projects. Form 4.1-1 and 4.1-2 are used to describe specific source control BMPs used in the WQMP or to explain why a certain BMP is not applicable. Table 7-3 of the TGD for WQMP provides a list of applicable source control BMP for projects with specific types of potential pollutant sources or activities. The source control BMP in this table must be implemented for projects with these specific types of potential pollutant sources or activities.

The preparers of this WQMP have reviewed the source control BMP requirements for new development and significant redevelopment projects. The preparers have also reviewed the specific BMP required for project as specified in Forms 4.1-1 and 4.1-2. All applicable non-structural and structural source control BMP shall be implemented in the project.

Form 4.1-1 Non-Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, if not applicable, state reason
		Included	Not Applicable	
N1	Education of Property Owners, Tenants and Occupants on Stormwater BMPs	☒	☐	Property owners shall review and become familiar with the site specific WQMP. Educational materials for day to day operations are contained in Attachment C. Additional materials can be obtained from the local water pollution prevention program. Education of property owners begin with the review/preparation of the site specific WQMP and continues through the review of additional educational material as it applies to their project.
N2	Activity Restrictions	☒	☐	Activity restriction shall be stated in the owners lease terms prior to occupancy; • Fuelling areas, air/water supply areas, maintenance bays, vehicle washing areas, outdoor material storage areas, outdoor work areas, outdoor processing areas, wash water from food preparation areas within the project site will not be allowed on the project site. • Storage of hazardous materials will not be allowed on the project site. • All pesticide applications shall be performed by a licensed contractor certified by the California Department of Pesticide Regulation. • All dumpster lids shall be kept closed at all times. • Blowing, Sweeping or hosing of debris (leaf, litter, grass clippings, trash or debris) into the streets, underground stormdrain facilities or other storm water conveyance areas shall be strictly prohibited
N3	Landscape Management BMPs	☒	☐	A landscape architect will provide design plans for the on-site landscaping and irrigation system. The design shall incorporate the use of native and drought tolerant trees and shrubs throughout the project site.
N4	BMP Maintenance	☒	☐	Property owners shall maintain the designated on-site BMP areas, see Section 5 for self inspection and maintenance form
N5	Title 22 CCR Compliance (How development will comply)	☐	☒	Industrial purposed warehouse does not apply to Title 22 CCR (California Code of Regulations). CCR licensing in child care, residential and family child care.
N6	Local Water Quality Ordinances	☒	☐	Local Water Quality Ordinances will be addressed by implementation of this WQMP

Form 4.1-1 Non-Structural Source Control BMPs				
N7	Spill Contingency Plan	☒	☐	Industrial Warehouse buildings and truck dock areas have potential for spills and therefore each tenant shall be required to prepare a spill contingency plan and it shall be implemented in accordance with section 6.95 of the California Health and Safety Code. The spill contingency plan shall identify responsible persons in the event of a spill, an action item list identifying how the spill should be contained, cleaned up and who should be contacted in the event of a spill. Documentation of any spill event and cleanup process shall be kept on site in perpetuity.
N8	Underground Storage Tank Compliance	☐	☒	No underground storage tanks are proposed for this site
N9	Hazardous Materials Disclosure Compliance	☐	☒	No hazardous materials are planned to be stored on this site.

Form 4.1-1 Non-Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, if not applicable, state reason
		Included	Not Applicable	
N10	Uniform Fire Code Implementation	☒	☐	Underground fire protection service and fire sprinklers will be provided per the uniform fire code and the requirements of the County of San Bernardino Fire Department.
N11	Litter/Debris Control Program	☒	☐	Trash storage areas will be designed to have adjacent areas drain away from the trash storage areas. The trash storage areas shall be inspected and maintained on a monthly basis. Collection of trash from the trash storage areas shall occur on a regular basis to ensure that the trash receptacles are not overflowing. Documentation of such inspection/maintenance and trash collection shall be kept by the owner in perpetuity. See the WQMP site map in Attachment A for anticipated location of trash storage areas.
N12	Employee Training	☒	☐	The following shall be provided to the tentant by the onwer; an Employee Training/Education program shall be provided annually to help educate employees about storm water quality management and practices that help prevent storm water pollution. Documentation of such training/education program implementation shall be kept by the owner for a minimum of ten years. Sample education materials have been provided in Attachment C. Additional educational materials can be obtained from the County of San Bernardino storm water program.
N13	Housekeeping of Loading Docks	☒	☐	The project site will have truck docks. The truck docks shall be inspected on a weekly basis to help ensure that any trash and debris are collected prior to being washed into the underground storm drain system. All storm water runoff from the loading dock areas will be discharged into the underground infiltration system prior to conveyance to the public storm drain system. Documentation of such inspection/maintenance shall be kept by the owner in perpetuity.
N14	Catch Basin Inspection Program	☒	☐	The on-site catch basins shall be inspected on a quarterly basis. Inspection of the on-site catch basins shall consist of visual inspection of any sediment, trash or debris collected in the bottom of each catch basin. Any sediment, trash or debris found shall be removed from the catch basins and disposed of in a legal manner. Documentation of such inspection/maintenance shall be kept by the owner in perpetuity.

N15	Vacuum Sweeping of Private Streets and Parking Lots	☒	☐	The on-site parking lots, drive aisles, and loading dock areas shall be swept by sweeper truck on a monthly basis. Documentation of such sweeping shall be kept by the owner in perpetuity. Frequency of sweeping shall be adjusted as needed to maintain a clean site.
N16	Other Non-structural Measures for Public Agency Projects	☐	☒	None, not a public agency project.
N17	Comply with all other applicable NPDES permits	☒	☐	General construction permit "SWRCB Orders No. 2009-009-DWQ as amended by Order 2010-0014-DWQ"

Form 4.1-2 Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, If not applicable, state reason
		Included	Not Applicable	
S1	Provide storm drain system stencilling and signage (CASQA New Development BMP Handbook SD-13)	☒	☐	The on-site storm drain catch basins shall be stenciled with the phrase "Drains to River" or other approved language. The signage shall be inspected on an annual basis. Missing or faded signage shall be replaced. Documentation of such inspection/maintenance shall be kept by the owner in perpetuity.
S2	Design and construct outdoor material storage areas to reduce pollution introduction (CASQA New Development BMP Handbook SD-34)	☐	☒	No outdoor material storage areas are proposed for this site
S3	Design and construct trash and waste storage areas to reduce pollution introduction (CASQA New Development BMP Handbook SD-32)	☒	☐	Trash storage areas will be designed to have adjacent areas drain away from the trash storage areas. The trash storage areas shall be inspected and maintained on a weekly basis. Collection of trash from the trash storage areas shall occur on a regular basis to ensure that the trash receptacles are not overflowing. Documentation of such inspection/maintenance and trash collection shall be kept by the owner in perpetuity. See the WQMP site map in Attachment A for anticipated location of trash storage areas.
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control (Statewide Model Landscape Ordinance; CASQA New Development BMP Handbook SD-12)	☒	☐	The landscape architect will follow CASQA SD-12 for design and provide design plans for the on-site irrigation system. The irrigation system shall be inspected on a monthly basis to ensure proper operation. Any broken sprinkler heads shall be repaired immediately to ensure that the system continues to operate efficiently. Documentation of such inspection/maintenance shall be kept by the owner in perpetuity.
S5	Finish grade of landscaped areas at a minimum of 1-2 inches below top of curb, sidewalk, or pavement	☒	☐	The landscape architect will provide design plans for the on-site landscaping and irrigation system. The design shall incorporate that finish grade of landsapced areas at a minimum of 1-2 inches below top of curb, sidewalk, or pavement throughout the project site.
S6	Protect slopes and channels and provide energy dissipation (CASQA New Development BMP Handbook SD-10)	☒	☐	All on-site slopes shall be designed with a minimum slope of 3 horizontal to 1 vertical to help ensure that erosion of the side slopes does not occur. The slopes will be landscaped appropriately to also help ensure that erosion of the slopes does not occur. Slopes will be inspected and maintained bi-annually. Documentation of such inspection/maintenance shall be kept by the owner in perpetuity.

S7	Covered dock areas (CASQA New Development BMP Handbook SD-31)	☐	☒	Docks are not covered
S8	Covered maintenance bays with spill containment plans (CASQA New Development BMP Handbook SD-31)	☐	☒	No maintenance bays are planned for this site.
S9	Vehicle wash areas with spill containment plans (CASQA New Development BMP Handbook SD-33)	☐	☒	No vehicle wash area are planned for this site.
S10	Covered outdoor processing areas (CASQA New Development BMP Handbook SD-36)	☐	☒	No outdoor processing areas are planned for this site.

Form 4.1-2 Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, If not applicable, state reason
		Included	Not Applicable	
S11	Equipment wash areas with spill containment plans (CASQA New Development BMP Handbook SD-33)	☐	☒	No equipment wash areas are planned for this site.
S12	Fueling areas (CASQA New Development BMP Handbook SD-30)	☐	☒	No fueling areas are planned for this site.
S13	Hillside landscaping (CASQA New Development BMP Handbook SD-10)	☐	☒	No hillside landscaping are planned in this site.
S14	Wash water control for food preparation areas	☐	☒	Food preparation areas are not planned for this site.
S15	Community car wash racks (CASQA New Development BMP Handbook SD-33)	☐	☒	No community car wash rack are planned for this site.

4.1.2 Preventative LID Site Design Practices

Site design practices associated with new LID requirements in the MS4 Permit should be considered in the earliest phases of a project. Preventative site design practices can result in smaller DCV for LID BMP and hydromodification control BMP by reducing runoff generation. Describe site design and drainage plan including:

- A narrative of site design practices utilized or rationale for not using practices
- A narrative of how site plan incorporates preventive site design practices
- Include an attached Site Plan layout which shows how preventative site design practices are included in WQMP

Refer to Section 5.2 of the TGD for WQMP for more details.

Form 4.1-3 Preventative LID Site Design Practices Checklist

Site Design Practices *If yes, explain how preventative site design practice is addressed in project site plan. If no, other LID BMPs must be selected to meet targets*
Minimize impervious areas: Yes ☐ No ☒ Explanation: The developer has provided the landscape percentage required by the City. The underground infiltration/detention system is sized to meet the BMP requirements.
Maximize natural infiltration capacity: Yes ☒ No ☐ Explanation: All on-site runoff direct to an underground infiltration/detention system to promote groundwater recharge.
Preserve existing drainage patterns and time of concentration: Yes ☒ No ☐ Explanation: Existing runoff sheet flows westerly and drain onto to 3rd Street and discharges to 3rd Street Storm drain system. The proposed runoff will be collected and conveyed to an on-site underground infiltration/detention system, and the overflow will discharge to the 3rd Street Storm Drain System also; the detention system will increase the time of concentration.
Disconnect impervious areas: Yes ☐ No ☒ Explanation: The building roof drains along the west and east sides will be directly connected to the on-site storm drain system.
Protect existing vegetation and sensitive areas: Yes ☐ No ☒ Explanation: The site has no sensitive vegetation to protect. The planting of new vegetation will be occur throughout the site.
Re-vegetate disturbed areas: Yes ☒ No ☐ Explanation: All proposed landscape areas will be vegetated for stablization.
Minimize unnecessary compaction in stormwater retention/infiltration basin/trench areas: Yes ☒ No ☐ Explanation: The soils at the bottom of proposed infiltration/detention system will be leveled, but not compacted.
Utilize vegetated drainage swales in place of underground piping or imperviously lined swales: Yes ☐ No ☒ Explanation: Due to the site layout and designed grades, no vegetated drainage swales will be utilized in the proposed design.
Stake off areas that will be used for landscaping to minimize compaction during construction : Yes ☒ No ☐ Explanation: Landscaped areas will be staked off during grading operation throughout the project site.

4.2 Project Performance Criteria

The purpose of this section of the Project WQMP is to establish targets for post-development hydrology based on performance criteria specified in the MS4 Permit. These targets include runoff volume for water quality control (referred to as LID design capture volume), and runoff volume, time of concentration, and peak runoff for protection of any downstream waterbody segments with a HCOC. ***If the project has more than one outlet for stormwater runoff, then complete additional versions of these forms for each DA / outlet.***

Methods applied in the following forms include:

- For LID BMP Design Capture Volume (DCV), the San Bernardino County Stormwater Program requires use of the P_6 method (MS4 Permit Section XI.D.6a.ii) – Form 4.2-1
- For HCOC pre- and post-development hydrologic calculation, the San Bernardino County Stormwater Program requires the use of the Rational Method (San Bernardino County Hydrology Manual Section D). Forms 4.2-2 through Form 4.2-5 calculate hydrologic variables including runoff volume, time of concentration, and peak runoff from the project site pre- and post-development using the Hydrology Manual Rational Method approach. For projects greater than 640 acres (1.0 mi^2), the Rational Method and these forms should not be used. For such projects, the Unit Hydrograph Method (San Bernardino County Hydrology Manual Section E) shall be applied for hydrologic calculations for HCOC performance criteria.

Refer to Section 4 in the TGD for WQMP for detailed guidance and instructions.

Form 4.2-1 LID BMP Performance Criteria for Design Capture Volume (DA 1)

1 Project area DA 1 (ft^2): 124,788	**2** Imperviousness after applying preventative site design practices (Imp%): 0.82	**3** Runoff Coefficient (Rc): _0.62 *$R_c = 0.858(Imp\%)^{\wedge 3}-0.78(Imp\%)^{\wedge 2}+0.774(Imp\%)+0.04$*
4 Determine 1-hour rainfall depth for a 2-year return period $P_{2yr\text{-}1hr}$ (in): 0.515 *http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html*		
5 Compute P_6, Mean 6-hr Precipitation (inches): 0.76 *P_6 = Item 4 *C_1, where C_1 is a function of site climatic region specified in Form 3-1 Item 1 (Valley = 1.4807; Mountain = 1.909; Desert = 1.2371)*		
6 Drawdown Rate *Use 48 hours as the default condition. Selection and use of the 24 hour drawdown time condition is subject to approval by the local jurisdiction. The necessary BMP footprint is a function of drawdown time. While shorter drawdown times reduce the performance criteria for LID BMP design capture volume, the depth of water that can be stored is also reduced.*		24-hrs ☐ 48-hrs ☒
7 Compute design capture volume, DCV (ft^3): 9,619 *DCV = 1/12 * [Item 1* Item 3 *Item 5 * C_2], where C_2 is a function of drawdown rate (24-hr = 1.582; 48-hr = 1.963)* *Compute separate DCV for each outlet from the project site per schematic drawn in Form 3-1 Item 2*		

NOAA Atlas 14, Volume 6, Version 2
Location name: Highland, California, USA*
Latitude: 34.1081°, Longitude: -117.2187°
Elevation: 1162.82 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 Trypaluk, 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	**0.103** (0.086-0.125)	**0.135** (0.112-0.164)	**0.178** (0.148-0.217)	**0.215** (0.176-0.264)	**0.266** (0.211-0.338)	**0.306** (0.238-0.398)	**0.349** (0.264-0.465)	**0.394** (0.290-0.541)	**0.458** (0.323-0.656)	**0.510** (0.348-0.756)
10-min	**0.147** (0.123-0.179)	**0.193** (0.161-0.235)	**0.256** (0.212-0.312)	**0.308** (0.253-0.378)	**0.381** (0.302-0.484)	**0.439** (0.341-0.571)	**0.500** (0.379-0.667)	**0.565** (0.416-0.775)	**0.657** (0.464-0.940)	**0.731** (0.498-1.08)
15-min	**0.178** (0.148-0.217)	**0.234** (0.194-0.285)	**0.309** (0.256-0.377)	**0.372** (0.306-0.457)	**0.460** (0.366-0.586)	**0.531** (0.413-0.690)	**0.605** (0.458-0.806)	**0.683** (0.503-0.938)	**0.794** (0.561-1.14)	**0.884** (0.602-1.31)
30-min	**0.268** (0.223-0.326)	**0.352** (0.292-0.428)	**0.465** (0.385-0.567)	**0.560** (0.460-0.688)	**0.693** (0.550-0.881)	**0.799** (0.621-1.04)	**0.910** (0.690-1.21)	**1.03** (0.757-1.41)	**1.20** (0.843-1.71)	**1.33** (0.906-1.97)
60-min	**0.393** (0.327-0.477)	**0.515** (0.428-0.627)	**0.681** (0.564-0.830)	**0.819** (0.673-1.01)	**1.01** (0.805-1.29)	**1.17** (0.909-1.52)	**1.33** (1.01-1.78)	**1.51** (1.11-2.07)	**1.75** (1.24-2.50)	**1.95** (1.33-2.89)
2-hr	**0.564** (0.469-0.684)	**0.725** (0.602-0.882)	**0.941** (0.779-1.15)	**1.12** (0.919-1.38)	**1.37** (1.08-1.74)	**1.56** (1.21-2.03)	**1.76** (1.33-2.35)	**1.97** (1.45-2.70)	**2.26** (1.59-3.23)	**2.49** (1.69-3.69)
3-hr	**0.692** (0.575-0.840)	**0.884** (0.734-1.08)	**1.14** (0.943-1.39)	**1.35** (1.11-1.66)	**1.64** (1.30-2.08)	**1.86** (1.45-2.42)	**2.09** (1.59-2.79)	**2.33** (1.72-3.20)	**2.66** (1.88-3.81)	**2.92** (1.99-4.33)
6-hr	**0.966** (0.803-1.17)	**1.23** (1.02-1.49)	**1.58** (1.31-1.92)	**1.86** (1.53-2.28)	**2.24** (1.78-2.86)	**2.54** (1.98-3.31)	**2.85** (2.16-3.79)	**3.16** (2.33-4.33)	**3.59** (2.53-5.13)	**3.92** (2.67-5.81)
12-hr	**1.28** (1.06-1.55)	**1.64** (1.37-2.00)	**2.12** (1.75-2.58)	**2.50** (2.06-3.08)	**3.03** (2.40-3.85)	**3.43** (2.66-4.45)	**3.83** (2.90-5.11)	**4.25** (3.13-5.83)	**4.81** (3.39-6.88)	**5.24** (3.57-7.77)
24-hr	**1.73** (1.53-1.99)	**2.25** (1.99-2.60)	**2.93** (2.59-3.39)	**3.49** (3.05-4.07)	**4.24** (3.59-5.10)	**4.81** (3.99-5.91)	**5.38** (4.36-6.78)	**5.97** (4.71-7.73)	**6.77** (5.12-9.13)	**7.38** (5.40-10.3)
2-day	**2.12** (1.88-2.45)	**2.81** (2.48-3.24)	**3.70** (3.26-4.28)	**4.43** (3.88-5.17)	**5.42** (4.60-6.54)	**6.19** (5.14-7.61)	**6.97** (5.65-8.78)	**7.77** (6.13-10.1)	**8.86** (6.71-12.0)	**9.71** (7.10-13.5)
3-day	**2.30** (2.04-2.66)	**3.07** (2.72-3.55)	**4.09** (3.61-4.74)	**4.93** (4.32-5.75)	**6.09** (5.16-7.34)	**6.99** (5.80-8.59)	**7.91** (6.41-9.96)	**8.86** (6.99-11.5)	**10.2** (7.70-13.7)	**11.2** (8.19-15.6)
4-day	**2.47** (2.19-2.85)	**3.33** (2.94-3.84)	**4.46** (3.94-5.16)	**5.40** (4.73-6.30)	**6.70** (5.68-8.07)	**7.72** (6.40-9.49)	**8.76** (7.10-11.0)	**9.86** (7.77-12.8)	**11.4** (8.60-15.3)	**12.5** (9.18-17.5)
7-day	**2.83** (2.50-3.26)	**3.86** (3.41-4.45)	**5.24** (4.62-6.06)	**6.39** (5.59-7.45)	**7.99** (6.76-9.62)	**9.24** (7.67-11.4)	**10.5** (8.54-13.3)	**11.9** (9.38-15.4)	**13.8** (10.4-18.6)	**15.3** (11.2-21.3)
10-day	**3.06** (2.71-3.52)	**4.21** (3.73-4.86)	**5.77** (5.09-6.67)	**7.06** (6.18-8.24)	**8.87** (7.51-10.7)	**10.3** (8.54-12.7)	**11.8** (9.53-14.8)	**13.3** (10.5-17.2)	**15.5** (11.7-20.9)	**17.2** (12.6-24.0)
20-day	**3.76** (3.33-4.34)	**5.25** (4.64-6.05)	**7.26** (6.40-8.40)	**8.95** (7.83-10.4)	**11.3** (9.58-13.6)	**13.2** (10.9-16.2)	**15.1** (12.3-19.1)	**17.2** (13.6-22.3)	**20.1** (15.2-27.1)	**22.4** (16.4-31.2)
30-day	**4.43** (3.93-5.11)	**6.18** (5.47-7.13)	**8.56** (7.55-9.90)	**10.6** (9.24-12.3)	**13.4** (11.3-16.1)	**15.6** (13.0-19.2)	**17.9** (14.5-22.6)	**20.4** (16.1-26.4)	**23.9** (18.1-32.2)	**26.6** (19.5-37.2)
45-day	**5.33** (4.72-6.14)	**7.36** (6.51-8.49)	**10.1** (8.94-11.7)	**12.5** (10.9-14.6)	**15.8** (13.4-19.0)	**18.4** (15.3-22.7)	**21.2** (17.2-26.7)	**24.1** (19.0-31.2)	**28.2** (21.4-38.1)	**31.5** (23.1-44.0)
60-day	**6.26** (5.54-7.21)	**8.55** (7.56-9.86)	**11.7** (10.3-13.5)	**14.3** (12.5-16.7)	**18.1** (15.3-21.7)	**21.0** (17.5-25.9)	**24.2** (19.6-30.4)	**27.5** (21.7-35.6)	**32.2** (24.3-43.4)	**35.9** (26.3-50.1)

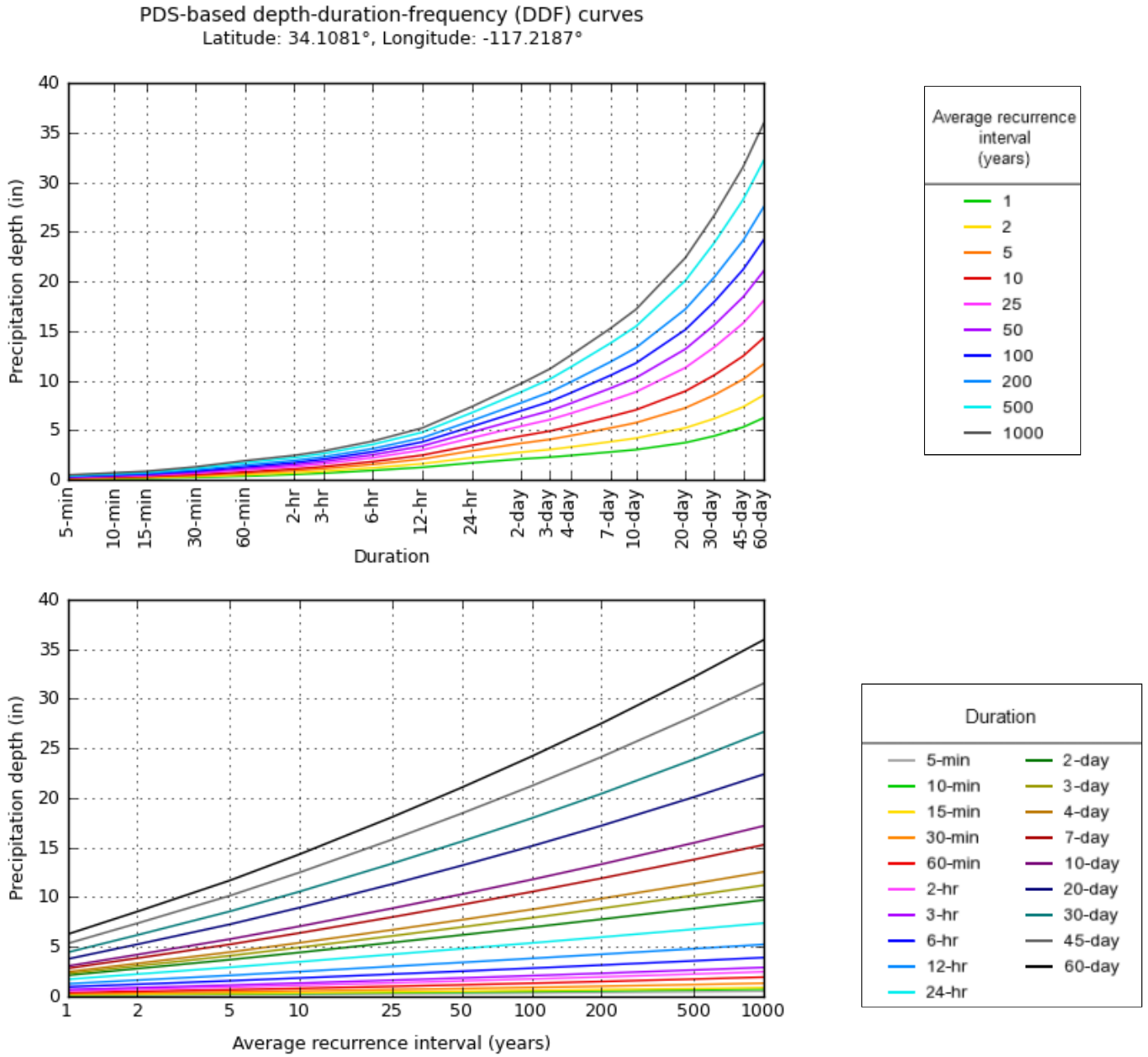
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

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



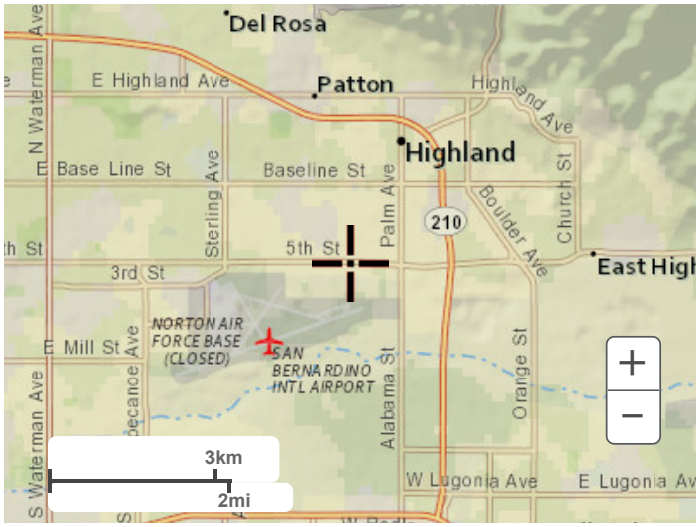
NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Wed Feb 8 19:46:46 2023

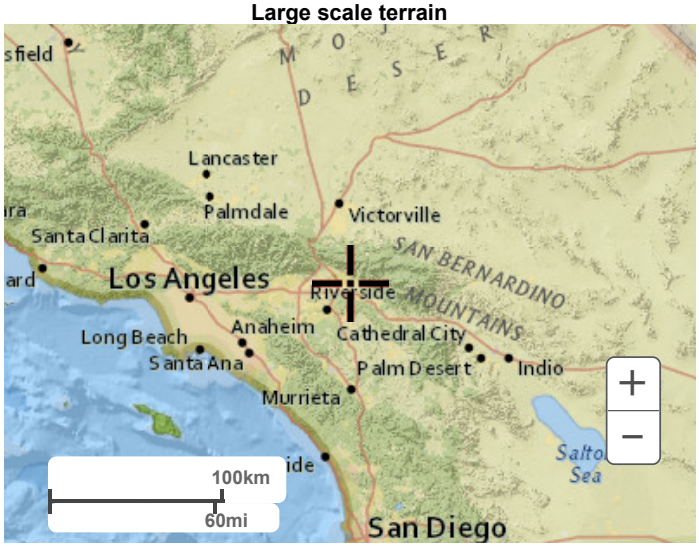
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Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

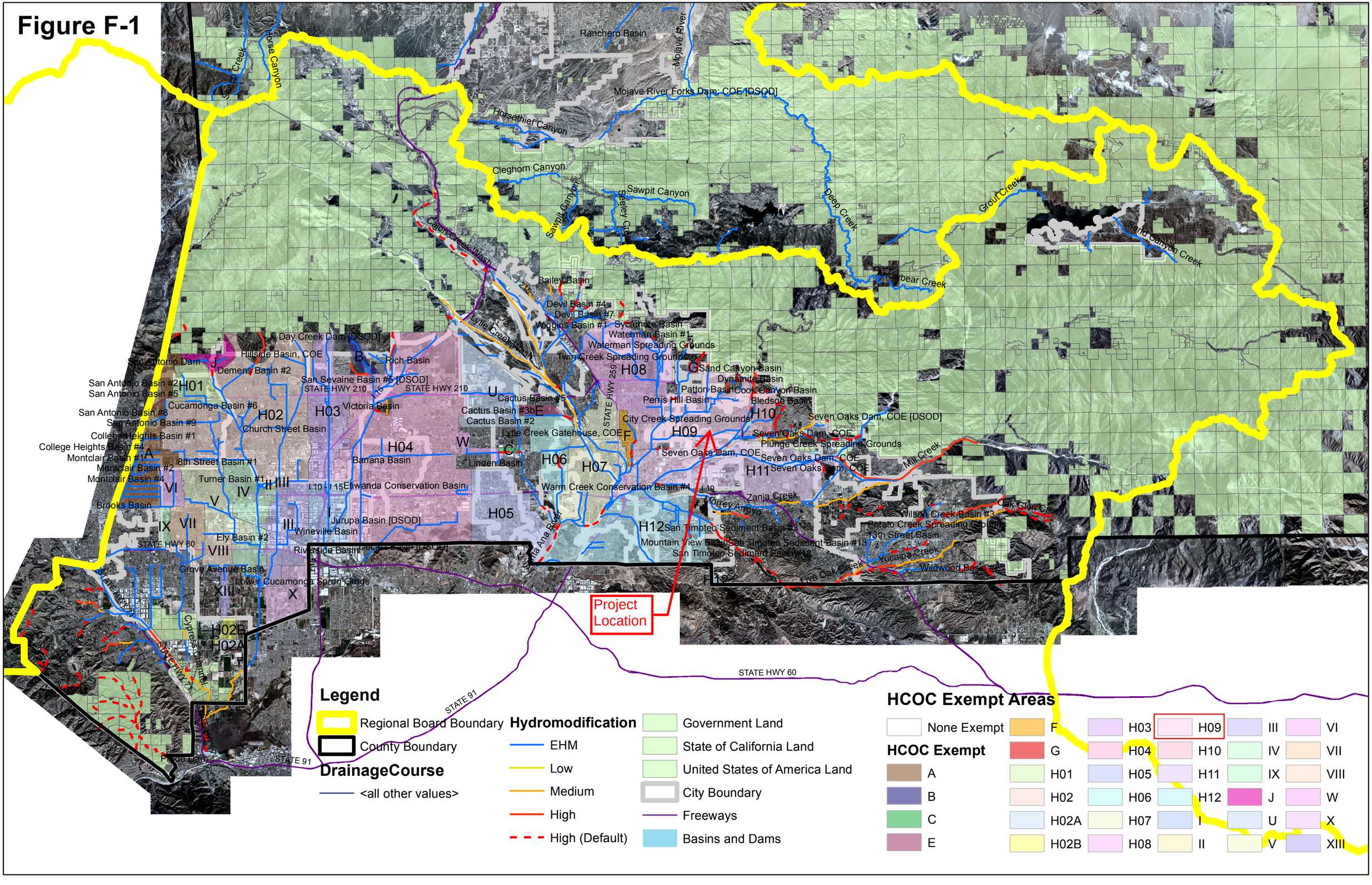


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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

Figure F-1


Ranchero Basin
Mojave River
Mojave River Forks Dam: COE [DSOD]
Horsethief Canyon
Cleghorn Canyon
Sawpit Canyon
Deep Creek
Grout Creek
Bear Creek
Sand Canyon Creek
Cajon Creek Wash
Lytle Creek Wash
Bailey Basin
Devil Basin #4
Devil Basin #7
Wiggins Basin #1
Sycamore Basin
Waterman Basin #1
Waterman Spreading Grounds
Twin Creek Spreading Grounds
Day Creek Dam [DSOD]
Hillside Basin, COE
Rich Basin
Demens Basin #2
San Antonio Dam
San Antonio Basin #2
San Antonio Basin #5
San Antonio Basin #8
San Antonio Basin #9
College Heights Basin #1
College Heights Basin #4
Montclair Basin #1
Montclair Basin #2
Montclair Basin #4
San Sevaine Basin #5 [DSOD]
Cucamonga Basin #6
Victoria Basin
Church Street Basin
8th Street Basin #1
Turner Basin #1
Banana Basin
Etiwanda Conservation Basin
Brooks Basin
Jurupa Basin [DSOD]
Wineville Basin
Ely Basin #2
Riverside Basin
Grove Avenue Basin
Lower Cucamonga Spdg Grnds
Cactus Basin #5
Cactus Basin #3b
Cactus Basin #2
Lytle Creek Gatehouse, COE
Linden Basin
Warm Creek Conservation Basin #4
Santa Ana River
Dynamite Basin
Patton Basin
Cook Canyon Basin
Perris Hill Basin
Bledsoe Basin
City Creek Spreading Grounds
Seven Oaks Dam, COE [DSOD]
Seven Oaks Dam, COE
Plunge Creek Spreading Grounds
Mill Creek
Zanja Creek
Morey Arroyo
Wilson Creek Basin #3
Potato Creek Spreading Grounds
13th Street Basin
Yucaipa Creek
Wildwood Basin #2
Oak Glen C
San Timoteo Sediment Basin #3
San Timoteo Sediment Basin #13
San Timoteo Sediment Basin #14
Mountain View Basin
Mc Dak Creek
Project Location
STATE HWY 60
STATE HWY 210
STATE HWY 259
STATE HWY 71
STATE 91
I 10
I 15
I 215
Cypress Channel
Prado Dam
H01
H02
H02A
H02B
H03
H04
H05
H06
H07
H08
H09
H10
H11
H12
A
B
C
E
F
G
I
J
U
W
II
III
IV
V
VI
VII
VIII
IX
X
XIII
Legend
Regional Board Boundary
County Boundary
DrainageCourse
<all other values>
Hydromodification
EHM
Low
Medium
High
High (Default)
Government Land
State of California Land
United States of America Land
City Boundary
Freeways
Basins and Dams
HCOC Exempt Areas
None Exempt
HCOC Exempt
A
B
C
E
F
G
H01
H02
H02A
H02B
H03
H04
H05
H06
H07
H08
H09
H10
H11
H12
I
II
III
IV
IX
J
U
V
VI
VII
VIII
W
X
XIII

Hydromodification

A.1 Hydrologic Conditions of Concern (HCOC) Analysis

HCOC Exemption:

1. **Sump Condition:** All downstream conveyance channel to an adequate sump (for example, Prado Dam, Santa Ana River, or other Lake, Reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

2. **Pre = Post**: The runoff flow rate, volume and velocity for the post-development condition of the Priority Development Project do not exceed the pre-development (i.e, naturally occurring condition for the 2-year, 24-hour rainfall event utilizing latest San Bernardino County Hydrology Manual.

    a. Submit a substantiated hydrologic analysis to justify your request.

3. **Diversion to Storage Area**: The drainage areas that divert to water storage areas which are considered as control/release point and utilized for water conservation.

    a. See Appendix F for the HCOC Exemption Map and the on-line Watershed Geodatabase (http://sbcounty.permitrack.com/wap) for reference.

4. **Less than One Acre**: The Priority Development Project disturbs less than one acre. The Co-permittee has the discretion to require a Project Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The project disturbs less than one acre and is not part of a common plan of development.

5. **Built Out Area**: The contributing watershed area to which the project discharges has a developed area percentage greater than 90 percent.

    a. See Appendix F for the HCOC Exemption Map and the on-line Watershed Geodatabase (http://sbcounty.permitrack.com/wap) for reference.

Summary of HCOC Exempted Area

	HCOC Exemption reasoning				
	1	2	3	4	5
Area					
A			X		X
B			X		
C					X
E			X		
F					X
G			X		X
H01	X		X		
H02	X		X		
H02A	X		X		
H02B			X		
H03			X		
H04	X		X		
H05	X				
H06			X		
H07	X				
H08	X		X		
H09	X				
H10	X		X		
H11	X		X		
H12	X				
J			X		
U			X		
W			X		
I			X		
II			X		
III					X
IV			X		X
V			X*		
VI					X
VII					X
VIII			X		
IX					X
X			X		
XIII			X		

*Detention/Conservation Basin

Form 4.2-2 Summary of HCOC Assessment (DA 1)

Does project have the potential to cause or contribute to an HCOC in a downstream channel: Yes ☐ No ☒

Go to: *http://permitrack.sbcounty.gov/wap/*

If "Yes", then complete HCOC assessment of site hydrology for 2yr storm event using Forms 4.2-3 through 4.2-5 and insert results below

(Forms 4.2-3 through 4.2-5 may be replaced by computer software analysis based on the San Bernardino County Hydrology Manual)

If "No," then proceed to Section 4.3 Project Conformance Analysis

Condition	Runoff Volume (ft^3)	Time of Concentration (min)	Peak Runoff (cfs)
Pre-developed	**1** N/A *Form 4.2-3 Item 12*	**2** N/A *Form 4.2-4 Item 13*	**3** N/A *Form 4.2-5 Item 10*
Post-developed	**4** N/A *Form 4.2-3 Item 13*	**5** N/A *Form 4.2-4 Item 14*	**6** N/A *Form 4.2-5 Item 14*
Difference	**7** N/A *Item 4 – Item 1*	**8** N/A *Item 2 – Item 5*	**9** N/A *Item 6 – Item 3*
Difference (as % of pre-developed)	**10** N/A *%* *Item 7 / Item 1*	**11** N/A *%* *Item 8 / Item 2*	**12** N/A *%* *Item 9 / Item 3*

Form 4.2-3 HCOC Assessment for Runoff Volume (DA 1) (N/A)

Weighted Curve Number Determination for: Pre-developed DA	DMA A	DMA B	DMA C	DMA D	DMA E	DMA F	DMA G	DMA H
1a Land Cover type	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2a Hydrologic Soil Group (HSG)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3a DMA Area, ft^2 *sum of areas of DMA should equal area of DA*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4a Curve Number (CN) *use Items 1 and 2 to select the appropriate CN from Appendix C-2 of the TGD for WQMP*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weighted Curve Number Determination for: Post-developed DA	DMA A	DMA B	DMA C	DMA D	DMA E	DMA F	DMA G	DMA H
1b Land Cover type	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2b Hydrologic Soil Group (HSG)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3b DMA Area, ft^2 *sum of areas of DMA should equal area of DA*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4b Curve Number (CN) *use Items 5 and 6 to select the appropriate CN from Appendix C-2 of the TGD for WQMP*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

5 Pre-Developed area-weighted CN: N/A	**7** Pre-developed soil storage capacity, S (in): N/A *S = (1000 / Item 5) - 10*	**9** Initial abstraction, I_a (in): N/A *I_a = 0.2 * Item 7*
6 Post-Developed area-weighted CN: N/A	**8** Post-developed soil storage capacity, S (in): N/A *S = (1000 / Item 6) - 10*	**10** Initial abstraction, I_a (in): N/A *I_a = 0.2 * Item 8*

11 Precipitation for 2 yr, 24 hr storm (in): N/A
Go to: http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html

12 Pre-developed Volume (ft^3): N/A
*V_{pre} =(1 / 12) * (Item sum of Item 3) * [(Item 11 – Item 9)^2 / ((Item 11 – Item 9 + Item 7)*

13 Post-developed Volume (ft^3): N/A
*V_{pre} =(1 / 12) * (Item sum of Item 3) * [(Item 11 – Item 10)^2 / ((Item 11 – Item 10 + Item 8)*

14 Volume Reduction needed to meet HCOC Requirement, (ft^3): N/A
*V_{HCOC} = (Item 13 * 0.95) – Item 12*

Form 4.2-4 HCOC Assessment for Time of Concentration (DA 1) (N/A)

Compute time of concentration for pre and post developed conditions for each DA *(For projects using the Hydrology Manual complete the form below)*

Variables	Pre-developed DA1 *Use additional forms if there are more than 4 DMA*				Post-developed DA1 *Use additional forms if there are more than 4 DMA*			
	DMA A	DMA B	DMA C	DMA D	DMA A	DMA B	DMA C	DMA D
1 Length of flowpath (ft) *Use Form 3-2 Item 5 for pre-developed condition*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2 Change in elevation (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3 Slope (ft/ft), *S_o = Item 2 / Item 1*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4 Land cover	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5 Initial DMA Time of Concentration (min) *Appendix C-1 of the TGD for WQMP*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6 Length of conveyance from DMA outlet to project site outlet (ft) *May be zero if DMA outlet is at project site outlet*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7 Cross-sectional area of channel (ft^2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8 Wetted perimeter of channel (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9 Manning's roughness of channel (n)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10 Channel flow velocity (ft/sec) *V_{fps} = (1.49 / Item 9) * (Item 7/Item 8)^0.67 * (Item 3)^0.5*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11 Travel time to outlet (min) *T_t = Item 6 / (Item 10 * 60)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12 Total time of concentration (min) *T_c = Item 5 + Item 11*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

13 Pre-developed time of concentration (min): N/A *Minimum of Item 12 pre-developed DMA*

14 Post-developed time of concentration (min): N/A *Minimum of Item 12 post-developed DMA*

15 Additional time of concentration needed to meet HCOC requirement (min): N/A *$T_{C\text{-}HCOC}$ = (Item 13 * 0.95) – Item 14*

Form 4.2-5 HCOC Assessment for Peak Runoff (DA 1) (N/A)

Compute peak runoff for pre- and post-developed conditions

Variables		Pre-developed DA to Project Outlet (*Use additional forms if more than 3 DMA)*			Post-developed DA to Project Outlet (*Use additional forms if more than 3 DMA)*		
		DMA A	DMA B	DMA C	DMA A	DMA B	DMA C
1 Rainfall Intensity for storm duration equal to time of concentration *I_{peak} = 10^(LOG Form 4.2-1 Item 4 - 0.6 LOG Form 4.2-4 Item 5 /60)*		N/A	N/A	N/A	N/A	N/A	N/A
2 Drainage Area of each DMA (Acres) *For DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include drainage from DMA C)*		N/A	N/A	N/A	N/A	N/A	N/A
3 Ratio of pervious area to total area *For DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include drainage from DMA C)*		N/A	N/A	N/A	N/A	N/A	N/A
4 Pervious area infiltration rate (in/hr) *Use pervious area CN and antecedent moisture condition with Appendix C-3 of the TGD for WQMP*		N/A	N/A	N/A	N/A	N/A	N/A
5 Maximum loss rate (in/hr) *F_m = Item 3 * Item 4* *Use area-weighted F_m from DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include drainage from DMA C)*		N/A	N/A	N/A	N/A	N/A	N/A
6 Peak Flow from DMA (cfs) *Q_p =Item 2 * 0.9 * (Item 1 - Item 5)*		N/A	N/A	N/A	N/A	N/A	N/A
7 Time of concentration adjustment factor for other DMA to site discharge point *Form 4.2-4 Item 12 DMA / Other DMA upstream of site discharge point (If ratio is greater than 1.0, then use maximum value of 1.0)*	DMA A	*n/a*	N/A	N/A	*n/a*	N/A	N/A
	DMA B	N/A	*n/a*	N/A	N/A	*n/a*	N/A
	DMA C	N/A	N/A	*n/a*	N/A	N/A	*n/a*

8 Pre-developed Q_p at T_c for DMA A: N/A *Q_p = Item 6_{DMAA} + [Item 6_{DMAB} * (Item 1_{DMAA} - Item 5_{DMAB})/(Item 1_{DMAB} - Item 5_{DMAB})* Item $7_{DMAA/2}$] + [Item 6_{DMAC} * (Item 1_{DMAA} - Item 5_{DMAC})/(Item 1_{DMAC} - Item 5_{DMAC})* Item $7_{DMAA/3}$]*	**9** Pre-developed Q_p at T_c for DMA B: N/A *Q_p = Item 6_{DMAB} + [Item 6_{DMAA} * (Item 1_{DMAB} - Item 5_{DMAA})/(Item 1_{DMAA} - Item 5_{DMAA})* Item $7_{DMAB/1}$] + [Item 6_{DMAC} * (Item 1_{DMAB} - Item 5_{DMAC})/(Item 1_{DMAC} - Item 5_{DMAC})* Item $7_{DMAB/3}$]*	**10** Pre-developed Q_p at T_c for DMA C: N/A *Q_p = Item 6_{DMAC} + [Item 6_{DMAA} * (Item 1_{DMAC} - Item 5_{DMAA})/(Item 1_{DMAA} - Item 5_{DMAA})* Item $7_{DMAC/1}$] + [Item 6_{DMAB} * (Item 1_{DMAC} - Item 5_{DMAB})/(Item 1_{DMAB} - Item 5_{DMAB})* Item $7_{DMAC/2}$]*

10 Peak runoff from pre-developed condition confluence analysis (cfs): N/A *Maximum of Item 8, 9, and 10 (including additional forms as needed)*

11 Post-developed Q_p at T_c for DMA A: N/A *Same as Item 8 for post-developed values*	**12** Post-developed Q_p at T_c for DMA B: N/A *Same as Item 9 for post-developed values*	**13** Post-developed Q_p at T_c for DMA C: N/A *Same as Item 10 for post-developed values*

14 Peak runoff from post-developed condition confluence analysis (cfs): N/A *Maximum of Item 11, 12, and 13 (including additional forms as needed)*

15 Peak runoff reduction needed to meet HCOC Requirement (cfs): N/A *$Q_{p\text{-}HCOC}$ = (Item 14 * 0.95) – Item 10*

4.3 Project Conformance Analysis

Complete the following forms for each project site DA to document that the proposed LID BMPs conform to the project DCV developed to meet performance criteria specified in the MS4 Permit (WQMP Template Section 4.2). For the LID DCV, the forms are ordered according to hierarchy of BMP selection as required by the MS4 Permit (see Section 5.3.1 in the TGD for WQMP). The forms compute the following for on-site LID BMP:

- Site Design and Hydrologic Source Controls (Form 4.3-2)
- Retention and Infiltration (Form 4.3-3)
- Harvested and Use (Form 4.3-4) or
- Biotreatment (Form 4.3-5).

At the end of each form, additional fields facilitate the determination of the extent of mitigation provided by the specific BMP category, allowing for use of the next category of BMP in the hierarchy, if necessary.

The first step in the analysis, using Section 5.3.2.1 of the TGD for WQMP, is to complete Forms 4.3-1 and 4.3-3) to determine if retention and infiltration BMPs are infeasible for the project. For each feasibility criterion in Form 4.3-1, if the answer is "Yes," provide all study findings that includes relevant calculations, maps, data sources, etc. used to make the determination of infeasibility.

Next, complete Forms 4.3-2 and 4.3-4 to determine the feasibility of applicable HSC and harvest and use BMPs, and, if their implementation is feasible, the extent of mitigation of the DCV.

If no site constraints exist that would limit the type of BMP to be implemented in a DA, evaluate the use of combinations of LID BMPs, including all applicable HSC BMPs to maximize on-site retention of the DCV. If no combination of BMP can mitigate the entire DCV, implement the single BMP type, or combination of BMP types, that maximizes on-site retention of the DCV within the minimum effective area.

If the combination of LID HSC, retention and infiltration, and harvest and use BMPs are unable to mitigate the entire DCV, then biotreatment BMPs may be implemented by the project proponent. If biotreatment BMPs are used, then they must be sized to provide sufficient capacity for effective treatment of the remainder of the volume-based performance criteria that cannot be achieved with LID BMPs (TGD for WQMP Section 5.4.4.2). **Under no circumstances shall any portion of the DCV be released from the site without effective mitigation and/or treatment**.

Form 4.3-1 Infiltration BMP Feasibility (DA 1)

Feasibility Criterion – Complete evaluation for each DA on the Project Site

[1] Would infiltration BMP pose significant risk for groundwater related concerns? Yes ☐ No ☒
Refer to Section 5.3.2.1 of the TGD for WQMP

If Yes, Provide basis: (attach)

[2] Would installation of infiltration BMP significantly increase the risk of geotechnical hazards? Yes ☐ No ☒
(Yes, if the answer to any of the following questions is yes, as established by a geotechnical expert):

- The location is less than 50 feet away from slopes steeper than 15 percent
- The location is less than eight feet from building foundations or an alternative setback.
- A study certified by a geotechnical professional or an available watershed study determines that stormwater infiltration would result in significantly increased risks of geotechnical hazards.

If Yes, Provide basis: (attach)

[3] Would infiltration of runoff on a Project site violate downstream water rights? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[4] Is proposed infiltration facility located on hydrologic soil group (HSG) D soils or does the site geotechnical investigation indicate presence of soil characteristics, which support categorization as D soils? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[5] Is the design infiltration rate, after accounting for safety factor of 2.0, below proposed facility less than 0.3 in/hr (accounting for soil amendments)? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[6] Would on-site infiltration or reduction of runoff over pre-developed conditions be partially or fully inconsistent with watershed management strategies as defined in the WAP, or impair beneficial uses? Yes ☐ No ☒
See Section 3.5 of the TGD for WQMP and WAP

If Yes, Provide basis: (attach)

[7] Any answer from Item 1 through Item 3 is "Yes": Yes ☐ No ☒
If yes, infiltration of any volume is not feasible onsite. Proceed to Form 4.3-4, Harvest and Use BMP. If no, then proceed to Item 8 below.

[8] Any answer from Item 4 through Item 6 is "Yes": Yes ☐ No ☒
If yes, infiltration is permissible but is not required to be considered. Proceed to Form 4.3-2, Hydrologic Source Control BMP. If no, then proceed to Item 9, below.

[9] All answers to Item 1 through Item 6 are "No":
Infiltration of the full DCV is potentially feasible, LID infiltration BMP must be designed to infiltrate the full DCV to the MEP. Proceed to Form 4.3-2, Hydrologic Source Control BMP.

4.3.1 Site Design Hydrologic Source Control BMP

Section XI.E. of the Permit emphasizes the use of LID preventative measures; and the use of LID HSC BMPs reduces the portion of the DCV that must be addressed in downstream BMPs. Therefore, all applicable HSC shall be provided except where they are mutually exclusive with each other, or with other BMPs. Mutual exclusivity may result from overlapping BMP footprints such that either would be potentially feasible by itself, but both could not be implemented. Please note that while there are no numeric standards regarding the use of HSC, if a project cannot feasibly meet BMP sizing requirements or cannot fully address HCOCs, feasibility of all applicable HSC must be part of demonstrating that the BMP system has been designed to retain the maximum feasible portion of the DCV. Complete Form 4.3-2 to identify and calculate estimated retention volume from implementing site design HSC BMP. Refer to Section 5.4.1 in the TGD for more detailed guidance.

Form 4.3-2 Site Design Hydrologic Source Control BMPs (DA 1)

1 Implementation of Impervious Area Dispersion BMP (i.e. routing runoff from impervious to pervious areas), excluding impervious areas planned for routing to on-lot infiltration BMP: Yes ☐ No ☒ *If yes, complete Items 2-5; If no, proceed to Item 6*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
2 Total impervious area draining to pervious area (ft^2)			
3 Ratio of pervious area receiving runoff to impervious area			
4 Retention volume achieved from impervious area dispersion (ft^3) *V = Item2 * Item 3 * (0.5/12), assuming retention of 0.5 inches of runoff*			
5 Sum of retention volume achieved from impervious area dispersion (ft^3): 0 *$V_{retention}$ =Sum of Item 4 for all BMPs*			
6 Implementation of Localized On-lot Infiltration BMPs (e.g. on-lot rain gardens): Yes ☐ No ☒ *If yes, complete Items 7-13 for aggregate of all on-lot infiltration BMP in each DA; If no, proceed to Item 14*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
7 Ponding surface area (ft^2)			
8 Ponding depth (ft)			
9 Surface area of amended soil/gravel (ft^2)			
10 Average depth of amended soil/gravel (ft)			
11 Average porosity of amended soil/gravel			
12 Retention volume achieved from on-lot infiltration (ft^3) *$V_{retention}$ = (Item 7 *Item 8) + (Item 9 * Item 10 * Item 11)*			
13 Runoff volume retention from on-lot infiltration (ft^3): 0 *$V_{retention}$ =Sum of Item 12 for all BMPs*			

Form 4.3-2 cont. Site Design Hydrologic Source Control BMPs (DA 1)

14 Implementation of evapotranspiration BMP (green, brown, or blue roofs): Yes ☐ No ☒ *If yes, complete Items 15-20. If no, proceed to Item 21*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
15 Rooftop area planned for ET BMP (ft^2)			
16 Average wet season ET demand (in/day) *Use local values, typical ~ 0.1*			
17 Daily ET demand (ft^3/day) *Item 15 * (Item 16 / 12)*			
18 Drawdown time (hrs) *Copy Item 6 in Form 4.2-1*			
19 Retention Volume (ft^3) $V_{retention}$ *= Item 17 * (Item 18 / 24)*			
20 Runoff volume retention from evapotranspiration BMPs (ft^3): 0 $V_{retention}$ *=Sum of Item 19 for all BMPs*			
21 Implementation of Street Trees: Yes ☐ No ☒ *If yes, complete Items 22-25. If no, proceed to Item 26*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
22 Number of Street Trees			
23 Average canopy cover over impervious area (ft^2)			
24 Runoff volume retention from street trees (ft^3) $V_{retention}$ *= Item 22 * Item 23 * (0.05/12) assume runoff retention of 0.05 inches*			
25 Runoff volume retention from street tree BMPs (ft^3): 0 $V_{retention}$ *= Sum of Item 24 for all BMPs*			
26 Implementation of residential rain barrel/cisterns: Yes ☐ No ☒ *If yes, complete Items 27-29; If no, proceed to Item 30*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
27 Number of rain barrels/cisterns			
28 Runoff volume retention from rain barrels/cisterns (ft^3) $V_{retention}$ *= Item 27 * 3*			
29 Runoff volume retention from residential rain barrels/Cisterns (ft3): 0 $V_{retention}$ *=Sum of Item 28 for all BMPs*			
30 Total Retention Volume from Site Design Hydrologic Source Control BMPs: 0 *Sum of Items 5, 13, 20, 25 and 29*			

4.3.2 Infiltration BMPs

Use Form 4.3-3 to compute on-site retention of runoff from proposed retention and infiltration BMPs. Volume retention estimates are sensitive to the percolation rate used, which determines the amount of runoff that can be infiltrated within the specified drawdown time. The infiltration safety factor reduces field measured percolation to account for potential inaccuracy associated with field measurements, declining BMP performance over time, and compaction during construction. Appendix D of the TGD for WQMP provides guidance on estimating an appropriate safety factor to use in Form 4.3-3.

If site constraints limit the use of BMPs to a single type and implementation of retention and infiltration BMPs mitigate no more than 40% of the DCV, then they are considered infeasible and the Project Proponent may evaluate the effectiveness of BMPs lower in the LID hierarchy of use (Section 5.5.1 of the TGD for WQMP)

If implementation of infiltrations BMPs is feasible as determined using Form 4.3-1, then LID infiltration BMPs shall be implemented to the MEP (section 4.1 of the TGD for WQMP).

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Form 4.3-3 Infiltration LID BMP - including underground BMPs (DA 1)

1 Remaining LID DCV not met by site design HSC BMP (ft^3): 9,619 *V_{unmet} = Form 4.2-1 Item 7 - Form 4.3-2 Item 30*			
BMP Type *Use columns to the right to compute runoff volume retention from proposed infiltration BMP (select BMP from Table 5-4 in TGD for WQMP) - Use additional forms for more BMPs*	DA 1 DMA - BMP Type: UG System	DA DMA BMP Type	DA DMA BMP Type
2 Infiltration rate of underlying soils (in/hr) *See Section 5.4.2 and Appendix D of the TGD for WQMP for minimum requirements for assessment methods*	39.3 (see Infiltration Report in attachment D)	-	-
3 Infiltration safety factor *See TGD Section 5.4.2 and Appendix D*	5 per Worksheet H, See Attachment D	-	-
4 Design percolation rate (in/hr) *P_{design} = Item 2 / Item 3*	2.4	-	-
5 Ponded water drawdown time (hr) *Copy Item 6 in Form 4.2-1*	48	-	-
6 Maximum ponding depth (ft) *BMP specific, see Table 5-4 of the TGD for WQMP for BMP design details*	9.6	-	-
7 Ponding Depth (ft) *d_{BMP} = Minimum of (1/12*Item 4*Item 5) or Item 6*	7	-	-
8 Infiltrating surface area, SA_{BMP} (ft^2) *the lesser of the area needed for infiltration of full DCV or minimum space requirements from Table 5.7 of the TGD for WQMP*	35' x 70' See Attachment B	-	-
9 Amended soil depth, d_{media} (ft) *Only included in certain BMP types, see Table 5-4 in the TGD for WQMP for reference to BMP design details*	N/A	-	-
10 Amended soil porosity	N/A	-	-
11 Gravel depth, d_{media} (ft) *Only included in certain BMP types, see Table 5-4 of the TGD for WQMP for BMP design details*	N/A	-	-
12 Gravel porosity	N/A	-	-
13 Duration of storm as basin is filling (hrs) *Typical ~ 3hrs*	N/A	-	-
14 Above Ground Retention Volume (ft^3) *$V_{retention}$ = Item 8 * [Item7 + (Item 9 * Item 10) + (Item 11 * Item 12) + (Item 13 * (Item 4 / 12))]*	N/A	-	-
15 Underground Retention Volume (ft^3) *Volume determined using manufacturer's specifications and calculations*	11,780	-	-
16 Total Retention Volume from LID Infiltration BMPs: 11,780 *(Sum of Items 14 and 15 for all infiltration BMP included in plan)*			
17 Fraction of DCV achieved with infiltration BMP: 119% *Retention% = Item 16 / Form 4.2-1 Item 7*			
18 Is full LID DCV retained onsite with combination of hydrologic source control and LID retention/infiltration BMPs? Yes ☒ No ☐ *If yes, demonstrate conformance using Form 4.3-10; If no, then reduce Item 3, Factor of Safety to 2.0 and increase Item 8, Infiltrating Surface Area, such that the portion of the site area used for retention and infiltration BMPs equals or exceeds the minimum effective area thresholds (Table 5-7 of the TGD for WQMP) for the applicable category of development and repeat all above calculations.*			

4.3.3 Harvest and Use BMP (N/A)

Harvest and use BMP may be considered if the full LID DCV cannot be met by maximizing infiltration BMPs. Use Form 4.3-4 to compute on-site retention of runoff from proposed harvest and use BMPs.

Volume retention estimates for harvest and use BMPs are sensitive to the on-site demand for captured stormwater. Since irrigation water demand is low in the wet season, when most rainfall events occur in San Bernardino County, the volume of water that can be used within a specified drawdown period is relatively low. The bottom portion of Form 4.3-4 facilitates the necessary computations to show infeasibility if a minimum incremental benefit of 40 percent of the LID DCV would not be achievable with MEP implementation of on-site harvest and use of stormwater (Section 5.5.4 of the TGD for WQMP).

Form 4.3-4 Harvest and Use BMPs (DA 1) (N/A)

1 Remaining LID DCV not met by site design HSC or infiltration BMP (ft^3): 0
V_{unmet} = Form 4.2-1 Item 7 - Form 4.3-2 Item 30 – Form 4.3-3 Item 16

BMP Type(s) *Compute runoff volume retention from proposed harvest and use BMP (Select BMPs from Table 5-4 of the TGD for WQMP) - Use additional forms for more BMPs*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
2 Describe cistern or runoff detention facility			
3 Storage volume for proposed detention type (ft^3) *Volume of cistern*			
4 Landscaped area planned for use of harvested stormwater (ft^2)			
5 Average wet season daily irrigation demand (in/day) Use local values, typical ~ 0.1 in/day			
6 Daily water demand (ft^3/day) *Item 4 * (Item 5 / 12)*			
7 Drawdown time (hrs) *Copy Item 6 from Form 4.2-1*			
8 Retention Volume (ft^3) *$V_{retention}$ = Minimum of (Item 3) or (Item 6 * (Item 7 / 24))*			

9 Total Retention Volume (ft^3) from Harvest and Use BMP0 *Sum of Item 8 for all harvest and use BMP included in plan*

10 Is the full DCV retained with a combination of LID HSC, retention and infiltration, and harvest & use BMPs? Yes ☐ No ☐
If yes, demonstrate conformance using Form 4.3-10. If no, then re-evaluate combinations of all LID BMP and optimize their implementation such that the maximum portion of the DCV is retained on-site (using a single BMP type or combination of BMP types). If the full DCV cannot be mitigated after this optimization process, proceed to Section 4.3.4.

4.3.4 Biotreatment BMP (N/A)

Biotreatment BMPs may be considered if the full LID DCV cannot be met by maximizing retention and infiltration, and harvest and use BMPs. A key consideration when using biotreatment BMP is the effectiveness of the proposed BMP in addressing the pollutants of concern for the project (see Table 5-5 of the TGD for WQMP).

Use Form 4.3-5 to summarize the potential for volume based and/or flow based biotreatment options to biotreat the remaining unmet LID DCV w. Biotreatment computations are included as follows:

- Use Form 4.3-6 to compute biotreatment in small volume based biotreatment BMP (e.g. bioretention w/underdrains);
- Use Form 4.3-7 to compute biotreatment in large volume based biotreatment BMP (e.g. constructed wetlands);
- Use Form 4.3-8 to compute sizing criteria for flow-based biotreatment BMP (e.g. bioswales)

Form 4.3-5 Selection and Evaluation of Biotreatment BMP (DA 1) (N/A)

1 Remaining LID DCV not met by site design HSC, infiltration, or harvest and use BMP for potential biotreatment (ft^3): *Form 4.2-1 Item 7 - Form 4.3-2 Item 30 – Form 4.3-3 Item 16- Form 4.3-4 Item 9*	List pollutants of concern *Copy from Form 2.3-1.*	
2 Biotreatment BMP Selected *(Select biotreatment BMP(s) necessary to ensure all pollutants of concern are addressed through Unit Operations and Processes, described in Table 5-5 of the TGD for WQMP)*	Volume-based biotreatment *Use Forms 4.3-6 and 4.3-7 to compute treated volume*	Flow-based biotreatment *Use Form 4.3-8 to compute treated volume*
	☐ Bioretention with underdrain ☐ Planter box with underdrain ☐ Constructed wetlands ☐ Wet extended detention ☐ Dry extended detention	☐ Vegetated swale ☐ Vegetated filter strip ☐ Proprietary biotreatment
3 Volume biotreated in volume based biotreatment BMP (ft^3): *Form 4.3-6 Item 15 + Form 4.3-7 Item 13*	**4** Compute remaining LID DCV with implementation of volume based biotreatment BMP (ft^3): *Item 1 – Item 3*	**5** Remaining fraction of LID DCV for sizing flow based biotreatment BMP: % *Item 4 / Item 1*
6 Flow-based biotreatment BMP capacity provided (cfs): *Use Figure 5-2 of the TGD for WQMP to determine flow capacity required to provide biotreatment of remaining percentage of unmet LID DCV (Item 5), for the project's precipitation zone (Form 3-1 Item 1)*		
7 Metrics for MEP determination: • Provided a WQMP with the portion of site area used for suite of LID BMP equal to minimum thresholds in Table 5-7 of the TGD for WQMP for the proposed category of development: ☐ *If maximized on-site retention BMPs is feasible for partial capture, then LID BMP implementation must be optimized to retain and infiltrate the maximum portion of the DCV possible within the prescribed minimum effective area. The remaining portion of the DCV shall then be mitigated using biotreatment BMP.*		

Form 4.3-6 Volume Based Biotreatment (DA 1) – Bioretention and Planter Boxes with Underdrains (N/A)

Biotreatment BMP Type *(Bioretention w/underdrain, planter box w/underdrain, other comparable BMP)*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
1 Pollutants addressed with BMP *List all pollutant of concern that will be effectively reduced through specific Unit Operations and Processes described in Table 5-5 of the TGD for WQMP*			
2 Amended soil infiltration rate *Typical ~ 5.0*			
3 Amended soil infiltration safety factor *Typical ~ 2.0*			
4 Amended soil design percolation rate (in/hr) P_{design} *= Item 2 / Item 3*			
5 Ponded water drawdown time (hr) *Copy Item 6 from Form 4.2-1*			
6 Maximum ponding depth (ft) *see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
7 Ponding Depth (ft) d_{BMP} *= Minimum of (1/12 * Item 4 * Item 5) or Item 6*			
8 Amended soil surface area (ft^2)			
9 Amended soil depth (ft) *see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
10 Amended soil porosity, *n*			
11 Gravel depth (ft) *see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
12 Gravel porosity, *n*			
13 Duration of storm as basin is filling (hrs) *Typical ~ 3hrs*			
14 Biotreated Volume (ft^3) $V_{biotreated}$ *= Item 8 * [(Item 7/2) + (Item 9 * Item 10) +(Item 11 * Item 12) + (Item 13 * (Item 4 / 12))]*			
15 Total biotreated volume from bioretention and/or planter box with underdrains BMP: 0 *Sum of Item 14 for all volume-based BMPs included in this form*			

Form 4.3-7 Volume Based Biotreatment (DA 1) – Constructed Wetlands and Extended Detention (N/A)

Biotreatment BMP Type *Constructed wetlands, extended wet detention, extended dry detention, or other comparable proprietary BMP. If BMP includes multiple modules (e.g. forebay and main basin), provide separate estimates for storage and pollutants treated in each module.*	DA DMA BMP Type		DA DMA BMP Type *(Use additional forms for more BMPs)*	
	Forebay	Basin	Forebay	Basin
1 Pollutants addressed with BMP forebay and basin *List all pollutant of concern that will be effectively reduced through specific Unit Operations and Processes described in Table 5-5 of the TGD for WQMP*				
2 Bottom width (ft)				
3 Bottom length (ft)				
4 Bottom area (ft^2) A_{bottom} *= Item 2 * Item 3*				
5 Side slope (ft/ft)				
6 Depth of storage (ft)				
7 Water surface area (ft^2) $A_{surface}$ *=(Item 2 + (2 * Item 5 * Item 6)) * (Item 3 + (2 * Item 5 * Item 6))*				
8 Storage volume (ft^3) *For BMP with a forebay, ensure fraction of total storage is within ranges specified in BMP specific fact sheets, see Table 5-6 of the TGD for WQMP for reference to BMP design details* V *=Item 6 / 3 * [Item 4 + Item 7 + (Item 4 * Item 7)^0.5]*				
9 Drawdown Time (hrs) *Copy Item 6 from Form 2.1*				
10 Outflow rate (cfs) Q_{BMP} *= (Item* $8_{forebay}$ *+ Item* 8_{basin}*) / (Item 9 * 3600)*				
11 Duration of design storm event (hrs)				
12 Biotreated Volume (ft^3) $V_{biotreated}$ *= (Item* $8_{forebay}$ *+ Item* 8_{basin}*) +(Item 10 * Item 11 * 3600)*				
13 Total biotreated volume from constructed wetlands, extended dry detention, or extended wet detention : 0 *(Sum of Item 12 for all BMP included in plan)*				

Form 4.3-8 Flow Based Biotreatment (DA 1) (N/A)

Biotreatment BMP Type *Vegetated swale, vegetated filter strip, or other comparable proprietary BMP*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
1 Pollutants addressed with BMP *List all pollutant of concern that will be effectively reduced through specific Unit Operations and Processes described in TGD Table 5-5*			
2 Flow depth for water quality treatment (ft) *BMP specific, see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
3 Bed slope (ft/ft) *BMP specific, see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
4 Manning's roughness coefficient			
5 Bottom width (ft) b_w *= (Form 4.3-5 Item 6 * Item 4) / (1.49 * Item 2^1.67 * Item 3^0.5)*			
6 Side Slope (ft/ft) *BMP specific, see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
7 Cross sectional area (ft^2) *A = (Item 5 * Item 2) + (Item 6 * Item 2^2)*			
8 Water quality flow velocity (ft/sec) *V = Form 4.3-5 Item 6 / Item 7*			
9 Hydraulic residence time (min) *Pollutant specific, see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
10 Length of flow based BMP (ft) *L = Item 8 * Item 9 * 60*			
11 Water surface area at water quality flow depth (ft^2) SA_{top} *= (Item 5 + (2 * Item 2 * Item 6)) * Item 10*			

4.3.5 Conformance Summary

Complete Form 4.3-9 to demonstrate how on-site LID DCV is met with proposed site design hydrologic source control, infiltration, harvest and use, and/or biotreatment BMP. The bottom line of the form is used to describe the basis for infeasibility determination for on-site LID BMP to achieve full LID DCV, and provides methods for computing remaining volume to be addressed in an alternative compliance plan. If the project has more than one outlet, then complete additional versions of this form for each outlet.

Form 4.3-9 Conformance Summary and Alternative Compliance Volume Estimate (DA 1)

1 Total LID DCV for the Project DA-1 (ft^3): 9,936 *Copy Item 7 in Form 4.2-1*

2 On-site retention with site design hydrologic source control LID BMP (ft^3): 0 *Copy Item 30 in Form 4.3-2*

3 On-site retention with LID infiltration BMP (ft^3): 11,780 *Copy Item 16 in Form 4.3-3*

4 On-site retention with LID harvest and use BMP (ft^3): 0 *Copy Item 9 in Form 4.3-4*

5 On-site biotreatment with volume based biotreatment BMP (ft^3): 0 *Copy Item 3 in Form 4.3-5*

6 Flow capacity provided by flow based biotreatment BMP (cfs): 0 *Copy Item 6 in Form 4.3-5*

7 LID BMP performance criteria are achieved if answer to any of the following is "Yes":

- Full retention of LID DCV with site design HSC, infiltration, or harvest and use BMP: Yes ☒ No ☐
  If yes, sum of Items 2, 3, and 4 is greater than Item 1
- Combination of on-site retention BMPs for a portion of the LID DCV and volume-based biotreatment BMP that address all pollutants of concern for the remaining LID DCV: Yes ☐ No ☐
  If yes, a) sum of Items 2, 3, 4, and 5 is greater than Item 1, and Items 2, 3 and 4 are maximized; or b) Item 6 is greater than Form 4.3--5 Item 6 and Items 2, 3 and 4 are maximized
- On-site retention and infiltration is determined to be infeasible and biotreatment BMP provide biotreatment for all pollutants of concern for full LID DCV: Yes ☐ No ☐
  If yes, Form 4.3-1 Items 7 and 8 were both checked yes

8 If the LID DCV is not achieved by any of these means, then the project may be allowed to develop an alternative compliance plan. Check box that describes the scenario which caused the need for alternative compliance:

- Combination of HSC, retention and infiltration, harvest and use, and biotreatment BMPs provide less than full LID DCV capture: ☐
  Checked yes for Form 4.3-5 Item 7, Item 6 is zero, and sum of Items 2, 3, 4, and 5 is less than Item 1. If so, apply water quality credits and calculate volume for alternative compliance, V_{alt} *= (Item 1 – Item 2 – Item 3 – Item 4 – Item 5) * (100 - Form 2.4-1 Item 2)%*
- An approved Watershed Action Plan (WAP) demonstrates that water quality and hydrologic impacts of urbanization are more effective when managed in at an off-site facility: ☐
  Attach appropriate WAP section, including technical documentation, showing effectiveness comparisons for the project site and regional watershed

4.3.6 Hydromodification Control BMP

Use Form 4.3-10 to compute the remaining runoff volume retention, after LID BMP are implemented, needed to address HCOC, and the increase in time of concentration and decrease in peak runoff necessary to meet targets for protection of waterbodies with a potential HCOC. Describe hydromodification control BMP that address HCOC, which may include off-site BMP and/or in-stream controls. Section 5.6 of the TGD for WQMP provides additional details on selection and evaluation of hydromodification control BMP.

Form 4.3-10 Hydromodification Control BMPs (DA 1)

1 Volume reduction needed for HCOC performance criteria (ft^3): 0 *(Form 4.2-2 Item 4 * 0.95) – Form 4.2-2 Item 1*	**2** On-site retention with site design hydrologic source control, infiltration, and harvest and use LID BMP (ft^3): 11,780 *Sum of Form 4.3-9 Items 2, 3, and 4 Evaluate option to increase implementation of on-site retention in Forms 4.3-2, 4.3-3, and 4.3-4 in excess of LID DCV toward achieving HCOC volume reduction*
3 Remaining volume for HCOC volume capture (ft^3): 0 *Item 1 – Item 2*	**4** Volume capture provided by incorporating additional on-site or off-site retention BMPs (ft^3): 0 *Existing downstream BMP may be used to demonstrate additional volume capture (if so, attach to this WQMP a hydrologic analysis showing how the additional volume would be retained during a 2-yr storm event for the regional watershed)*

5 If Item 4 is less than Item 3, incorporate in-stream controls on downstream waterbody segment to prevent impacts due to hydromodification ☐ *Attach in-stream control BMP selection and evaluation to this WQMP*

6 Is Form 4.2-2 Item 11 less than or equal to 5%: Yes ☐ No ☐

If yes, HCOC performance criteria is achieved. If no, select one or more mitigation options below:

- Demonstrate increase in time of concentration achieved by proposed LID site design, LID BMP, and additional on-site or off-site retention BMP ☐
  BMP upstream of a waterbody segment with a potential HCOC may be used to demonstrate increased time of concentration through hydrograph attenuation (if so, show that the hydraulic residence time provided in BMP for a 2-year storm event is equal or greater than the addition time of concentration requirement in Form 4.2-4 Item 15)
- Increase time of concentration by preserving pre-developed flow path and/or increase travel time by reducing slope and increasing cross-sectional area and roughness for proposed on-site conveyance facilities ☐
- Incorporate appropriate in-stream controls for downstream waterbody segment to prevent impacts due to hydromodification, in a plan approved and signed by a licensed engineer in the State of California ☐

7 Form 4.2-2 Item 12 less than or equal to 5%: Yes ☐ No ☐

If yes, HCOC performance criteria is achieved. If no, select one or more mitigation options below:

- Demonstrate reduction in peak runoff achieved by proposed LID site design, LID BMPs, and additional on-site or off-site retention BMPs ☐
  BMPs upstream of a waterbody segment with a potential HCOC may be used to demonstrate additional peak runoff reduction through hydrograph attenuation (if so, attach to this WQMP, a hydrograph analysis showing how the peak runoff would be reduced during a 2-yr storm event)
- Incorporate appropriate in-stream controls for downstream waterbody segment to prevent impacts due to hydromodification, in a plan approved and signed by a licensed engineer in the State of California ☐

4.4 Alternative Compliance Plan (if applicable)

Describe an alternative compliance plan (if applicable) for projects not fully able to infiltrate, harvest and use, or biotreat the DCV via on-site LID practices. A project proponent must develop an alternative compliance plan to address the remainder of the LID DCV. Depending on project type some projects may qualify for water quality credits that can be applied to reduce the DCV that must be treated prior to development of an alternative compliance plan (see Form 2.4-1, Water Quality Credits). Form 4.3-9 Item 8 includes instructions on how to apply water quality credits when computing the DCV that must be met through alternative compliance. Alternative compliance plans may include one or more of the following elements:

- On-site structural treatment control BMP - All treatment control BMP should be located as close to possible to the pollutant sources and should not be located within receiving waters;
- Off-site structural treatment control BMP - Pollutant removal should occur prior to discharge of runoff to receiving waters;
- Urban runoff fund or In-lieu program, if available

Depending upon the proposed alternative compliance plan, approval by the executive officer may or may not be required (see Section 6 of the TGD for WQMP).

Section 5 Inspection and Maintenance Responsibility for Post Construction BMP

All BMP included as part of the project WQMP are required to be maintained through regular scheduled inspection and maintenance (refer to Section 8, Post Construction BMP Requirements, in the TGD for WQMP). Fully complete Form 5-1 summarizing all BMP included in the WQMP. Attach additional forms as needed. The WQMP shall also include a detailed Operation and Maintenance Plan for all BMP and may require a Maintenance Agreement (consult the jurisdiction's LIP). If a Maintenance Agreement is required, it must also be attached to the WQMP.

Form 5-1 BMP Inspection and Maintenance (use additional forms as necessary)

BMP	Reponsible Party(s)	Inspection/ Maintenance Activities Required	Minimum Frequency of Activities
UG Infilt./ deten. System	Owner	- Inspect system for standing water. If system has standing water, perform re-inspection within 48 hours. If system still has standing water then the system shall be pumped and removed debris shall be disposed of in a legal manner. - Maintain UG-Infiltration Basin System is easiest when there is no flow entering the system. For this reason, maintenance should be scheduled during the dry weather (season). Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. Manhole cover should be securely seated following cleaning activities.	Quarterly and Prior to storm event and 48 hours after storm has passed
Loading Dock and Parking Lot Sweeping N15	Owner	Sweep loading dock and parking lot and truck courts.	Monthly / As needed.
Truck Dock N13	Owner	Inspect loading dock for trash debris and sediments. Inspect loading dock for evidence of spills and broken containers. Clean up spills and dispose of collected material in a legal manner.	Weekly
Planting N3	Owner	Inspect health of planting and erosion of landscape area. Trimming trees and bushes when needed.	Monthly

Efficient Irrigation S4	Owner	- Inspect irrigation system general operation and durations. - Repair damaged sprinkler and drip irrigation lines as needed. - Reduce durations during the winter season to prevent over irrigation.	Monthly
Storm drain system signage S1	Owner	Inspect Catch basin signage for faded or lost signs / repair or replace as needed.	Annualy
Trash Storage Areas and Litter Control (SD-32) N2	Owner	Inspect trash container, lids, screens and clean trash storage areas.	Weekly
Contech CDS Unit N17	Owner	Inspect system for sediment, floating trash and debris.	Quarterly and Prior to storm event and 48 hours after storm has passed
Employee Training / Education Program N12	Owner	Building tenants to provide BMP training and hand out educational materials.	Annually or upon hire

Section 6 WQMP Attachments

6.1. Site Plan and Drainage Plan

Include a site plan and drainage plan sheet set containing the following minimum information:

- Project location
- Site boundary
- Land uses and land covers, as applicable
- Suitability/feasibility constraints
- Structural Source Control BMP locations
- Site Design Hydrologic Source Control BMP locations
- LID BMP details
- Drainage delineations and flow information
- Drainage connections

6.2 Electronic Data Submittal

Minimum requirements include submittal of PDF exhibits in addition to hard copies. Format must not require specialized software to open. If the local jurisdiction requires specialized electronic document formats (as described in their local Local Implementation Plan), this section will describe the contents (e.g., layering, nomenclature, geo-referencing, etc.) of these documents so that they may be interpreted efficiently and accurately.

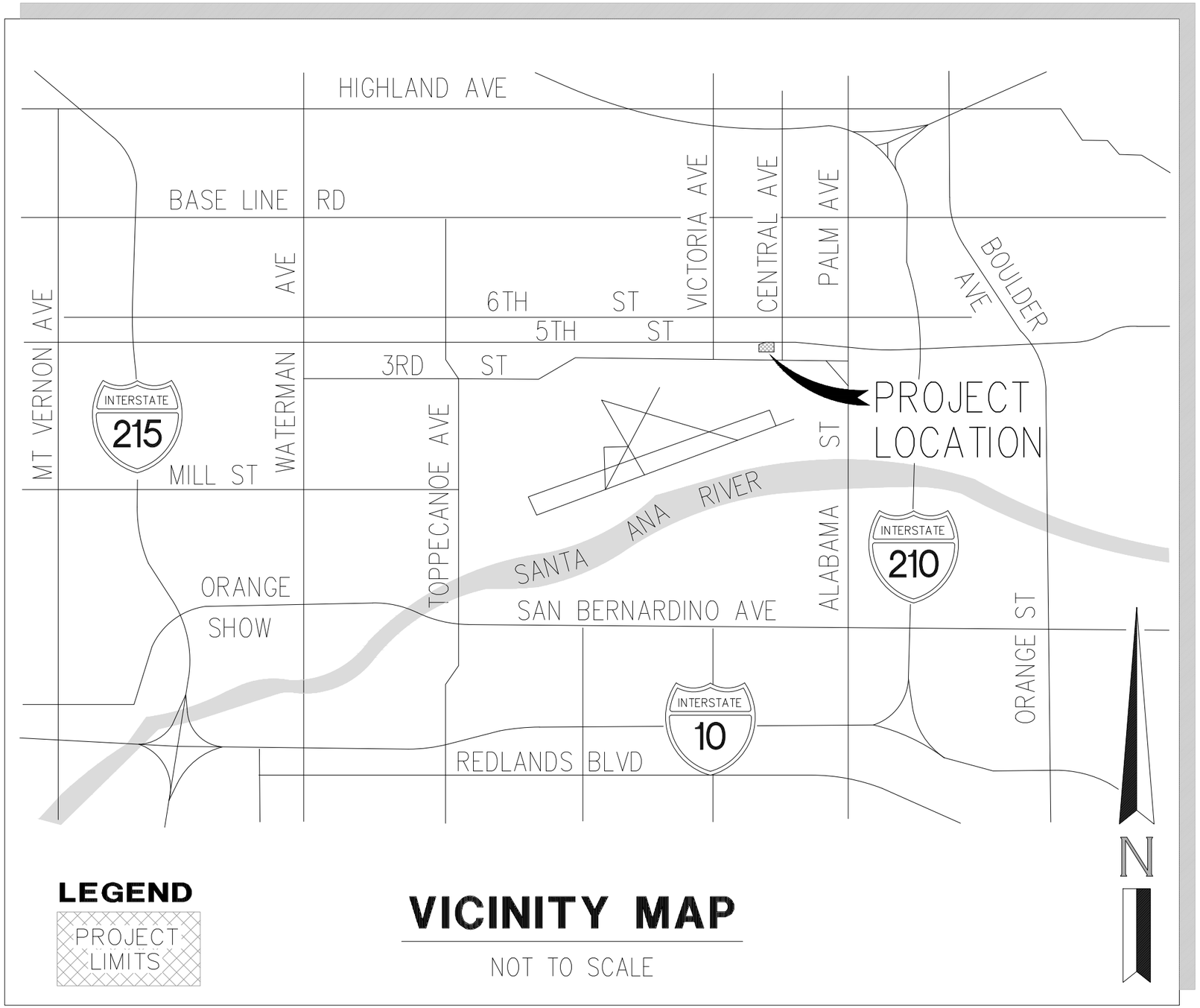
6.3 Post Construction

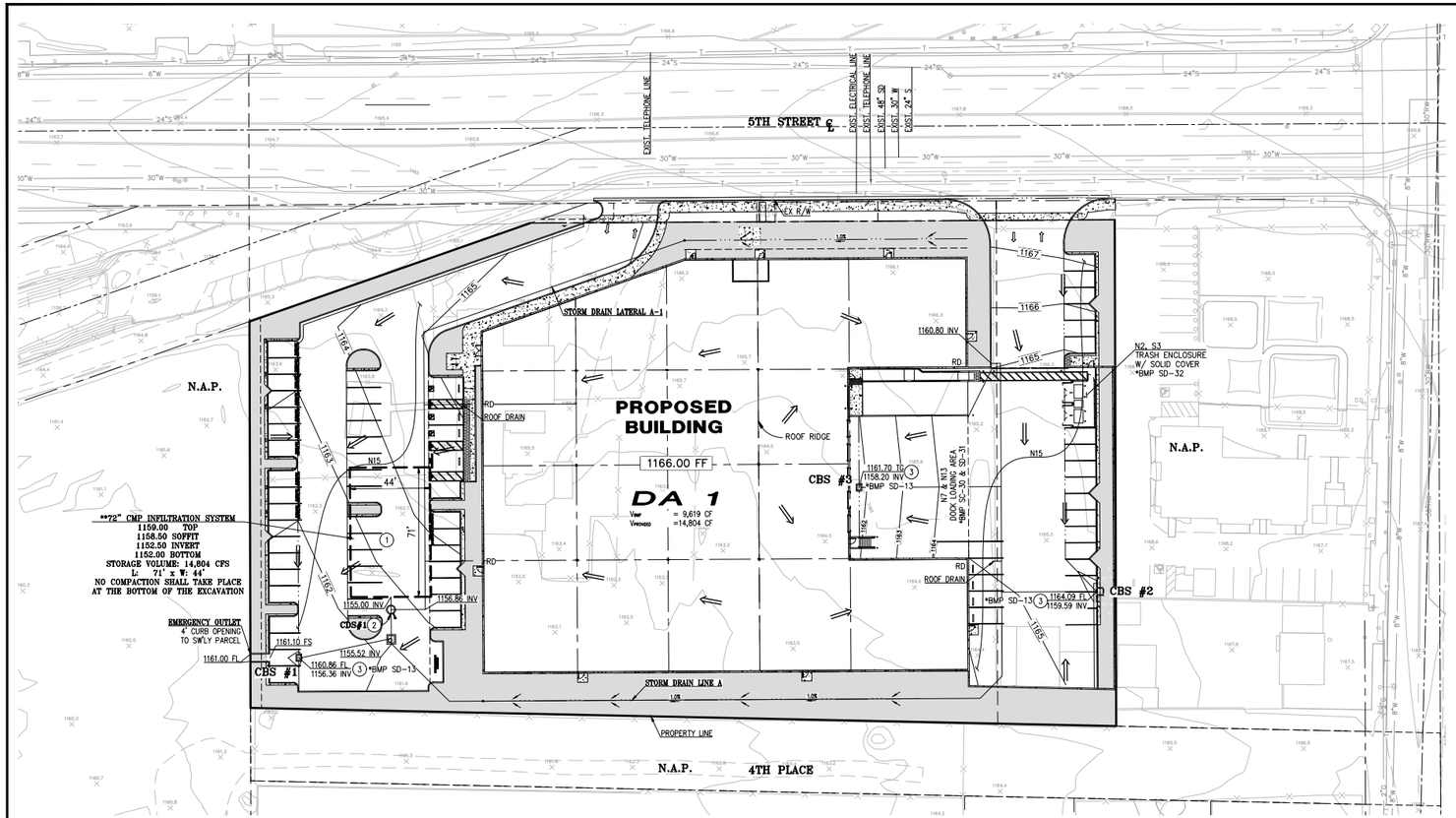
Attach all O&M Plans and Maintenance Agreements for BMP to the WQMP.

6.4 Other Supporting Documentation

- BMP Educational Materials
- Activity Restriction – C, C&R's & Lease Agreements

Attachment A
WQMP Site Plan


HIGHLAND AVE
BASE LINE RD
MT VERNON AVE
WATERMAN AVE
VICTORIA AVE
CENTRAL AVE
PALM AVE
BOULDER AVE
6TH ST
5TH ST
3RD ST
INTERSTATE 215
MILL ST
TOPPECANOE AVE
ALABAMA ST
PROJECT LOCATION
SANTA ANA RIVER
INTERSTATE 210
ORANGE SHOW
SAN BERNARDINO AVE
ORANGE ST
INTERSTATE 10
REDLANDS BLVD
N
LEGEND
PROJECT LIMITS
VICINITY MAP
NOT TO SCALE



*SEE WQMP REPORT ATTACHMENT C FOR BMP FACT SHEETS

LEGEND

- PROPOSED STORM DRAIN
- PROPOSED FLOWLINE
- DRAINAGE AREA BOUNDARY
- PROPOSED CATCH BASIN INLET, SOURCE CONTROL BMP: N11, N14, N17, & S1
- PROPOSED LANDSCAPING AREA – *BMP SD-10 & SD-12
  SOURCE CONTROL BMP: N3, S4, & S5
- CB CATCH BASIN
- RD ROOF DRAIN
- FLOW DIRECTION

WQMP BMP NOTES

**(1) INSTALL INFILTRATION/DETENTION SYSTEM PER DETAIL ON SHEET 2

(2) INSTALL CONTECH CDS UNIT PER DETAIL HEREON

(3) INSTALL STORM DRAIN STENCIL, SEE SAMPLE HEREON

**THE UNDERGROUND SYSTEM IS ALSO SIZED TO DETAIN 100-YEAR STORM FULLY FOR MITIGATION TO EXISTING CONDITION.

SOURCE CONTROL BMPs INCLUDED ONSITE		
IDENTIFIER	DESCRIPTION OF BMP	RESPONSIBLE PARTY
N2	INSPECT/MAINTAIN TRASH CONTAINER	OWNER
N3	LANDSCAPE MAINTENANCE BMP'S	OWNER
N7	PROVIDE SPILL PLAN	OWNER
N11	LITTER/DEBRIS CONTROL PROGRAM	OWNER
N13	HOUSEKEEPING OF LOADING DOCKS	OWNER
N14	CATCH BASIN INSPECTION PROGRAM	OWNER
N15	VACUUM SWEEPING OF PARKING LOTS	OWNER
N17	NPDES COMPLIANCE	OWNER
S1	STORM DRAIN STENCILING	OWNER
S3	REDUCED WASTE STORAGE POLLUTION	OWNER
S4	EFFICIENT IRRIGATION SYSTEM	OWNER
S5	LANDSCAPING MIN. 1-2" BELOW PAVEMENT	OWNER

*SEE WQMP REPORT ATTACHMENT C FOR BMP FACT SHEET

WQMP MANAGEMENT - VOLUME BASE (ON-SITE)

	DMA Area (SF)	Imperviousness (%)	Runoff Coefficient	P 2yr-1hr	P6	Drawdown Rate	Design Capture Volume (CF)	BMP	LID BMP Volume Provided (CF)
DA 1	124,788	0.82	0.62	0.515	0.76	1.963	9,619	Underground Infiltration/ Detention System	14,804**



3 STORM DRAIN STENCIL
NOT TO SCALE

NOTES:
1. NO COMPACTION SHALL TAKE PLACE AT THE BOTTOM OF THE EXCAVATION OF THE PROPOSED UNDERGROUND INFILTRATION SYSTEM.
2. THE PROPOSED BMP LOCATIONS ARE NOT TO BE USED FOR STORAGE OF EQUIPMENTS, VECHICLES, OR MATERIALS DURING CONSTRUCTION. THE BMPS ARE TO BE PROTECTED FROM RUNOFF AND ARE NOT TO BE USED AS SEDIMENT TRAPS OR SEDIMENT BASINS DURING CONSTRUCTION.
3. CONTRACTOR MUST COORDINATE TWO DOUBLE RING INFILTRATION TESTS AT THE BOTTOM OF THE UNDERGROUND CHAMBER TRENCH TO CONFIRM THE INFILTRATION RATES PRIOR TO INSTALLATION OF THE CHAMBERS.

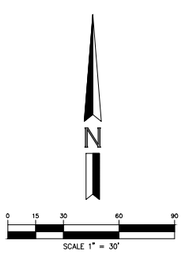
WQMP BMP AS-BUILT CERTIFICATE

I HEREBY CERTIFY THAT THE WATER QUALITY MANAGEMENT PLAN BEST MANAGEMENT PRACTICES HAVE BEEN CONSTRUCTED UNDER MY SUPERVISION IN ACCORDANCE WITH THE APPROVED PLANS AND ARE FUNCTIONAL TO THE BEST OF MY KNOWLEDGE.

SIGNATURE _____ DATE _____

ENGINEER
HUITT-ZOLLARS
3990 CONCOURS, SUITE 330
ONTARIO, CALIFORNIA 91764
PHONE: (909) 941-7799

OWNER
PATRIOT DEVELOPMENT PARTNERS
116 NOB AVENUE
DEL MAR, CA 92014
PHONE: 858-952-4134
CONTACT: KEVIN RICE



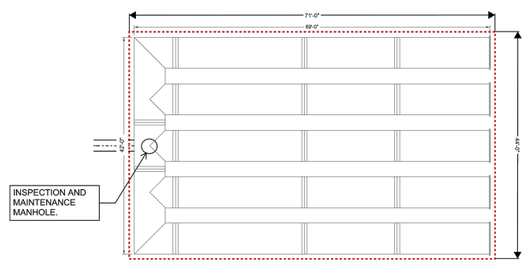
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS50HS25
- APPROX. LINEAR FOOTAGE = 357 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 14,800 CF
- PIPE STORAGE VOLUME = 10,094 CF
- BACKFILL STORAGE VOLUME = 4,710 CF
- TOTAL STORAGE PROVIDED = 14,804 CF

PIPE DETAILS
- DIAMETER = 72"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 36"

BACKFILL DETAILS
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 6"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 6"



NOTES
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND CONNECTIONS SHOWN ON THIS DRAWING MUST BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2⅔" x ½" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. CUT PIPE AS REQUIRED FOR PROPER FIT AT MANHOLE AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- SAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE PRELIMINARY DESIGN. ALL QUANTITIES SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL JURISDICTION FOR MODIFICATIONS.

Package Prepared for CONTECH Engineered Solutions LLC
In a world of ever-changing codes, engineers are burdened by the responsibility of staying up to date. Even after the drawing, bid and permit lifecycle has been abandoned, an engineer's duty to know and comply with the latest codes is constant. Failure to comply in terms of the work now still and always has severely detrimental effects, including the loss of your seal.
If this package is delivered more than a year after your initial purchase, it is your responsibility to verify that the drawings are still valid and appropriate. Note that the drawings must be signed and sealed by a licensed professional engineer. Note that the engineer accepts no liability for changes made to or missing information in subsequently distributed, modified, or altered drawings.

DATE	REVISION DESCRIPTION	BY

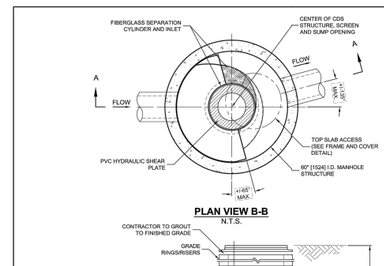
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYO05 DRAWING

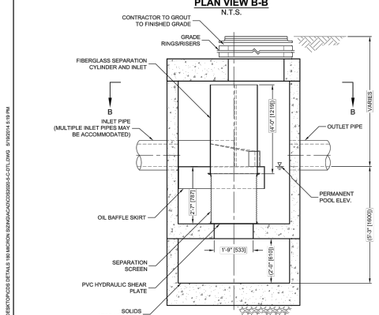
DYO26777 Patriot - 5th at Central Industrial
Infiltration Detention System
Highland, CA
DETENTION SYSTEM

PROJECT No.: 17761	SEQ. No.: 28772	DATE: 3/7/2023
DESIGNER: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

1 CONTECH 72" CMP SYSTEM
NOT TO SCALE



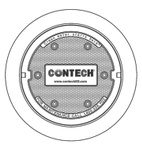
PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

2 CONTECH CDS 2020-5-C
NOT TO SCALE

CDS2020-5-C DESIGN NOTES
THE STANDARD CDS2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			CDS#1
WATER QUALITY FLOW RATE (CFS OR L/s)			0.48 CFS
PEAK FLOW RATE (CFS OR L/s)			16.3 CFS
RETURN PERIOD OF PEAK FLOW (YRS)			100
SCREEN APERTURE (2400 OR 4700)			2400
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	*	*	
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

DETAIL WILL BE PROVIDED IN FINAL WQMP

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE, www.contechES.com.
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. ALL CDS STRUCTURES SHALL MEET AASHTO H20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING LUGS/HOLES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2020-5-C
INLINE CDS
STANDARD DETAIL

CONCEPTUAL WATER QUALITY MANAGEMENT PLAN
FOR
5TH AT CENTRAL INDUSTRIAL
CITY OF HIGHLAND

HUITT-ZOLLARS
HUITT-ZOLLARS, INC.
3990 CONCOURS, SUITE 330 • ONTARIO, CALIFORNIA 91764 • (909) 941-7799

DESIGNED BY	RP
DRAWN BY	TA
CHECKED BY	DW
FIELD BOOK	

SHEET 1 OF 2 SHEETS
JOB NO. 31583401

C:\USERS\DYO\ONEDRIVE - HUITT-ZOLLARS, INC\DOCUMENTS\PROJECTS\315834\01 - PATRIOT - 5TH AT CENTRAL INDUSTRIAL\CIVIL\WQMP\WQMP.dwg, Layout: 01, Feb 08 2023 3:05pm

Attachment B
Supporting Calc's & Manufacturer's Details

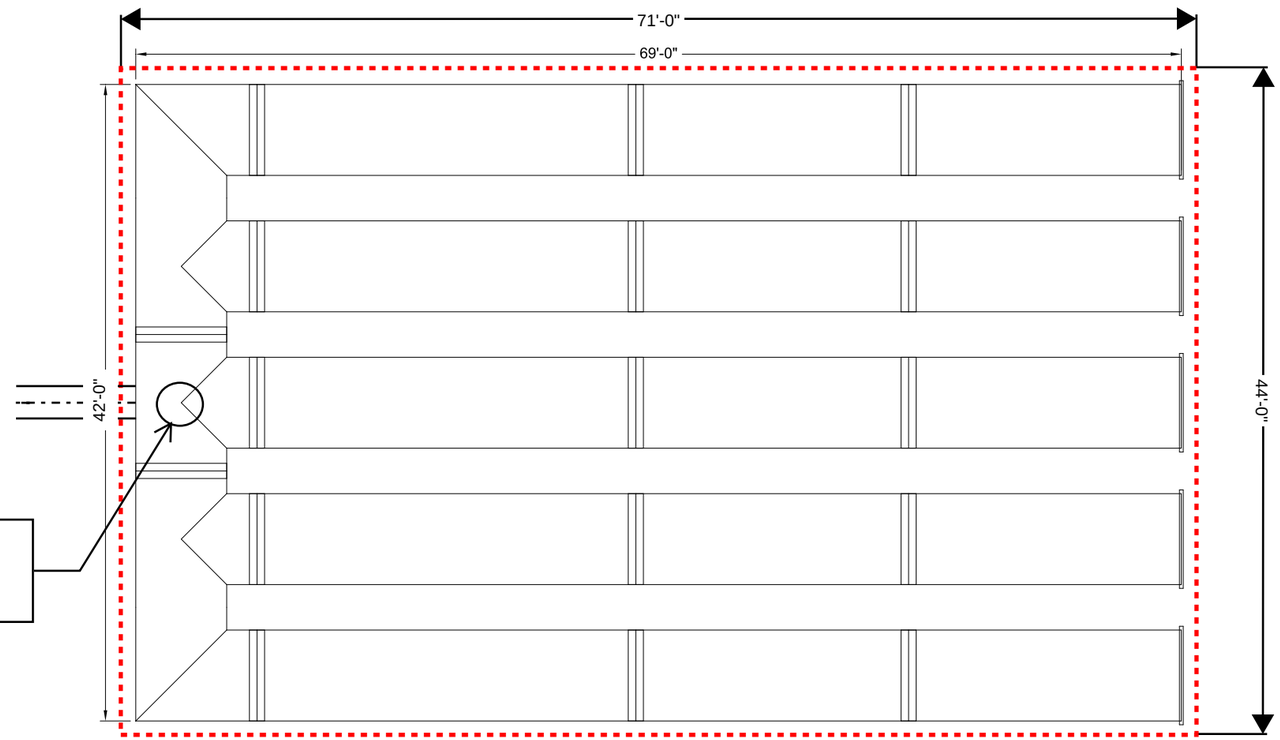
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 357 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 14,800 CF
- PIPE STORAGE VOLUME = 10,094 CF
- BACKFILL STORAGE VOLUME = 4,710 CF
- TOTAL STORAGE PROVIDED = 14,804 CF

PIPE DETAILS
- DIAMETER = 72"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 36"

BACKFILL DETAILS
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 6"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 6"



NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

ASSEMBLY
SCALE: 1" = 10'

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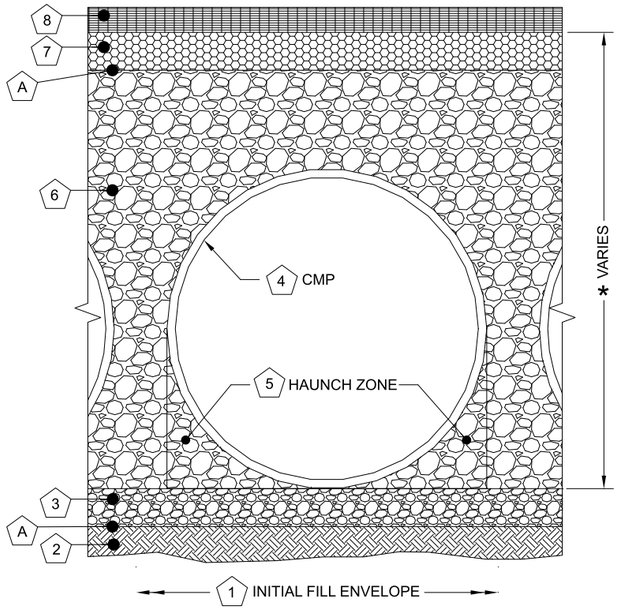
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CONTECH CMP DETENTION SYSTEMS
CONTECH **DYODS** DRAWING

DYO26777 Patriot - 5th at Central Industrial
Infiltration Detention System
Highland, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
17790	26777	2/7/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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	Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe			
	Material Location	Description	Material Designation	Designation
8	Rigid or Flexible Pavement (if applicable)			
7	Road Base (if applicable			
A	Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.
6	Backfill	Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of ½" – 2 ½" diameter is recommended.	AASHTO M 145-A-1 or AASHTO M 43 - 3, 4	Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction"
3	Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57	For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation.
A	Geotextile Layer	None	None	Contech does not recommend geotextiles be placed under the invert of Infiltration systems due to the propensity for geotextiles to clog over time.
*	Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean.			

1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

FOUNDATION/BEDDING PREPARATION

2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

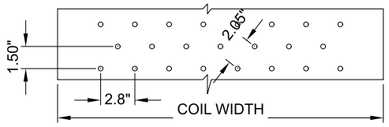
BACKFILL

MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

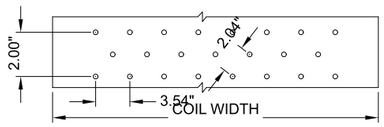
OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

2 2/3" x 1/2" CORRUGATION - STEEL AND ALUMINUM CMP EDGE SPACING EQUAL ON BOTH SIDES



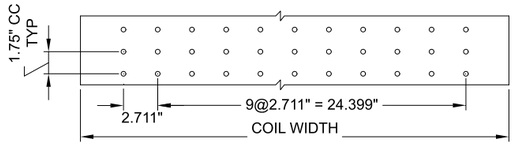
OPEN AREA = 3.76 SQ IN/SQ FT

3" x 1" CORRUGATION - STEEL AND ALUMINUM CMP (COIL PROVIDED FROM CONTECH LANTANA, FL PLANT)



OPEN AREA = 4.16 SQ IN/SQ FT

5" x 1" CORRUGATION - STEEL ONLY
EDGE SPACING EQUAL ON BOTH SIDES



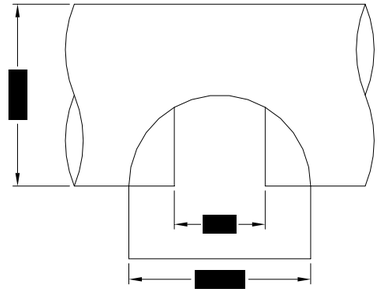
OPEN AREA = 3.33 SQ IN/SQ FT

NOTES:

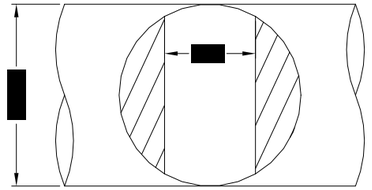
1. PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
2. PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
3. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. ALL HOLES ⌀3/8".

TYPICAL PERFORATION DETAIL

SCALE: N.T.S.



PLAN

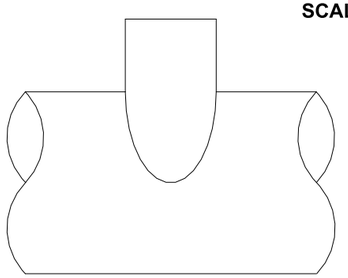


FRONT

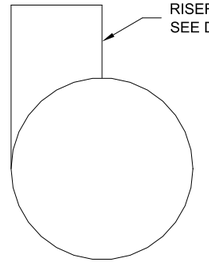
TYPICAL MANWAY DETAIL

SCALE: N.T.S.

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.



ELEVATION

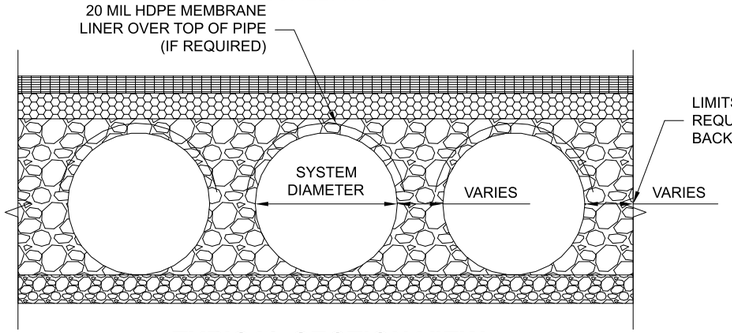


END

TYPICAL RISER DETAIL

SCALE: N.T.S.

NOTE:
LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.



TYPICAL SECTION VIEW

LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

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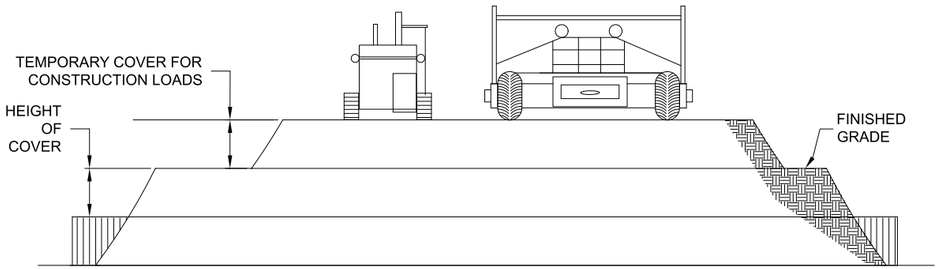
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CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO26777 Patriot - 5th at Central Industrial
Infiltration Detention System
Highland, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
17790	26777	2/7/2023
DESIGNED: DYO	DRAWN: DYO	
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SHEET NO.: 1		

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CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

PIPE
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

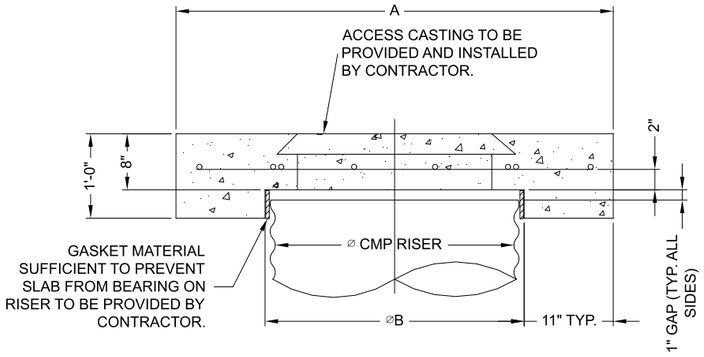
APPLICABLE POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

APPLICABLE
HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.
REQUIREMENTS
INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

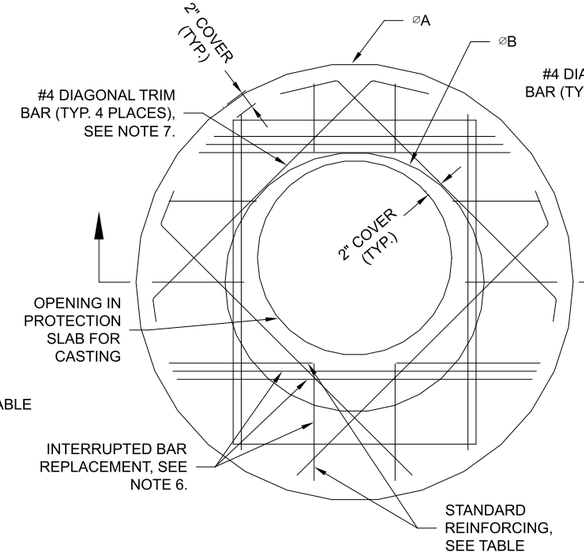
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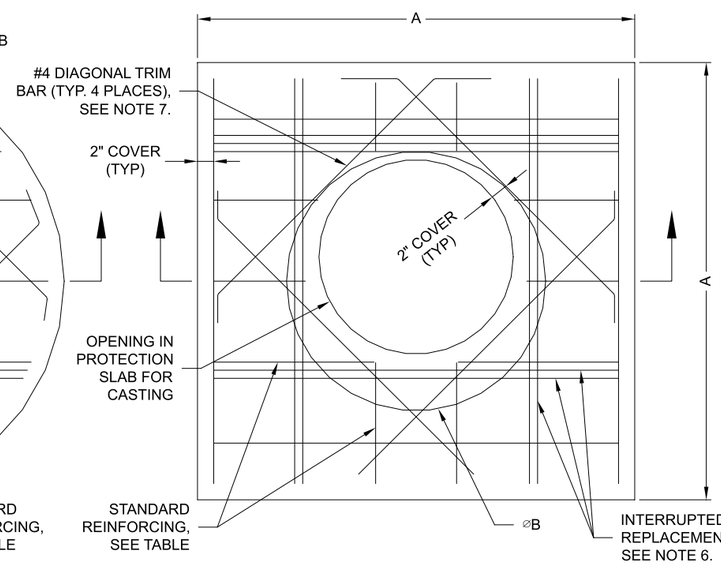
SECTION VIEW

REINFORCING TABLE				
⌀ CMP RISER	A	⌀ B	REINFORCING	**BEARING PRESSURE (PSF)
24"	⌀ 4' 4'X4'	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	⌀ 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	⌀ 5' 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,350
42"	⌀ 5'-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	⌀ 6' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

** ASSUMED SOIL BEARING CAPACITY



ROUND OPTION PLAN VIEW



SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

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CONTECH CMP DETENTION SYSTEMS
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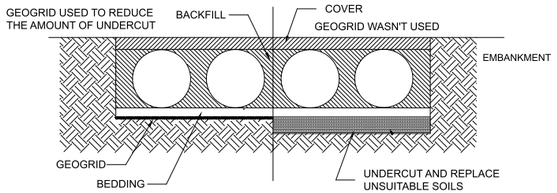
CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

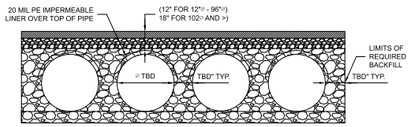


GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

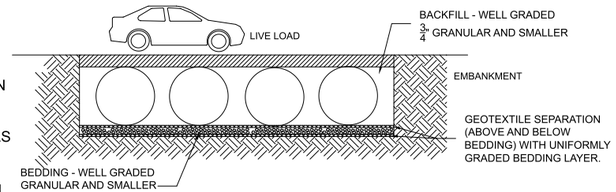
THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.



IN-SITU TRENCH WALL

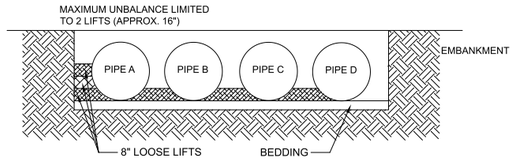
IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.



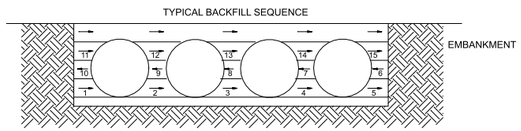
BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

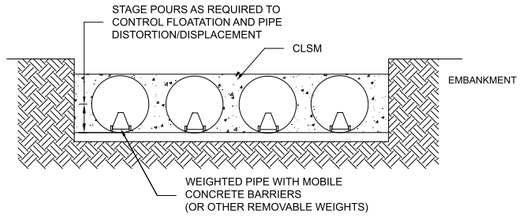


IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10-FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.



WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

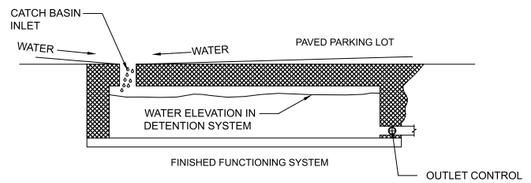


CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

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CONTECH CMP DETENTION SYSTEMS

CONTECH **DYODS** DRAWING

DYO26777 Patriot - 5th at Central Industrial
Infiltration Detention System
Highland, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
17790	26777	2/7/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		



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Corrugated Metal Pipe Design Guide

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Durability Design Guide for Drainage Products

Proper design of culverts and storm sewers requires structural, hydraulic and durability considerations. While most designers are comfortable with structural and hydraulic design, the mechanics of evaluating abrasion, corrosion and water chemistry to perform a durability design are not commonly found in most civil engineering handbooks.

The durability and service life of a drainage pipe installation is directly related to the environmental conditions encountered at the site and the type of materials and coatings from which the culvert is fabricated. Two principle causes of early failure in drainage pipe materials are corrosion and abrasion.

Service life can be affected by the corrosive action of the backfill in contact with the outside of a drainage pipe or more commonly by the corrosive and abrasive action of the flow in the invert of the drainage pipe. The design life analysis should include a check for both the water side and soil side environments to determine which is more critical— or which governs service life.

The potential for metal loss in the invert of a drainage pipe due to abrasive flows is often overlooked by designers and its effects are often mistaken for corrosion. An estimate for potential abrasion is required at each pipe location in order to determine the appropriate material and gage.

This manual is intended to guide specifiers through the mechanics of selecting appropriate drainage products to meet service life requirements. The information contained in the following pages is a composite of several national guidelines.



Using the Design Guide

The choice of material, gage and product type can be extremely important to service life. The following steps describe the procedure for selecting the appropriate drainage product, material and gage to meet a specific service life requirement.

Design Sequence

1. Select pipe or structure based on hydraulic and clearance requirements. Use Tables 4 and 5 as reference for size limits and hydraulic properties of all drainage products.
2. Use Height of Cover tables for the chosen pipe or structure to determine the material gage required for the specific loading condition.
3. Use Table 1 to select the appropriate material for the site-specific environmental conditions. Whenever possible, existing installations of drainage structures along the same water course offer the most reliable estimate of long-term performance for specific environment conditions. In many cases, there will be more than one material that is appropriate for the project environmental conditions. Generally speaking, the metal material types increase in price as you move from top down on Table 1. Please contact your local CONTECH Sales Representative for pricing.
4. Use Table 2 to determine which abrasion level most accurately describes the typical storm event (2 year storm). The expected stream velocity and associated abrasion conditions should be based on a typical flow and not a 10 or 50-year design flood.
5. Use Table 3 to determine whether the structural gage for the selected material is sufficient for the design service life. If the structural gage is greater than or equal to the gage required for a particular abrasion condition and service life, use the structural gage. Conversely, if the structural gage is less than the gage required for a particular abrasion condition and service life, use the gage required by Table 3.

Note:

Both Contech round pipe and pipe-arch are available with either helical or annular corrugations. Contech HEL-COR® pipe (helical corrugations) is furnished with continuous lock seams and annular re-rolled ends. Contech riveted pipe is furnished with annular corrugations only. The height of cover tables in this guide are helical corrugations only. Consult your Contech representative for Height of Cover tables on riveted pipe.

Table 1 — Recommended Environments

Material Type	Soil* and Water pH 3 4 5 6 7 8 9 10 11 12	Resistivity (ohm-cm) Minimum	Maximum
Galvanized Steel*		2000	8000
Aluminized Steel Type 2		1500	N/A
Polymer Coated		250	N/A
Aluminum Alloy		500	N/A

**Appropriate pH range for Galvanized Steel is 6.0 to 10*

Table 2 — FHWA Abrasion Guidelines

Abrasion Level	Abrasion Condition	Bed Load	Flow Velocity (fps)
1	Non- Abrasive	None	Minimal
2	Low Abrasion	Minor	< 5
3	Moderate Abrasion	Moderate	5 - 15
4	Severe Abrasion	Heavy	> 15

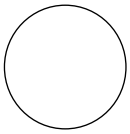
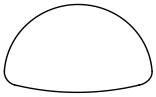
"Interim Direct Guidelines on Drainage Pipe Alternative Selection." FHWA, 2005.

Table 3 — Drainage Product Usage Guide[1]

Application	Culverts, Storm Drain, Cross Drain, Median Drain, Side Drain											
Roadway Classification	Rural	Minor	Major	Urban	Rural	Minor	Major	Urban	Rural	Minor	Major	Urban
Design Service Life	25	50	75	100	25	50	75	100	25	50	75	100
Abrasion Level	Abrasion Level 1 & 2				Abrasion Level 3				Abrasion Level 4			
CMP (1/2" & 1" deep corrugations, ULTRA FLO [3] & Smooth Cor [2,3])	Minimum gage required to meet design service life, assuming that structural design has been met.											
Galvanized (2 oz.)	*16*	*12*	*10*	*8[4]*	*14*	*10*	8	N/A	*14[5]*	*10[5]*	8[5]	N/A
Galvanized and Asphalt Coated	16	14	10	8	14	12	8	N/A	14[5]	12[5]	8[5]	N/A
Galv., Asphalt Coated and Paved Invert	16	16	14	10	16	14	12	8	14	12	10	N/A
Aluminized Type 2	16	16	16	14	14	14	14	12	14[6]	14[6]	14[6]	12[6]
Polymer Coated	16	16	16[8]	16[9]	16	16	16[8]	16[9]	14[7]	14[7]	14[7,8]	14[7,9]
Aluminum Alloy	16	16	16	16	14	14	14	14	14[5]	14[5]	14[5]	14[5]

1. *Based on Table 1 - Recommended Environments.*
2. *SmoothCor™ Steel Pipe combines a corrugated steel exterior shell with a hydraulically smooth interior liner.*
3. *Service life estimates for ULTRA FLO® and SmoothCor Pipe assume a storm sewer application. Storm sewers rarely achieve abrasion levels 3 or 4. For applications other than storm sewers or abrasion conditions above Abrasion Level 2, please contact your Contech Sales Representative for gage and coating recommendations.*
4. *Design service life for 8 gage galvanized is 97 years.*
5. *Invert protection to consist of velocity reduction structures.*
6. *Asphalt coated and paved invert or velocity reduction structures are needed.*
7. *Requires a field applied concrete paved invert with minimum thickness 1" above corrugation crests.*
8. *75 year service life for polymer coated is based on a pH range of 4-9 and resistivity greater than 750 ohm-cm.*
9. *100 year service life for polymer coated is based on a pH range of 5-9 and resistivity greater than 1500 ohm-cm.*

Table 4 - Product Dimensions

	Drainage Product	Common Uses	Size Limits* Minimum	Size Limits* Maximum	Manning's "n" Value
 Round Pipe	Corrugated Steel (1/2" deep corrugation)	Culverts, small bridges, storm water detention/ retention systems, conduits, tunnels, storm sewers.	12"	84"	0.011 - 0.021
	Corrugated Steel with Paved Invert (1/2" deep corrugation)		12"	84"	0.014 - 0.020
	Corrugated Steel (1" deep corrugation)		54"	144"	0.022 - 0.027
	Corrugated Steel with Paved Invert (1" deep corrugation)		54"	144"	0.019 - 0.023
	Corrugated Aluminum (1/2" deep corrugation)		12"	72"	0.011 - 0.021
	Corrugated Aluminum (1" deep corrugation)		30"	120"	0.023 - 0.027
	ULTRA FLO® Steel	Storm sewers, culverts, storm water detention/ retention systems.	18"	102"	0.012
	ULTRA FLO Aluminum		18"	84"	0.012
	SmoothCor™ Steel (1/2" deep corrugation)		18"	66"	0.012
	SmoothCor Steel (1" deep corrugation)		48"	126"	0.012
 Pipe-Arch	Corrugated Steel (1/2" deep corrugation)	Culverts, small bridges, storm water detention/ retention systems, conduits, tunnels, storm sewers.	17" x 13"	83" x 57"	0.011 - 0.021
	Corrugated Steel with Paved Invert (1/2" deep corrugation)		17" x 13"	83" x 57"	0.014 - 0.019
	Corrugated Steel (1" deep corrugation)		53" x 41"	142" x 91"	0.023 - 0.027
	Corrugated Steel with Paved Invert (1" deep corrugation)		53" x 41"	142" x 91"	0.019 - 0.022
	Corrugated Aluminum (1/2" deep corrugation)		17" x 13"	71" x 47"	0.011 - 0.021
	Corrugated Aluminum (1" deep corrugation)		60" x 46"	112" x 75"	0.023 - 0.027
	ULTRA FLO Steel	Storm sewers, culverts, storm water detention/ retention systems.	20" x 16"	66" x 51"	0.012
	ULTRA FLO Aluminum		20" x 16"	66" x 51"	0.012
	SmoothCor Steel (1/2" deep corrugation)		21" x 15"	77" x 52"	0.012
	SmoothCor Steel (1" deep corrugation)		53" x 41"	137" x 87"	0.012

* *For sizes outside of these limits, please contact your Contech representative.*

Table 5 — Corrugated Steel Pipe—Values of Coefficient of Roughness (n)

	All Diameters	1-1/2" x 1/4"		Helical* Corrugation Helical—2-2/3" x 1/2"						
2-2/3" x 1/2"	**Annular**	**8 in.**	**10 in.**	**12 in.**	**15 in.**	**18 in.**	**24 in.**	**36 in.**	**48 in.**	**60 in. +**
Unpaved	0.024	0.012	0.014	0.011	0.012	0.013	0.015	0.018	0.020	0.021
PAVED-INVERT	0.021						0.014	0.017	0.020	0.019
SmoothCor	N/A					0.012	0.012	0.012	0.012	0.012

		Helical*—3" x 1"							
3" x 1"	**Annular**	**36 in.**	**42 in.**	**48 in.**	**54 in.**	**60 in.**	**66 in.**	**72 in.**	**78 in. +**
Unpaved	0.027	0.022	0.022	0.023	0.023	0.024	0.025	0.026	0.027
PAVED-INVERT	0.023	0.019	0.019	0.020	0.020	0.021	0.022	0.022	0.023
SmoothCor	N/A			0.012	0.012	0.012	0.012	0.012	0.012

		Helical*—5" x 1"							
5" x 1"	**Annular**			**48 in.**	**54 in.**	**60 in.**	**66 in.**	**72 in.**	**78 in. +**
Unpaved	N/A			0.022	0.022	0.023	0.024	0.024	0.025
PAVED-INVERT	N/A			0.019	0.019	0.020	0.021	0.021	0.022
ULTRA FLO	N/A	**3/4" x 3/4" x 7-1/2"** All diameters n = 0.012							

* *Tests on helically corrugated pipe demonstrate a lower coefficient of roughness than for annularly corrugated steel pipe. Pipe-arches approximately have the same roughness characteristics as their equivalent round pipes.*

Table 6 - AASHTO Reference Specifications					
	Material Type	**Material**	**Pipe**	**Design***	**Installation***
Pipe & Pipe-Arch	**CMP (1/2" or 1" deep corrugations)**				
	Galvanized (2 oz.)	M218	M36	Section 12	Section 26
	Asphalt Coated	M190	M36	Section 12	Section 26
	Asphalt Coated and Paved Invert	M190	M36	Section 12	Section 26
	Aluminized Type 2	M274	M36	Section 12	Section 26
	Polymer Coated	M246	M36 & M245	Section 12	Section 26
	Aluminum Alloy	M197	M196	Section 12	Section 26
	ULTRA FLO (3/4" x 3/4" x 7-1/2" corrugation)				
	Galvanized (2 oz.)	M218	M36	Section 12	Section 26
	Aluminized Type 2	M274	M36	Section 12	Section 26
	Polymer Coated	M246	M36 & M245	Section 12	Section 26
	Aluminum Alloy	M197	M196	Section 12	Section 26
	SmoothCor				
	Polymer Coated	M246	M36 & M245	Section 12	Section 26

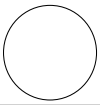
* *AASHTO LRFD Bridge Design Specification and AASHTO Standard Specification for Highway Bridges*



Corrugated Steel Pipe

Heights of Cover

2-2/3" x 1/2" Height of Cover Limits for Corrugated Steel Pipe



H 20 and H 25 Live Loads

Diameter or Span, Inches	Minimum Cover, Inches	Maximum Cover, Feet[2] Specified Thickness, Inches 0.052	0.064	0.079	0.109	0.138	0.168
6[10]	12	388	486				
8[10]		291	365				
10[10]		233	392				
12		197	248	310			
15		158	198	248			
18		131	165	206			
21		113	141	177	248		
24		98	124	155	217		
30			99	124	173		
36			83	103	145	186	
42			71	88	124	159	195
48			62	77	108	139	171
54				67	94	122	150
60					80	104	128
66					68	88	109
72						75	93
78							79
84	12						66

E 80 Live Loads

Diameter or Span, Inches	Minimum Cover, Inches	Maximum Cover, Feet[2] Specified Thickness, Inches 0.052	0.064	0.079	0.109	0.138	0.168
12	12	197	248	310			
15		158	198	248			
18		131	165	206			
21		113	141	177	248		
24		98	124	155	217		
30			99	124	173		
36			83	103	145	186	
42			71	88	124	159	195
48	12		62	77	108	139	171
54	18			67	94	122	150
60					80	104	128
66					68	88	109
72	18					75	93
78	24						79
84	24						66



H 20 and H 25 Live Loads, Pipe-Arch

Size Round Equivalent, Inches	Span x Rise, Inches	Minimum Structural Thickness, Inches	Minimum Cover, Inches	Maximum[7] Cover, Feet 2 Tons/Ft.² Corner Bearing Pressure
15	17 x 13	0.064	12	16
18	21 x 15	0.064		15
21	24 x 18	0.064		
24	28 x 20	0.064		
30	35x 24	0.064		
36	42 x 29	0.064		
42	49 x 33	0.064*		
48	57 x 38	0.064*		
54	64 x 43	0.079*		
60	71 x 47	0.109*		
66	77 x 52	0.109*		
72	83 x 57	0.138*	12	15

E 80 Live Loads, Pipe-Arch

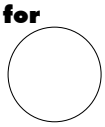
Size Round Equivalent, Inches	Span x Rise, Inches	Minimum Structural Thickness, Inches	Minimum Cover, Inches	Maximum[8] Cover, Feet 3 Tons/Ft.² Corner Bearing Pressure
15	17 x 13	0.079	24	22
18	21 x 15	0.079		
21	24 x 18	0.109		
24	28 x 20	0.109		
30	35 x 24	0.138		
36	42 x 29	0.138		
42	49 x 33	0.138*		
48	57 x 38	0.138*		
54	64 x 43	0.138*		
60	71 x 47	0.138*	24	22

* *These values are based on the AISI Flexibility Factor limit (0.0433 x 1.5) for pipe-arch.*

Heights of Cover Notes:

1. These tables are for lock-seam or welded-seam construction. They are not for riveted construction. Consult your Contech Sales Representative for Height of Cover tables on riveted pipe.
2. These values, where applicable, were calculated using a load factor of K=0.86 as adopted in the NCSPA CSP Design Manual, 2008.
3. The haunch areas of a pipe-arch are the most critical zone for backfilling. Extra care should be taken to provide good material and compaction to a point above the spring line.
4. E 80 minimum cover is measured from top of pipe to bottom of tie.
5. H 20 and H 25 minimum cover is measured from top of pipe to bottom of flexible pavement or top of rigid pavement.
6. The H 20 and H 25 pipe-arch tables are based on 2 tons per square foot corner bearing pressures.
7. The E 80 pipe-arch tables minimum and maximum covers are based on the corner bearing pressures shown. These values may increase or decrease with changes in allowable corner bearing pressures.
8. 0.052" is 18 gage.
   0.064" is 16 gage.
   0.079" is 14 gage.
   0.109" is 12 gage.
   0.138" is 10 gage.
   0.168" is 8 gage.
9. For construction loads, see Page 15.
10. 1-1/2" x 1/4" corrugation. H20, H25 and E80 loading.
11. SmoothCor has same Height of Cover properties as corrugated steel pipe. The exterior shell of SmoothCor is manufactured in either 2-2/3" x 1/2" or 3" x 1" corrugations; maximum exterior shell gage is 12.
12. Sewer gage (trench conditions) tables for corrugated steel pipe can be found in the AISI book "Modern Sewer Design," 4th Edition, 1999. These tables may reduce the minimum gage due to a higher flexibility factor allowed for a trench condition.

5" x 1" or 3" x 1" Height of Cover Limits for Corrugated Steel Pipe



H 20 and H 25 Live Loads

Diameter or Span, Inches	Minimum Cover Inches	Maximum Cover, Feet[2] Specified Thickness, Inches 0.064	0.079	0.109	0.138	0.168
54	12	56	70	98	127	155
60		50	63	88	114	139
66		46	57	80	103	127
72		42	52	74	95	116
78		39	48	68	87	107
84		36	45	63	81	99
90		33	42	59	76	93
96	12	31	39	55	71	87
102	18	29	37	52	67	82
108			35	49	63	77
114			32	45	58	72
120			30	42	54	66
126				39	50	61
132				36	46	58
138				33	43	53
144	18				39	49

Maximum cover heights shown are for 5" x 1".

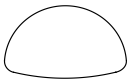
To obtain maximum cover for 3" x 1", increase these values by 12%

E 80 Live Loads

Diameter or Span, Inches	Minimum Cover Inches	Maximum Cover, Feet[2] Specified Thickness, Inches 0.064	0.079	0.109	0.138	0.168
54	18	56	70	98	127	155
60		50	63	88	114	139
66		46	57	80	103	127
72	18	42	52	74	95	116
78	24	39	48	68	87	107
84		36	45	63	81	99
90		33[1]	42	59	76	93
96	24	31[1]	39	55	71	87
102	30	29[1]	37	52	67	82
108			35	49	63	77
114			32[1]	45	58	72
120	30		30[1]	42	54	66
126	36			39	50	61
132				36	46	58
138				33[1]	43	53
144	36				39	49

Maximum cover heights shown are for 5" x 1".
To obtain maximum cover for 3" x 1", increase these values by 12%.
[1] These diameters in these gages require additional minimum cover.

5" x 1" Pipe-Arch Height of Cover Limits for Corrugated Steel Pipe



H 20 and H 25 Live Loads

Size: Equivalent Pipe Diameter	Size: Span x Rise Inches[3]	Minimum Specified Thickness, Inches*	Minimum Cover Inches	Maximum[7] Cover, Feet: 2 Tons/Ft.² Corner Bearing Pressure
72	81 x 59	0.109	18	21
78	87 x 63	0.109	18	20
84	95 x 67	0.109	18	20
90	103 x 71	0.109	18	20
96	112 x 75	0.109	21	20
102	117 x 79	0.109	21	19
108	128 x 83	0.109	24	19
114	137 x 87	0.109	24	19
120	142 x 91	0.138	24	19

Larger sizes are available in some areas of the United States. Check with your local Contech representative . Some minimum heights-of-cover for pipe-arches have been increased to take into account allowable "plus" tolerances on the manufactured rise.

E 80 Live Loads

Size: Equivalent Pipe Diameter	Size: Span x Rise Inches[3]	Minimum Specified Thickness, Inches*	Minimum Cover Inches	Maximum[8] Cover, Feet: 2 Tons/Ft.² Cover Bearing Pressure
72	81 x 59	0.109	30	21
78	87 x 63	0.109	30	18
84	95 x 67	0.109	30	18
90	103 x 71	0.109	36	18
96	112 x 75	0.109	36	18
102	117 x 79	0.109	36	17
108	128 x 83	0.109	42	17
114	137 x 87	0.109	42	17
120	142 x 91	0.138	42	17

* *Some 3" x 1" and 5" x 1" minimum gages shown for pipe-arch are due to manufacturing limitations.*

Heights of Cover Notes:

1. These tables are for lock-seam or welded-seam construction. They are not for riveted construction. Consult your Contech Sales Representative for Height of Cover tables on riveted pipe.
2. These values, where applicable, were calculated using a load factor of K=0.86 as adopted in the NCSPA CSP Design Manual, 2008.
3. The span and rise shown in these tables are nominal. Typically the actual rise that forms is greater than the specified nominal. This actual rise is within the tolerances as allowed by the AASHTO & ASTM specifications. The minimum covers shown are more conservative than required by the AASHTO and ASTM specifications to account for this anticipated increase in rise. Less cover height may be tolerated depending upon actual rise of supplied pipe arch.
4. The haunch areas of a pipe-arch are the most critical zone for backfilling. Extra care should be taken to provide good material and compaction to a point above the spring line.
5. E 80 minimum cover is measured from top of pipe to bottom of tie.
6. H 20 and H 25 minimum cover is measured from top of pipe to bottom of flexible pavement or top of rigid pavement.
7. The H 20 and H 25 pipe-arch tables are based on 2 tons per square foot corner bearing pressures.
8. The E 80 pipe-arch tables minimum and maximum covers are based on the corner bearing pressures shown. These values may increase or decrease with changes in allowable corner bearing pressures.
9. 0.052" is 18 gage.0.064" is 16 gage.
   0.079" is 14 gage.0.109" is 12 gage.
   0.138" is 10 gage.0.168" is 8 gage.
10. For construction loads, see Page 15.
11. SmoothCor has same Height of Cover properties as corrugated steel pipe. The exterior shell of SmoothCor is manufactured in either 2-$^{2}/_{3}$" x $^{1}/_{2}$" or 3"x1" corrugations; maximum exterior shell gage is 12.
12. Sewer gage (trench conditions) tables for corrugated steel pipe can be found in the AISI book "Modern Sewer Design," 4th Edition, 1999. These tables may reduce the minimum gage due to a higher flexibility factor allowed for a trench condition.

3" x 1" Pipe-Arch Height of Cover Limits for Corrugated Steel Pipe-Arch



H 20 and H 25 Live Loads

Size		Minimum		Maximum[7]
Equivalent Pipe Diameter	Span x Rise Inches	Specified Thickness, Inches*	Minimum Cover Inches	Cover, Feet 2 Tons/Ft.² Corner Bearing Pressure
48	53 x 41	0.079	12	25
54	60 x 46	0.079	15	25
60	66 x 51	0.079	15	25
66	73 x 55	0.079	18	24
72	81 x 59	0.079	18	21
78	87 x 63	0.079	18	20
84	95 x 67	0.079	18	20
90	103 x 71	0.079	18	20
96	112 x 75	0.079	21	20
102	117 x 79	0.109	21	19
108	128 x 83	0.109	24	19
114	137 x 87	0.109	24	19
120	142 x 91	0.138	24	19

Larger sizes are available in some areas of the United States. Check with your local Contech Sales Representative.

Some minimum heights-of-cover for pipe-arches have been increased to take into account allowable "plus" tolerances on the manufactured rise.

E 80 Live Loads

Size		Minimum		Maximum[8]
Equivalent Pipe Diameter	Span x Rise Inches	Specified Thickness, Inches*	Minimum Cover Inches	Cover, Feet 2 Tons/Ft.² Corner Bearing Pressure
48	53 x 41	0.079	24	25
54	60 x 46	0.079	24	25
60	66 x 51	0.079	24	25
66	73 x 55	0.079	30	24
72	81 x 59	0.079	30	21
78	87 x 63	0.079	30	18
84	95 x 67	0.079	30	18
90	103 x 71	0.079	36	18
96	112 x 75	0.079	36	18
102	117 x 79	0.109	36	17
108	128 x 83	0.109	42	17
114	137 x 87	0.109	42	17
120	142 x 91	0.138	42	17

* *Some 3" x 1" and 5" x 1" minimum gages shown for pipe-arch are due to manufacturing limitations.*

Heights of Cover Notes:

1. These tables are for lock-seam or welded-seam construction. They are not for riveted construction. Consult your Contech Sales Representative for Height of Cover tables on riveted pipe.
2. These values, where applicable, were calculated using K=0.86 as adopted in the NCSPA CSP Design Manual, 2008.
3. The span and rise shown in these tables are nominal. Typically the actual rise that forms is greater than the specified nominal. This actual rise is within the tolerances as allowed by the AASHTO & ASTM specifications. The minimum covers shown are more conservative than required by the AASHTO and ASTM specifications to account for this anticipated increase in rise. Less cover height may be tolerated depending upon actual rise of supplied pipe arch.
4. The haunch areas of a pipe-arch are the most critical zone for backfilling. Extra care should be taken to provide good material and compaction to a point above the spring line.
5. E 80 minimum cover is measured from top of pipe to bottom of tie.
6. H 20 and H 25 minimum cover is measured from top of pipe to bottom of flexible pavement or top of rigid pavement.
7. The H 20 and H 25 pipe-arch tables are based on 2 tons per square foot corner bearing pressures.
8. The E 80 pipe-arch tables minimum and maximum covers are based on the corner bearing pressures shown. These values may increase or decrease with changes in allowable corner bearing pressures.
9. 0.052" is 18 gage.
   0.064" is 16 gage.
   0.079" is 14 gage.
   0.109" is 12 gage.
   0.138" is 10 gage.
   0.168" is 8 gage.
10. For construction loads, see Page 15.
11. SmoothCor has same Height of Cover properties as corrugated steel pipe. The exterior shell of SmoothCor is manufactured in either 2-$^{2}/_{3}$" x $^{1}/_{2}$" or 3" x 1" corrugations; maximum exterior shell gage is 15.
12. Sewer gage (trench conditions) tables for corrugated steel pipe can be found in the AISI book "Modern Sewer Design," 4th Edition, 1999. These tables may reduce the minimum gage due to a higher flexibility factor allowed for a trench condition.



Approximate Weight (Pounds/Foot) Contech Corrugated Steel Pipe

(Estimated Average Weights—Not for Specification Use)

1-1/2″ x 1/4″ Corrugation			
Inside Diameter, in.	**Specified Thickness, in.**	**Galvanized & ALUMINIZED**	**Full Coated**
6	0.052	4	5
	0.064	5	6
8	0.052	5	6
	0.064	6	7
10	0.052	6	7
	0.064	7	8

Steel Thicknesses by Gage						
Gage	18	16	14	12	10	8
Thickness	.052	.064	.079	.109	.138	.168

2-2/3″ x 1/2″ Corrugation					
Inside Diameter, in.	Specified Thickness	Galvanized & ALUMINIZED	Full Coated	Coated & PAVED-INVERT	SmoothCor
12	0.052	8	10	13	
	0.064	10	12	15	
	0.079	12	14	17	
15	0.052	10	13	16	
	0.064	12	15	18	
	0.079	15	18	21	
18	0.052	12	16	19	
	0.064	15	19	22	25
	0.079	18	22	25	28
21	0.052	14	18	23	
	0.064	17	21	26	29
	0.079	21	25	30	33
	0.109	29	33	33	41
24	0.052	15	20	26	
	0.064	19	24	30	30
	0.079	24	29	35	38
	0.109	33	38	44	47
30	0.064	24	30	36	42
	0.079	30	36	42	48
	0.109	41	47	53	59
36	0.064	29	36	44	51
	0.079	36	43	51	58
	0.109	49	56	64	71
	0.138	62	69	77	
42	0.064	34	42	51	60
	0.079	42	50	59	68
	0.109	57	65	74	82
	0.138	72	80	89	
	0.168	88	96	105	
48	0.064	38	48	57	67
	0.079	48	58	67	77
	0.109	65	75	84	94
	0.138	82	92	101	
	0.168	100	110	119	
54	0.079	54	65	76	87
	0.109	73	84	95	106
	0.138	92	103	114	
	0.168	112	123	134	
60	0.109	81	92	106	117
	0.138	103	114	128	
	0.168	124	135	149	
66	0.109	89	101	117	129
	0.138	113	125	141	
	0.168	137	149	165	
72	0.138	123	137	154	(2)
	0.168	149	163	180	
78	0.168	161	177	194	(2)
84	0.168	173	190	208	(2)

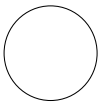
3″ x 1″ or 5″ x 1″ Corrugation					
Inside Diameter, in.	Specified Thickness	Galvanized & ALUMINIZED	Full Coated	Coated & PAVED-INVERT	SmoothCor
54	0.064	50	66	84	84
	0.079	61	77	95	95
	0.109	83	100	118	118
	0.138	106	123	140	
	0.168	129	146	163	
60	0.064	55	73	93	93
	0.079	67	86	105	105
	0.109	92	110	130	130
	0.138	118	136	156	
	0.168	143	161	181	
66	0.064	60	80	102	102
	0.079	74	94	116	116
	0.109	101	121	143	145
	0.138	129	149	171	
	0.168	157	177	199	
72	0.064	66	88	111	112
	0.079	81	102	126	127
	0.109	110	132	156	157
	0.138	140	162	186	
	0.168	171	193	217	
78	0.064	71	95	121	120
	0.079	87	111	137	136
	0.109	119	143	169	168
	0.138	152	176	202	
	0.168	185	209	235	
84	0.064	77	102	130	130
	0.079	94	119	147	147
	0.109	128	154	182	181
	0.138	164	189	217	
	0.168	199	224	253	
90	0.064	82	109	140	139
	0.079	100	127	158	157
	0.109	137	164	195	194
	0.138	175	202	233	
	0.168	213	240	271	
96	0.064	87	116	149	148
	0.079	107	136	169	168
	0.109	147	176	209	208
	0.138	188	217	250	
	0.168	228	257	290	
102	0.064	93	124	158	158
	0.079	114	145	179	179
	0.109	155	186	220	222
	0.138	198	229	263	
	0.168	241	272	306	
108	0.079	120	153	188	189
	0.109	165	198	233	235
	0.138	211	244	279	
	0.168	256	289	324	
114	0.079	127	162	199	200
	0.109	174	209	246	248
	0.138	222	257	294	
	0.168	271	306	343	
120	0.079	134	171	210	211
	0.109	183	220	259	260
	0.138	234	271	310	
	0.168	284	321	360	
126	0.109	195	233	274	276
	0.138	247	285	326	
	0.168	299	338	378	
132	0.109	204	244	287	289
	0.138	259	299	342	
	0.168	314	354	397	
138	0.109	213	255	300	300
	0.138	270	312	357	
	0.168	328	370	415	
144	0.138	282	326	373	
	0.168	344	388	435	(2)

1. *Weights for polymer coated pipe are 1% to 4% higher, varying by gage.*
2. *Please contact your Contech Sales Representative.*
3. *Weights listed in the 3″ x 1″ or 5″ x 1″ table are for 3″ x 1″ pipe. Weights for 5″ x 1″ are approximately 12% less than those used in this table, for metallic coated pipe.*

Corrugated Aluminum Pipe

Heights of Cover

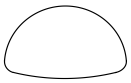
2-2/3″ X 1/2″ Height of Cover Limits for Corrugated Aluminum Pipe



HL 93 Live Load

Diameter or Span (In.)	Minimum Cover (In.)	Maximum Cover, (Ft.)[2] Equiv. Standard Gage 18	16	14	12	10	8[5]
6 [4]	12	197	247				
8 [4]		147	185				
10 [4]		119	148				
12			125	157			
15			100	125			
18			83	104			
21			71	89			
24			62	78	109		
27				69	97		
30				62	87		
36				51	73	94	
42					62	80	
48	12				54	70	85
54	15				48	62	76
60	15					52	64
66	18						52
72	18						43

2 2/3" x 1/2" Height of Cover Limits for Corrugated Aluminum Pipe-Arch



HL 93 Live Load

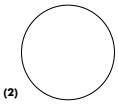
Round Pipe Dia. (Inches)	Size, (In.) Span x Rise	Minimum Gage	Minimum[3] Cover (Inches)	Maximum Cover, (Ft.) Aluminum Pipe-Arch[2] 2 Tons/Ft.² for Corner Bearing Pressures
15	17x13	16	12	13
18	21x15	16	12	12
21	24x18	16	12	12
24	28x20	14	12	12
30	35x24	14	12	12
36	42x29	12	12	12
42	49x33	12	15	12
48	57x38	10	15	12
54	64x43	10	18	12
60	71x47	8[5]	18	12

Notes:

1. *Height-of-cover is measured to top of rigid pavement or to bottom of flexible pavement.*
2. *Maximum cover meets AASHTO LRFD design criteria.*
3. *Minimum cover meets AASHTO and ASTM B 790 design criteria.*
4. *1 1/2″ x 1/4″ corrugation.*
5. *8-gage pipe has limited availability.*
6. *For construction loads, see page 15.*

Heights of Cover

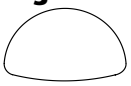
3″ x 1″ Height of Cover Limits for Corrugated Aluminum Pipe



HL 93 Live Load

Diameter or Span (In.)	Minimum[3] Cover (In.)	Maximum Cover, (Ft.) [2] Equiv. Standard Gage 16	14	12	10	8[6]
30	12	57	72	101	135	159
36		47	60	84	112	132
42		40	51	72	96	113
48	12	35	44	62	84	99
54	15	31	39	55	74	88
60	15	28	35	50	67	79
66	18	25	32	45	61	72
72	18	23	29	41	56	66
78	21		27	38	51	61
84	21			35	48	56
90	24			33	44	52
96	24			31	41	49
102	24				39	46
108	24				37	43
114	24					39
120	24					36

3″ x 1″ Height of Cover Limits for Corrugated Aluminum Pipe-Arch



HL 93 Live Load

Round Pipe Dia. (Inches)	Size, (In.) Span x Rise	Minimum Gage	Minimum[3] Cover (Inches)	Maximum Cover, (Ft.) Aluminum Pipe-Arch[2] 2 Tons/Ft.² for Corner Bearing Pressures
54	60x46	14	15	20
60	66x51	14	18	20
66	73x55	14	21	20
72	81x59	12	21	16
78[4]	87x63	12	24	16
84[4]	95x67	12	24	16
90[4]	103x71	10	24	16
96[4]	112x75	8[5]	24	16

Notes:

1. *Height-of-cover is measured to top of rigid pavement or to bottom of flexible pavement.*
2. *Maximum cover meets AASHTO LRFD design criteria.*
3. *Minimum cover meets ASTM B 790 design criteria.*
4. *Limited availability on these sizes.*
5. *8-gage pipe has limited availability.*
6. *For construction loads, see page 15.*

Approximate Weight/Foot
Contech Corrugated Aluminum Pipe

(Estimated Average Weights—Not for Specification Use)

2 2/3″ x 1/2″ Corrugation Aluminum Pipe

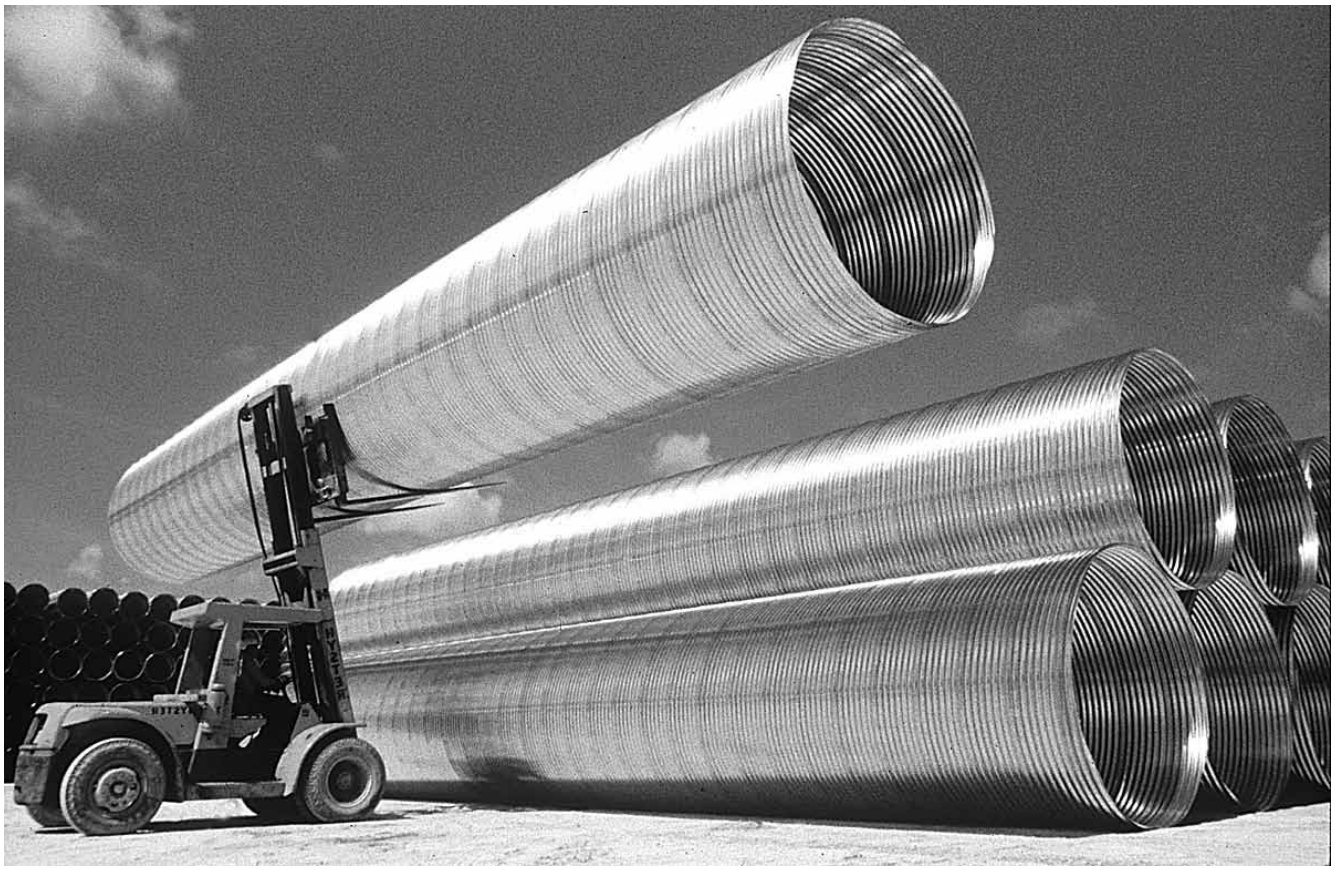
Diameter or Span (Inches)	Weight (Lb./Lineal Ft.) Equiv. Standard Gage					
	(.048) 18	(.060) 16	(.075) 14	(.105) 12	(.135) 10	(.164) 8[3]
6 [2]	1.3	1.6				
8 [2]	1.7	2.1				
10 [2]	2.1	2.6				
12		3.2	4.0			
15		4.0	4.9			
18		4.8	5.9			
21		5.6	6.9			
24		6.3	7.9	10.8		
27			8.8	12.2		
30			9.8	13.5		
36			11.8	16.3	20.7	
42				19.0	24.2	
48				21.7	27.6	33.5
54				24.4	31.1	37.7
60					34.6	41.9
66						46.0
72						50.1

3″ x 1″ Corrugation Aluminum Pipe

Diameter or Span (Inches)	Weight (Lb./Lineal Ft.) Equiv. Standard Gage				
	(.060) 16	(.075) 14	(.105) 12	(.135) 10	(.164) 8[3]
30	9.3	11.5	15.8	20.2	
36	11.1	13.7	18.9	24.1	
42	12.9	16.0	22.0	28.0	
48	14.7	18.2	25.1	32.0	38.8
54	16.5	20.5	28.2	35.9	43.6
60	18.3	22.7	31.3	40.0	48.3
66	20.2	24.9	34.3	43.7	53.0
72	22.0	27.1	37.4	47.6	57.8
78		29.3	40.4	51.5	62.5
84			43.5	55.4	67.2
90			46.6	59.3	71.9
96			49.6	63.2	76.7
102				66.6	80.8
108				71.0	86.1
114					90.9
120					95.6

Notes:

1. *Helical lockseam pipe only. Annular riveted pipe weights will be higher.*
2. *1 ½″ x ¼″ Corrugation.*
3. *8-gage pipe has limited availability.*



ULTRA FLO®

Heights of Cover

Galvanized, ALUMINIZED STEEL Type 2 or Polymer Coated Steel** ULTRA FLO H 20 and H 25 Live Load

Diameter (Inches)	Minimum/Maximum Cover (Feet) Specified Thickness and Gage (0.064) 16	(0.079) 14	(0.109) 12	(0.138) 10
18	1.0/108	1.0/151		
21	1.0/93	1.0/130	1.0/216	
24	1.0/81	1.0/113	1.0/189	
30	1.0/65	1.0/91	1.0/151	
36	1.0/54	1.0/75	1.0/126	
42	1.0/46	1.0/65	1.0/108	
48	1.0/40	1.0/56	1.0/94	1.0/137
54	1.25/36	1.25/50	1.0/84	1.0/122
60	1.25*/32*	1.25/45	1.0/75	1.0/109
66		1.5/41	1.25/68	1.25/99
72		1.5*/37*	1.25/63	1.25/91
78		1.75*/34*	1.5/58	1.5/84
84			1.75/54	1.75/78
90			2.0*/50*	2.0/73
96			2.0*/47*	2.0/68
102			2.5*/43*	2.5/61
108				2.5*/54*
114				2.5*/49*
120				2.5*/43*

Galvanized, ALUMINIZED STEEL Type 2 or **Polymer Coated** Steel** ULTRA FLO E 80 Live Load

Diameter (Inches)	(0.064) 16	(0.079) 14	(0.109) 12	(0.138) 10
18	1.0 / 93	1.0 / 130		
21	1.0 / 79	1.0 / 111	1.0 / 186	
24	1.0 / 69	1.0 / 97	1.0 / 162	
30	1.0 / 55	1.0 / 78	1.0 / 130	
36	1.5 / 46	1.25 / 65	1.0 / 108	
42	1.5 / 39	1.5 / 55	1.25 / 93	
48	2.0 / 34	1.75 / 48	1.5 / 81	1.5 / 118
54	3.0* / 28*	2.0 / 43	1.5 / 72	1.5 / 104
60		2.0 / 39	1.75 / 65	1.75 / 94
66		2.5* / 35*	2.0 / 58	2.0 / 85
72			2.0 / 49	2.0 / 78
78			2.5 / 42	2.5 / 72
84			2.75* / 35*	2.5 / 67
90				2.5 / 62
96				2.5* / 58*
102				3.0* / 52*

Notes:

1. The tables for Steel H 20 and H 25 loading are based on the NCSPA CSP Design Manual, 2008 and were calculated using a load factor of K=0.86. The tables for Steel E 80 loading are based on the AREMA Manual. The tables for Aluminum HL 93 loading are based on AAS-HTO LRFD Design Criteria.
2. The haunch areas of a pipe-arch are the most critical zone for backfilling. Extra care should be taken to provide good material and compaction to a point above the spring line.
3. E 80 minimum cover is measured from top of pipe to bottom of tie.
4. H 20, H 25 and HL 93 minimum cover is measured from top of pipe to bottom of flexible pavement or top of rigid pavement.
5. The H 20, H 25 and HL 93 pipe-arch tables are based on 2 tons per square foot corner bearing pressures.
6. The E 80 pipe-arch tables minimum and maximum covers are based on 3 tons per square foot corner bearing pressures shown.
7. Larger size pipe-arches may be available on special order.
8. M.L. (Heavier gage is required to prevent crimping at the haunches.)
9. For construction loads, see Page 15.
10. Sewer gage (trench conditions) tables for corrugated steel pipe can be found in the AISI book "Modern Sewer Design," 4th Edition, 1999. These tables may reduce the minimum gage due to a higher flexibility factor allowed for a trench condition.

Galvanized, ALUMINIZED STEEL Type 2 or **Polymer Coated** Steel** ULTRA FLO Pipe-Arch H 20 and H 25 Live Load

Equiv. Pipe Dia. (Inches)	Span (Inches)	Rise (Inches)	Minimum/Maximum Cover (Feet) Specified Thickness and Gage (0.064) 16	(0.079) 14	(0.109) 12
18	20	16	1.0/16		
21	23	19	1.0/15		
24	27	21	1.0/13		
30	33	26	1.0/13	1.0/13	
36	40	31	1.0/13	1.0/13	
42	46	36	M.L.[8]	M.L.[8]	1.0/13
48	53	41	M.L.[8]	M.L.[8]	1.25/13
54	60	46	M.L.[8]	M.L.[8]	1.25/13
60	66	51	M.L.[8]	M.L.[8]	1.25/13

Galvanized, ALUMINIZED STEEL Type 2 or **Polymer Coated** Steel** ULTRA FLO Pipe-Arch E 80 Live Load

Span x Rise (Inches)	Round Equivalent	Minimum Cover (Inches)	Minimum Gage	Max Cover (Feet)
20x16	18	24	16	22
23x19	21	24	16	21
27x21	24	24	16	18
33x26	30	24	16	18
40x31	36	24	16	17
46x36	42	24	12	18
53x41	48	24	12	18
60x46	54	24	12	18
66x51	60	24	12	18



ULTRA FLO can be manufactured from polymer coated steel for added durability.

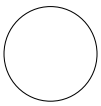
11. All heights of cover are based on trench conditions. If embankment conditions exist, there may be restriction on gages for the large diameters. Your Contech Sales Representative can provide further guidance for a project in embankment conditions.
12. All steel ULTRA FLO is installed in accordance with ASTM A798 "Installing Factory-Made Corrugated Steel Pipe for Sewers and Other Applications."

* *These sizes and gage combinations are installed in accordance with ASTM A796 paragraphs 18.2.3 and ASTM A798. For aluminum ULTRA FLO refer to ASTM B790 and B788.*

** *Contact your local Contech representative for more specific information on Polymer Coated ULTRA FLO for gages 12 and 10.*

Heights of Cover

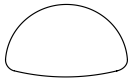
Aluminum ULTRA FLO HL 93 Live Load



Diameter (Inches)	Minimum/Maximum Cover (Feet) Specified Thickness and Gage (0.060) 16	(0.075) 14	(0.105) 12	(0.135) 10
18	1.0/43	1.0/61		
21	1.0/38	1.0/52	1.0/84	
24	1.0/33	1.0/45	1.0/73	
30	1.0/26	1.25/36	1.25/58	
36	1.5*/21*	1.50/30	1.5/49	1.5/69
42		1.75*/25*	1.75/41	1.75/59
48			2.0/36	2.0/51
54			2.0/32	2.0/46
60			2.0*/29*	2.0/41
66				2.0/37
72				2.5*/34*

See previous page for height of cover notes.

Aluminum ULTRA FLO Pipe-Arch HL 93 Live Load



Equiv. Pipe Dia. (Inches)	Span (Inches)	Rise (Inches)	Minimum/Maximum Cover (Feet) Specified Thickness and Gage (0.060) 16	(0.075) 14	(0.105) 12	(0.135) 10
18	20	16	1.0/16			
21	23	19	1.0/15			
24	27	21	1.25/13	1.25/13		
30	33	26	1.5/13	1.5/13	1.5/13	
36	40	31		1.75/13	1.75/13	
42	46	36			2.0/13	2.0/13
48	53	41			2.0/13	2.0/13
54	60	46			2.0*/13*	2.0/13
60	66	51				2.0/13

Approximate Weight/Foot Contech ULTRA FLO Pipe

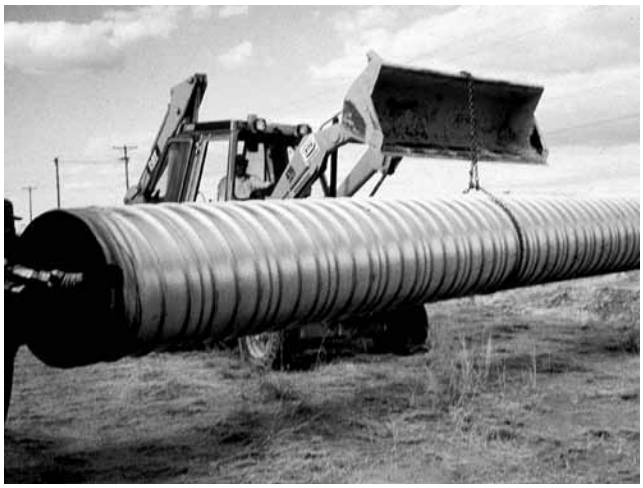
Handling Weight for **ALUMINIZED STEEL Type 2** or **Galvanized Steel** ULTRA FLO

Diameter (Inches)	Weight (Pounds/Lineal Foot) Specified Thickness and Gage (0.064) 16	(0.079) 14	(0.109) 12	(0.138) 10
18	15	18		
21	17	21	29	
24	19	24	36	
30	24	30	42	
36	29	36	50	
42	33	42	58	
48	38	48	66	80
54	45	54	75	90
60	48	60	83	99
66		66	91	109
72		72	99	119
78		78	108	129
84			116	139
90			124	149
96			132	158
102			141	168
108				175
114				196
120				206

Weights for polymer coated pipe are 1% to 4% higher, varying by gage.

Handling Weight for **ALUMINUM** ULTRA FLO

Diameter (Inches)	Weight (Pounds/Lineal Foot) Specified Thickness and Gage (0.060) 16	(0.075) 14	(0.105) 12	(0.135) 10
18	5	6		
21	6	8	11	
24	7	9	13	
30	9	11	15	
36	11	13	18	23
42	12	15	21	26
48		17	24	30
54		19	27	34
60			30	37
66			33	41
72			36	45
78				49
84				52



ULTRA FLO is available in long lengths. And, its light weight allows it to be unloaded and handled with small equipment.



Reduced excavation because of ULTRA FLO's smaller outside diameter.

Installation Corrugated Metal Pipe

Overview
Satisfactory site preparation, trench excavation, bedding and backfill operations are essential to develop the strength of any flexible conduit. In order to obtain proper strength while preventing settlement, it is necessary that the soil envelope around the pipe be of good granular material, properly placed and carefully compacted.

Bedding
Bedding preparation is critical to both pipe performance and service life. The bed should be constructed to uniform line and grade to avoid distortions that may create undesirable stresses in the pipe and/or rapid deterioration of the roadway. The bed should be free of rock formations, protruding stones, frozen lumps, roots and other foreign matter that may cause unequal settlement.

Placing the pipe
Corrugated metal pipe weighs much less than other commonly used drainage structures. This is due to the efficient strength of the metal, further improved with carefully designed and formed corrugations. Even the heaviest sections of Contech pipe can be handled with relatively light equipment compared with equipment required for much heavier reinforced concrete pipe.

Backfill
Satisfactory backfill material, proper placement and compaction are key factors in obtaining maximum strength and stability. Backfill should be a well-graded granular material and should be free of large stones, frozen lumps and other debris.

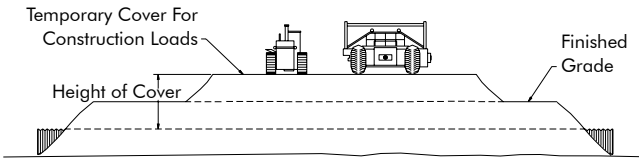
Backfill materials should be placed in layers about six inches deep, deposited alternately on opposite sides of the pipe. Each layer should be compacted carefully. Select backfill is placed and compacted until minimum cover height is reached, at which point, standard road embankment backfill procedures are used.

Installation References
For more information, see AASHTO Bridge Construction Specification Section 26, the Installation Manual of the National Corrugated Steel Pipe Association, ASTM A798 for steel and ASTM B788 for aluminum ULTRA FLO.

Additional Considerations for ULTRA FLO Installations
Bedding and Backfill
Typical ULTRA FLO installation requirements are the same as for any other corrugated metal pipe installed in a trench. Bedding and backfill materials for ULTRA FLO follow the requirements of the CMP installation specifications mentioned above, and must be free from stones, frozen lumps or other debris. When ASTM A796 (steel) or B790 (aluminum) designs are to be followed for condition III requirements, indicated by asterisk (*) in the tables on page 13 and 14, use clean, easily compacted granular backfill materials.

Embankment Conditions
ULTRA FLO is a superior CMP storm sewer product that is normally installed in a trench condition. In those unusual embankment installation conditions, pipe sizes and gages may be restricted. Your Contech Sales Representative can provide you with further guidance.

Construction Loads
For temporary construction vehicle loads, an extra amount of compacted cover may be required over the top of the pipe. The Height of Cover shall meet minimum requirements shown in the table below. The use of heavy construction equipment necessitates greater protection for the pipe than finished grade cover minimums for normal highway traffic.



Min. Height of Cover Requirements for Construction Loads On Corrugated Steel Pipe*

Diameter/ Span, (Inches)	Minimum Cover (feet) for Indicated Axle Loads (kips)			
	18-50	50-75	75-110	110-150
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

Min. Height of Cover Requirements for Construction Loads On Corrugated Aluminum Pipe*

Diameter/ Span (Inches)	Axle Load (Kips)			
	18-50	50-75	75-110	110-150
12-42	3.0′	3.5′	4.0′	4.0′
48-72	4.0′	4.0′	5.0′	5.5′
78-120	4.0′	5.0′	5.5′	5.5′

Min. Height of Cover Requirements for Construction Loads On ULTRA FLO Pipe*

Diameter/ Span (Inches)	Axle Load (Kips)			
	18-50	50-75	75-110	110-150
	Steel 3/4″ x 3/4″ x 7-1/2″			
15-42	2.0'	2.5'	3.0'	3.0'
48-72	3.0'	3.0'	3.5'	4.0'
78-108	3.0'	3.5'	4.0'	4.5'
	Aluminum 3/4″ x 3/4″ x 7-1/2″			
15-42	3.0'	3.5'	4.0'	4.0'

* Minimum cover may vary depending on local conditions. The contractor must provide the additional cover required to avoid damage to the pipe. Minimum cover is measured from the top of the pipe to the top of the maintained construction roadway surface.

SmoothCor™ Pipe

Excellent Hydraulics, Long Lengths and Easy Installation

Corrugated Steel Shell

SmoothCor pipe has a smooth interior steel liner that provides a Manning's "n" of 0.012. Its rugged, corrugated steel shell supplies the structural strength to outperform rigid pipe. SmoothCor pipe is both the economical and performance alternate to concrete.

Superior hydraulics

SmoothCor, with its smooth interior surface, is hydraulically superior to conventional corrugated steel pipe and with fewer joints and better interior surface, outperforms reinforced concrete pipe.

SmoothCor, with its long lengths, light weight and beam strength, is superior to concrete pipe in many difficult situations such as poor soils, poor subsurface drainage conditions, steep slopes and high fills. SmoothCor should be specified as an alternate under normal site conditions, and specified exclusively under very difficult situations that demand the strength of CSP with positive joints and a hydraulically efficient smooth liner.

Two Pipe Shapes

In addition to full-round pipe, SmoothCor comes in a pipe-arch shape for limited headroom conditions. The low, wide pipe-arch design distributes the flow area horizontally, enabling it to be installed with lower head room than a round pipe.

Reference specifications

Material	Polymer Coated	ASTM A 929 AASHTO M246 ASTM A 742
Pipe	Polymer	AASHTO M245 ASTM A 762 & A 760
Design	Steel Pipe	AASHTO Section 12 ASTM A 796
Installation	Steel Pipe	AASHTO Section 26 ASTM A 798

Structural Design

SmoothCor is lined with either 18 or 20 gage steel. Contech has taken a conservative approach to the Height of Cover. The maximum heights-of-cover are based on the shell thickness with no additional structural allowance for the liner as provided for in the AASHTO and ASTM design specifications. Using this approach, the Height of Cover tables for 2 2/3" x 1/2" and 3"x1" steel corrugations can be used for SmoothCor.

Diameters

SmoothCor is available in diameters ranging from 18 inches to 66 inches in 2 2/3" x 1/2" corrugation. The 3" x 1" corrugation is available in diameters of 48 inches to 126 inches.

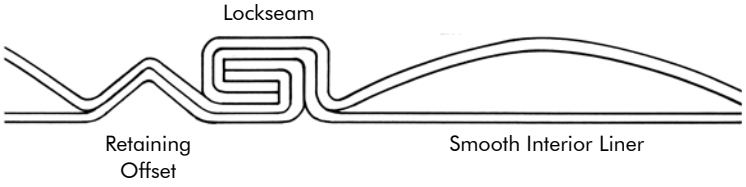
Pipe-arch sizes range from 21" x 15" through 77" x 52" for 2 2/3" x 1/2" corrugations, and 53" x 41" through 137" x 87" for 3"x1" corrugations.

Materials

SmoothCor is available with Dow's TRENCHCOAT® that allows the engineer to design for long service life. TRENCHCOAT is a tough, heavy-gage polymer film laminated to both sides of the steel coil, providing a barrier to corrosion and mild abrasion. TRENCHCOAT is particularly effective for protection in corrosive soils.

Fittings

SmoothCor can be fabricated into any type of structure including tees, elbows, laterals, catch basins, manifolds and reducers. Pre-fabricated fittings are more economical and have superior hydraulic characteristics when compared to concrete structures.





QUICK STAB® Joint

Save Time and Money With Faster Pipe Bell and Spigot Coupling

The Contech QUICK STAB Bell and Spigot joint speeds installation of corrugated metal pipe (CMP), reducing your costs. With the QUICK STAB coupling system, installation of CMP storm sewers and culverts has never been easier or faster.

The QUICK STAB joint creates a bell and spigot joining system with the bell only 1-1/2" larger than the pipe's O.D. Assembled at the factory, the QUICK STAB bell is shipped to the job site ready for installation. The only field operation is placing a special fluted gasket onto the spigot end of the pipe, applying lubricant and pushing it into the bell end of the preceding pipe. Without bands, bolts and wrenches to work and worry with, you can join pipe segments 50% to 90% faster—saving time, money and aggravation.

Soil Tight Joint

Contech's QUICK STAB joint provides the same soil tightness as conventional CMP bands. Each QUICK STAB joint uses a double sealing fluted gasket to seal the spigot against the bell. A flat gasket is installed at the plant between the pipe and the corrugated end of the bell. With the deep bell, you gain maximum soil tightness with minimal installation effort.

Wide Variety of Coatings and Materials

- Plain galvanized
- Aluminized Steel Type 2
- Aluminum
- Polymeric coated

Four Times Faster Installation Than Concrete

The QUICK STAB's bell and spigot joining system allows pipe segments to be joined quicker than reinforced concrete pipe. Next, add in Contech's corrugated metal pipe's length advantage—each segment is four times longer than standard concrete pipe lengths. That means fewer joints and faster installation—up to four times faster! Plus, with the bell only 1-1/2" larger than the pipe, trench excavation is considerably less compared with concrete—again, saving time and money.

Field Installation Instructions

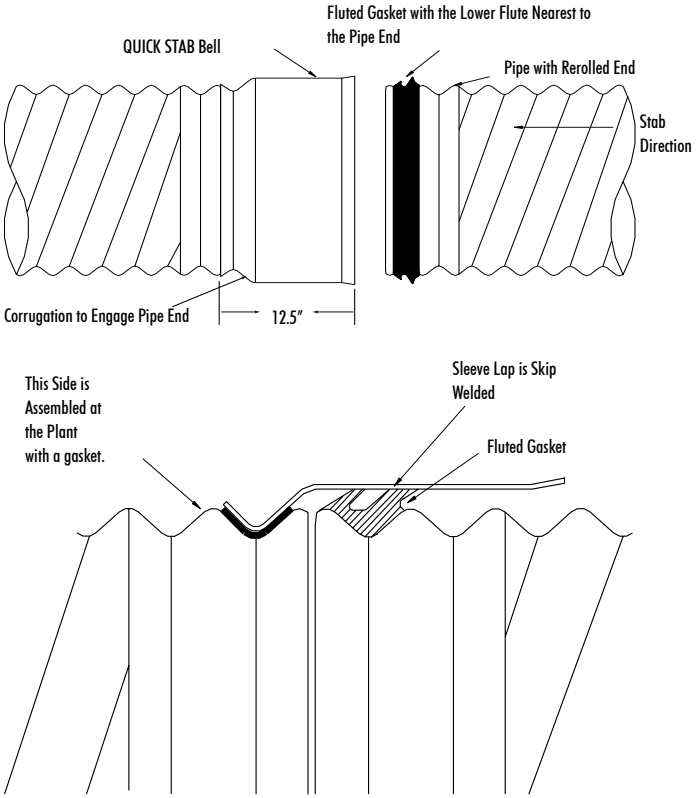
The spigot and bell ends must be cleaned of any dirt or debris prior to assembly. The fluted gasket shall be placed in the first corrugation with the lower flute nearest the end of the pipe. The bell & gasket shall be thoroughly lubed just before stabbing in the bell. Do not place hands, fingers, or any other body parts between bell and spigot during assembly. If it is necessary to pull the joint apart, the bell, spigot and gasket shall be inspected and cleaned of any dirt or debris prior to re-stabbing.

Corrugated Metal Pipe Bell and Spigot Joint Specification

The joints shall be of such design and the ends of the corrugated metal pipe sections so formed that the pipe can be laid together to make a continuous line of pipe. The joint shall be made from the same material as the pipe and shall prevent infiltration of the fill material.



Bell and Spigot Coupling System for CMP



The Bell and Spigot joint is available on ULTRA FLO and 2-2/3" x 1/2" corrugation in 15" through 60" diameter.

End Sections

Easily installed, easily maintained culvert end treatments for corrugated metal pipe, reinforced concrete pipe and HDPE Pipe

Contech End Sections provide a practical, economical and hydraulically superior method of finishing a variety of culvert materials.

The lightweight, flexible metal construction of Contech End Sections creates an attractive, durable and erosion-preventing treatment for all sizes of culvert inlets and outlets. They can be used with corrugated metal pipe having either annular or helical corrugations, and both reinforced concrete and plastic pipes. End sections can be salvaged when lengthening or relocating the culvert.

Standard End Sections are fabricated from pregalvanized steel. For added corrosion resistance, Aluminized Type II or Aluminum End Sections are available in smaller sizes. Special End Sections for multiple pipe installations may be available on a specific inquiry basis.

Better hydraulics

Flow characteristics are greatly improved by the exacting design of Contech End Sections. Scour and sedimentation conditions are improved, and headwater depth can be better controlled. Culverts aligned with the stream flow and finished with Contech End Sections generally require no additional hydraulic controls.

Improved appearance

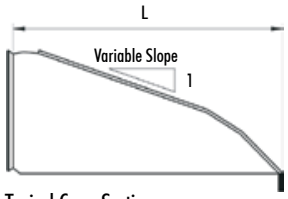
Contech End Sections blend well with the surroundings. The tapered sides of an End Section merge with slope design to improve roadside appearance. Unsightly weeds and debris collection at the culvert end are reduced.

Economical installation

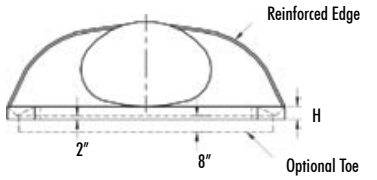
Lightweight equipment and simple crew instructions result in smooth and easy installation. Contech End Sections are easily joined to culvert barrels, forming a continuous, one-piece structure. For easiest installation, End Sections should be installed at the same time as the culvert. Installation is completed by tamping soil around the End Section.

Low maintenance

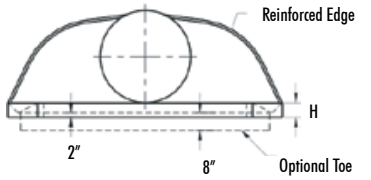
Contech End Sections reduce maintenance expense because their tapered design promotes easier mowing and snow removal. There is no obstruction to hamper weed cutting.



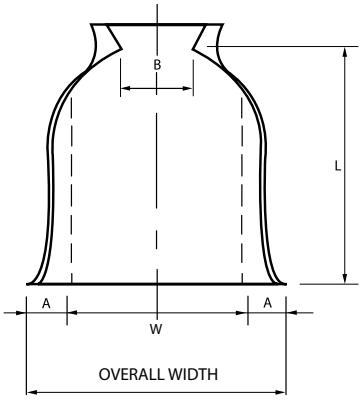
Typical Cross Section



Elevation



Elevation



Plan

Notes for all End Sections:

1. All three-piece bodies to have 12-gage sides and 10-gage center panels. Multiple panel bodies to have lap seams which are to be tightly joined by galvanized rivets or bolts.
2. For 60″ through 84″ sizes, reinforced edges are supplemented with stiffener angles. The angles are attached by galvanized nuts and bolts. For the 66″ and 72″ equivalent round pipe-arch sizes, reinforced edges are supplemented by angles. The angles are attached by galvanized nuts and bolts.
3. Angle reinforcements are placed under the center panel seams on the 66″ and 72″ equivalent round pipe-arch sizes.
4. Toe plate is available as an accessory, when specified on the order, and will be same gage as the End Section.
5. Stiffener angles, angle reinforcement, and toe plates are the same base metal as end section body.
6. **End sections with 6:1 and 4:1 slopes are available in 12″ through 24″ diameters.**
7. Actual dimensions may vary slightly.
8. During manufacturing, a slight invert slope may result along the length of the end section to be accommodated in the field.

End Sections for Round Pipe (2-2/3″ x 1/2″, 3″ x 1″ and 5″ x 1″)

		Approximate Dimensions, Inches [7]					
Pipe Diameter (Inches)	**Gage**	**A (+/- 1") (Inches)**	**B (Max) (Inches)**	**H (Min) (Inches)**	**L (+/-2") (Inches)**	**W (+/- 2") (Inches)**	**Overall Width (+/- 4") (Inches)**
12	16	6	6	6	21	24	36
15	16	7	8	6	26	30	44
18	16	8	10	6	31	36	52
21	16	9	12	6	36	42	60
24	16	10	13	6	41	48	68
30	14	12	16	8	51	60	84
36	14	14	19	9	60	72	100
42	12	16	22	11	69	84	116
48	12	18	27	12	78	90	126
54	12	18	30	12	84	102	138
60	12/10	18	33	12	87	114	150
66	12/10	18	36	12	87	120	156
72	12/10	18	39	12	87	126	162
78	12/10	18	42	12	87	132	168
84	12/10	18	45	12	87	138	174

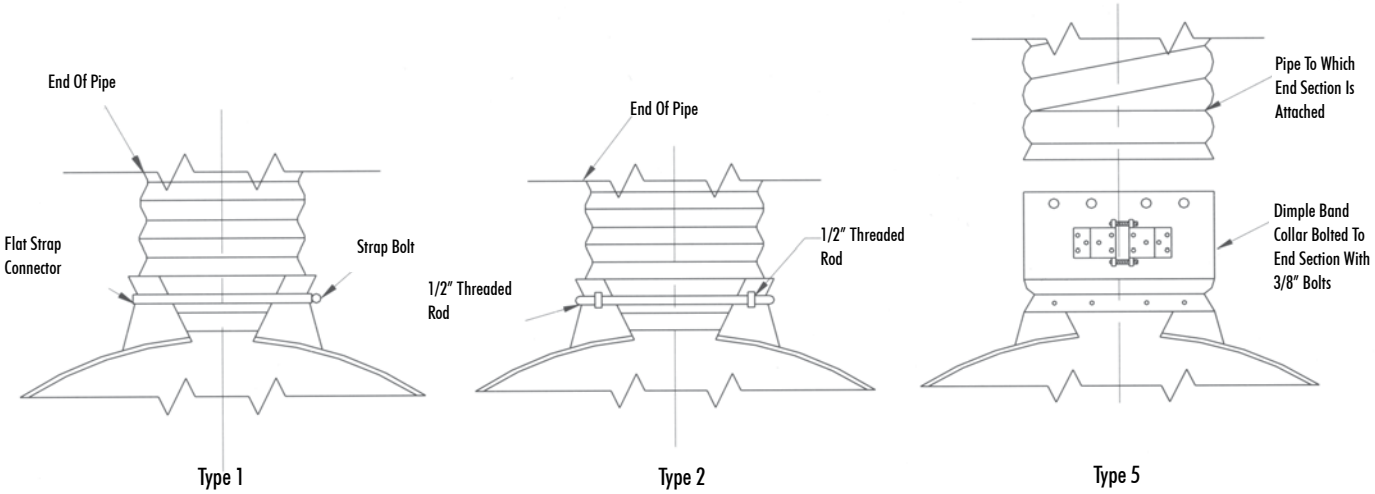
End Sections for Pipe-Arch (2-2/3″ x 1/2″)

			Approximate Dimensions, Inches [7]					
Span/Rise	**Equiv. Round (Inches)**	**Gage**	**A (+/- 1") (Inches)**	**B (Max) (Inches)**	**H (+/- 1") (Inches)**	**L (+/- 2") (Inches)**	**W (+/- 2″) (Inches)**	**Overall Width (+/- 4") (Inches)**
17″x13″	15	16	7	9	6	19	30	44
21″x15″	18	16	7	10	6	23	36	50
24″x18″	21	16	8	12	6	28	42	58
28″x20″	24	16	9	14	6	32	48	66
35″x24″	30	14	10	16	6	39	60	80
42″x29″	36	14	12	18	8	46	75	99
49″x33″	42	12	13	21	9	53	85	111
57″x38″	48	12	18	26	12	63	90	126
64″x43″	54	12	18	30	12	70	102	138
71″x47″	60	12/10	18	33	12	77	114	150
77″x52″	66	12/10	18	36	12	77	126	162
83″x57″	72	12/10	18	39	12	77	138	174

End Sections for Pipe-Arch (3″ x 1″ and 5″ x 1″)

			Approximate Dimensions, Inches [7]					
Span/Rise	**Equiv. Round (Inches)**	**Gage**	**A (+/- 1") (Inches)**	**B (Max) (Inches)**	**H (+/- 1") (Inches)**	**W (+/- 2") (Inches)**	**L (+/- 2") (Inches)**	**Overall Width (+/- 4") (Inches)**
53″x41″	48	12	18	25	12	90	63	126
60″x46″	54	12	18	34	12	102	70	138
66″x51″	60	12/10	18	33	12	116	77	152
73″x55″	66	12/10	18	36	12	126	77	162
81″x59″	72	12/10	18	39	12	138	77	174
87″x63″	78	12/10	20	38	12	148	77	188
95″x67″	84	12/10	20	34	12	162	87	202
103″X71″	90	12/10	20	38	12	174	87	214
112″x75″	96	12/10	20	40	12	174	87	214

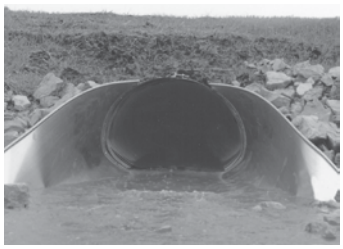
Contech End Sections attach to corrugated metal pipe, reinforced concrete and plastic pipe.



Note: *The Type 3 connection is not illustrated. This connection is a one-foot length of pipe attached to the end section.*



End Section on Round CSP



End Sections are available for CSP Pipe-Arch



Contech End Sections are often used on concrete pipe. They can be used on both the bell and spigot end.



Low-slope End Sections—Contech manufactures 4:1 and 6:1 low-slope End Sections for corrugated metal pipe. This photo shows the optional field-attached safety bars.

Contech Engineered Solutions LLC is a leading provider of site solution products and services for the civil engineering industry. Contech's product portfolio includes bridges, drainage, retaining walls, sanitary sewer, stormwater, erosion control, soil stabilization and wastewater products.

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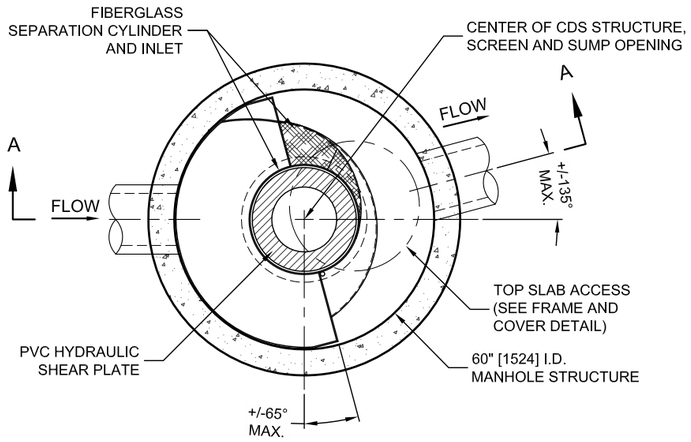
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800-338-1122

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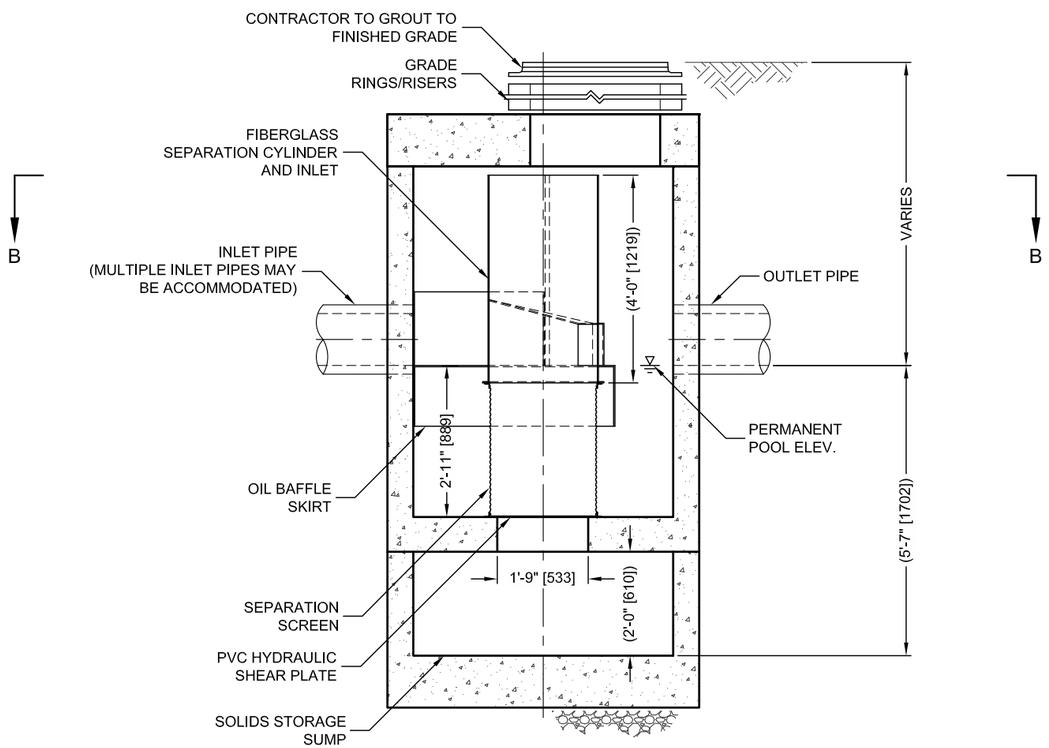
CONTECH® ENGINEERED SOLUTIONS

BRO-CMP-DESIGN 8/14 3M PDF

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PLAN VIEW B-B
N.T.S.



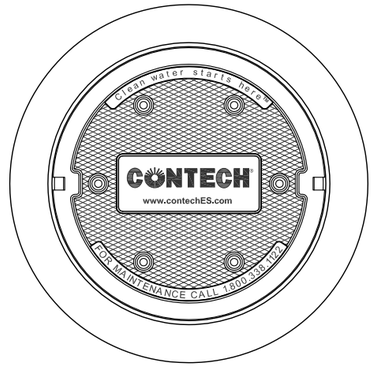
ELEVATION A-A
N.T.S.

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,595; 6,581,783; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CDS2025-5-C DESIGN NOTES

THE STANDARD CDS2025-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	CDS#1
WATER QUALITY FLOW RATE (CFS OR L/s)	0.49
PEAK FLOW RATE (CFS OR L/s)	12
RETURN PERIOD OF PEAK FLOW (YRS)	100
SCREEN APERTURE (2400 OR 4700)	2400

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	TBD	TBD	TBD
INLET PIPE 2			
OUTLET PIPE	TBD	TBD	TBD

RIM ELEVATION	1159.75

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

DETAIL WILL BE PROVIDED IN FINAL WQMP

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2025-5-C
INLINE CDS
STANDARD DETAIL

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CONTECH®
ENGINEERED SOLUTIONS

CDS Guide
Operation, Design, Performance and Maintenance



CDS®

Using patented continuous deflective separation technology, the CDS system screens, separates and traps debris, sediment, and oil and grease from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material without blinding. Flow and screening controls physically separate captured solids, and minimize the re-suspension and release of previously trapped pollutants. Inline units can treat up to 6 cfs, and internally bypass flows in excess of 50 cfs (1416 L/s). Available precast or cast-in-place, offline units can treat flows from 1 to 300 cfs (28.3 to 8495 L/s). The pollutant removal capacity of the CDS system has been proven in lab and field testing.

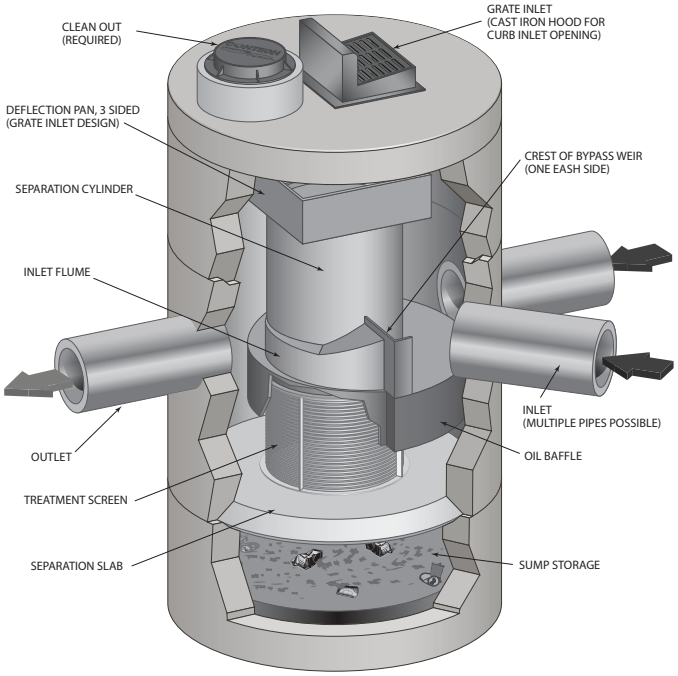
Operation Overview

Stormwater enters the diversion chamber where the diversion weir guides the flow into the unit's separation chamber and pollutants are removed from the flow. All flows up to the system's treatment design capacity enter the separation chamber and are treated.

Swirl concentration and screen deflection force floatables and solids to the center of the separation chamber where 100% of floatables and neutrally buoyant debris larger than the screen apertures are trapped.

Stormwater then moves through the separation screen, under the oil baffle and exits the system. The separation screen remains clog free due to continuous deflection.

During the flow events exceeding the treatment design capacity, the diversion weir bypasses excessive flows around the separation chamber, so captured pollutants are retained in the separation cylinder.



Design Basics

There are three primary methods of sizing a CDS system. The Water Quality Flow Rate Method determines which model size provides the desired removal efficiency at a given flow rate for a defined particle size. The Rational Rainfall Method™ or the and Probabilistic Method is used when a specific removal efficiency of the net annual sediment load is required.

Typically in the Unites States, CDS systems are designed to achieve an 80% annual solids load reduction based on lab generated performance curves for a gradation with an average particle size (d50) of 125 microns (μm). For some regulatory environments, CDS systems can also be designed to achieve an 80% annual solids load reduction based on an average particle size (d50) of 75 microns (μm) or 50 microns (μm).

Water Quality Flow Rate Method

In some cases, regulations require that a specific treatment rate, often referred to as the water quality design flow (WQQ), be treated. This WQQ represents the peak flow rate from either an event with a specific recurrence interval, e.g. the six-month storm, or a water quality depth, e.g. 1/2-inch (13 mm) of rainfall.

The CDS is designed to treat all flows up to the WQQ. At influent rates higher than the WQQ, the diversion weir will direct most flow exceeding the WQQ around the separation chamber. This allows removal efficiency to remain relatively constant in the separation chamber and eliminates the risk of washout during bypass flows regardless of influent flow rates.

Treatment flow rates are defined as the rate at which the CDS will remove a specific gradation of sediment at a specific removal efficiency. Therefore the treatment flow rate is variable, based on the gradation and removal efficiency specified by the design engineer.

Rational Rainfall Method™

Differences in local climate, topography and scale make every site hydraulically unique. It is important to take these factors into consideration when estimating the long-term performance of any stormwater treatment system. The Rational Rainfall Method combines site-specific information with laboratory generated performance data, and local historical precipitation records to estimate removal efficiencies as accurately as possible.

Short duration rain gauge records from across the United States and Canada were analyzed to determine the percent of the total annual rainfall that fell at a range of intensities. US stations' depths were totaled every 15 minutes, or hourly, and recorded in 0.01-inch increments. Depths were recorded hourly with 1-mm resolution at Canadian stations. One trend was consistent at all sites; the vast majority of precipitation fell at low intensities and high intensity storms contributed relatively little to the total annual depth.

These intensities, along with the total drainage area and runoff coefficient for each specific site, are translated into flow rates using the Rational Rainfall Method. Since most sites are relatively small and highly impervious, the Rational Rainfall Method is appropriate. Based on the runoff flow rates calculated for each intensity, operating rates within a proposed CDS system are

determined. Performance efficiency curve determined from full scale laboratory tests on defined sediment PSDs is applied to calculate solids removal efficiency. The relative removal efficiency at each operating rate is added to produce a net annual pollutant removal efficiency estimate.

Probabilistic Rational Method

The Probabilistic Rational Method is a sizing program Contech developed to estimate a net annual sediment load reduction for a particular CDS model based on site size, site runoff coefficient, regional rainfall intensity distribution, and anticipated pollutant characteristics.

The Probabilistic Method is an extension of the Rational Method used to estimate peak discharge rates generated by storm events of varying statistical return frequencies (e.g. 2-year storm event). Under the Rational Method, an adjustment factor is used to adjust the runoff coefficient estimated for the 10-year event, correlating a known hydrologic parameter with the target storm event. The rainfall intensities vary depending on the return frequency of the storm event under consideration. In general, these two frequency dependent parameters (rainfall intensity and runoff coefficient) increase as the return frequency increases while the drainage area remains constant.

These intensities, along with the total drainage area and runoff coefficient for each specific site, are translated into flow rates using the Rational Method. Since most sites are relatively small and highly impervious, the Rational Method is appropriate. Based on the runoff flow rates calculated for each intensity, operating rates within a proposed CDS are determined. Performance efficiency curve on defined sediment PSDs is applied to calculate solids removal efficiency. The relative removal efficiency at each operating rate is added to produce a net annual pollutant removal efficiency estimate.

Treatment Flow Rate

The inlet throat area is sized to ensure that the WQQ passes through the separation chamber at a water surface elevation equal to the crest of the diversion weir. The diversion weir bypasses excessive flows around the separation chamber, thus preventing re-suspension or re-entrainment of previously captured particles.

Hydraulic Capacity

The hydraulic capacity of a CDS system is determined by the length and height of the diversion weir and by the maximum allowable head in the system. Typical configurations allow hydraulic capacities of up to ten times the treatment flow rate. The crest of the diversion weir may be lowered and the inlet throat may be widened to increase the capacity of the system at a given water surface elevation. The unit is designed to meet project specific hydraulic requirements.

Performance

Full-Scale Laboratory Test Results

A full-scale CDS system (Model CDS2020-5B) was tested at the facility of University of Florida, Gainesville, FL. This CDS unit was evaluated under controlled laboratory conditions of influent flow rate and addition of sediment.

Two different gradations of silica sand material (UF Sediment & OK-110) were used in the CDS performance evaluation. The particle size distributions (PSDs) of the test materials were analyzed using standard method "Gradation ASTM D-422 "Standard Test Method for Particle-Size Analysis of Soils" by a certified laboratory.

UF Sediment is a mixture of three different products produced by the U.S. Silica Company: "Sil-Co-Sil 106", "#1 DRY" and "20/40 Oil Frac". Particle size distribution analysis shows that the UF Sediment has a very fine gradation (d50 = 20 to 30 μm) covering a wide size range (Coefficient of Uniformity, C averaged at 10.6). In comparison with the hypothetical TSS gradation specified in the NJDEP (New Jersey Department of Environmental Protection) and NJCAT (New Jersey Corporation for Advanced Technology) protocol for lab testing, the UF Sediment covers a similar range of particle size but with a finer d50 (d50 for NJDEP is approximately 50 μm) (NJDEP, 2003).

The OK-110 silica sand is a commercial product of U.S. Silica Sand. The particle size distribution analysis of this material, also included in Figure 1, shows that 99.9% of the OK-110 sand is finer than 250 microns, with a mean particle size (d50) of 106 microns. The PSDs for the test material are shown in Figure 1.

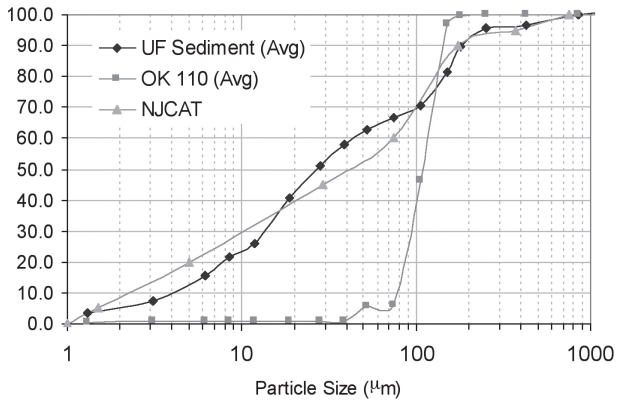


Figure 1. Particle size distributions

Tests were conducted to quantify the performance of a specific CDS unit (1.1 cfs (31.3-L/s) design capacity) at various flow rates, ranging from 1% up to 125% of the treatment design capacity of the unit, using the 2400 micron screen. All tests were conducted with controlled influent concentrations of approximately 200 mg/L. Effluent samples were taken at equal time intervals across the entire duration of each test run. These samples were then processed with a Dekaport Cone sample splitter to obtain representative sub-samples for Suspended Sediment Concentration (SSC) testing using ASTM D3977-97 "Standard Test Methods for Determining Sediment Concentration in Water Samples", and particle size distribution analysis.

Results and Modeling

Based on the data from the University of Florida, a performance model was developed for the CDS system. A regression analysis was used to develop a fitting curve representative of the scattered data points at various design flow rates. This model, which demonstrated good agreement with the laboratory data, can then be used to predict CDS system performance with respect

to SSC removal for any particle size gradation, assuming the particles are inorganic sandy-silt. Figure 2 shows CDS predictive performance for two typical particle size gradations (NJCAT gradation and OK-110 sand) as a function of operating rate.

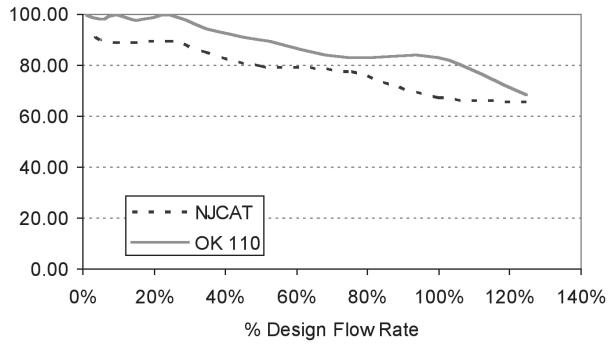


Figure 2. CDS stormwater treatment predictive performance for various particle gradations as a function of operating rate.

Many regulatory jurisdictions set a performance standard for hydrodynamic devices by stating that the devices shall be capable of achieving an 80% removal efficiency for particles having a mean particle size (d50) of 125 microns (e.g. Washington State Department of Ecology — WASDOE - 2008). The model can be used to calculate the expected performance of such a PSD (shown in Figure 3). The model indicates (Figure 4) that the CDS system with 2400 micron screen achieves approximately 80% removal at the design (100%) flow rate, for this particle size distribution (d50 = 125 μm).

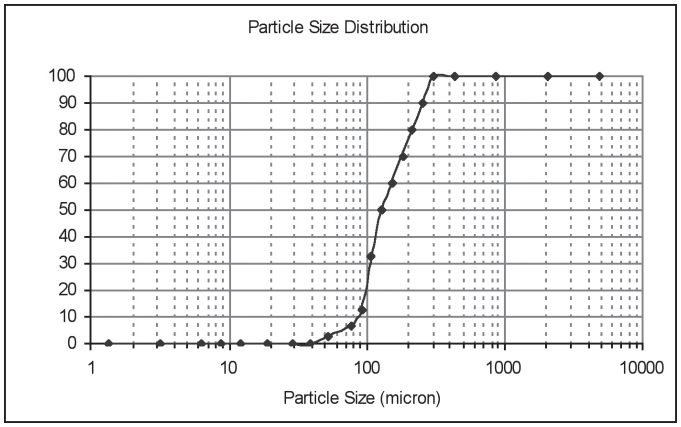


Figure 3. WASDOE PSD

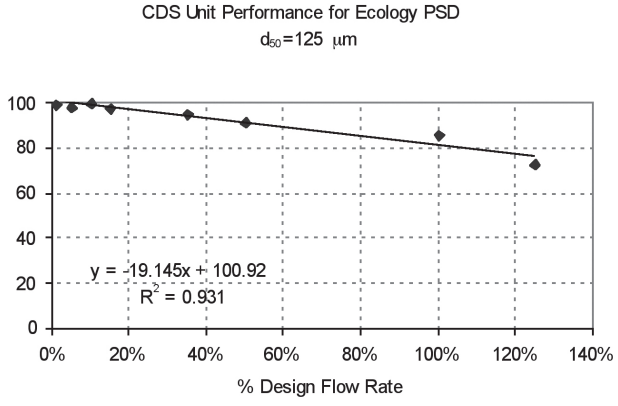


Figure 4. Modeled performance for WASDOE PSD.

Maintenance

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit. For example, unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (e.g. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment washdown areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified



during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided.

Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber (cylinder and screen) and isolated sump. The other allows for inspection and cleanout of sediment captured and retained outside the screen. For deep units, a single manhole access point would allows both sump cleanout and access outside the screen.

The CDS system should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. If absorbent material is used, it should be replaced when significant discoloration has occurred. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Particles at the top of the pile typically offer less resistance to the end of the rod than consolidated particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the as-built drawing for the unit to determine weather the height of the sediment pile off the bottom of the sump floor exceeds 75% of the total height of isolated sump.

Cleaning

Cleaning of a CDS systems should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. The screen should be cleaned to ensure it is free of trash and debris.

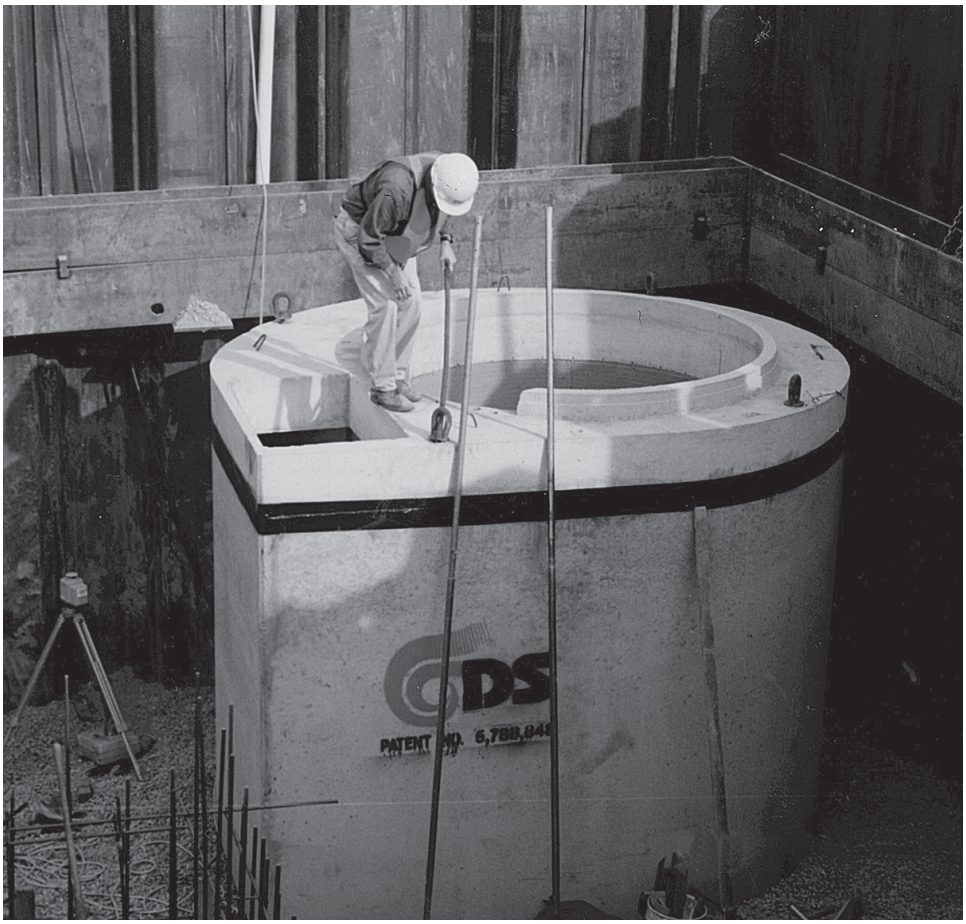
Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure that proper safety precautions have been followed. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the CDS system should be done in accordance with local regulations. In many jurisdictions, disposal of the sediments may be handled in the same manner as the disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal.



CDS Model	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	yd3	m3
CDS2015-4	4	1.2	3.0	0.9	0.5	0.4
CDS2015	5	1.5	3.0	0.9	1.3	1.0
CDS2020	5	1.5	3.5	1.1	1.3	1.0
CDS2025	5	1.5	4.0	1.2	1.3	1.0
CDS3020	6	1.8	4.0	1.2	2.1	1.6
CDS3030	6	1.8	4.6	1.4	2.1	1.6
CDS3035	6	1.8	5.0	1.5	2.1	1.6
CDS4030	8	2.4	4.6	1.4	5.6	4.3
CDS4040	8	2.4	5.7	1.7	5.6	4.3
CDS4045	8	2.4	6.2	1.9	5.6	4.3

Table 1: CDS Maintenance Indicators and Sediment Storage Capacities

Note: To avoid underestimating the volume of sediment in the chamber, carefully lower the measuring device to the top of the sediment pile. Finer silty particles at the top of the pile may be more difficult to feel with a measuring stick. These finer particles typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile.



CDS Inspection & Maintenance Log

CDS Model: _____ Location: _____

Date	Water depth to sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. If the difference between these measurements is less than eighteen inches the system should be cleaned out. **Note: To avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.**

2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

7

Support

- Drawings and specifications are available at www.ContechES.com/urbangreen.
- Site-specific design support is available from our engineers.

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The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; 7,296,692; 7,297,266; related foreign patents or other patents pending.

RECYCLED PAPER

Attachment C
Educational Material & BMP Fact Sheet

Help Protect Our Waterways!

Use these guidelines for Outdoor Cleaning Activities and Wash Water Disposal

Did you know that disposing of pollutants into the street, gutter, storm drain or body of water is *PROHIBITED* by law and can result in stiff penalties?

Best Management Practices

Waste wash water from Mechanics, Plumbers, Window/Power Washers, Carpet Cleaners, Car Washing and Mobile Detailing activities may contain significant quantities of motor oil, grease, chemicals, dirt, detergents, brake pad dust, litter and other materials.

Best Management Practices, or BMPs as they are known, are guides to prevent pollutants from entering the storm drains. ***Each of us*** can do our part to keep stormwater clean by using the suggested BMPs below:

Simple solutions for both light and heavy duty jobs:

Do...consider dry cleaning methods first such as a mop, broom, rag or wire brush. Always keep a spill response kit on site.

Do...prepare the work area before power cleaning by using sand bags, rubber mats, vacuum booms, containment pads or temporary berms to keep wash water away from the gutters and storm drains.

Do...use vacuums or other machines to remove and collect loose debris or litter before applying water.

Do...obtain the property owner's permission to dispose of ***small amounts*** of power washing waste water on to landscaped, gravel or unpaved surfaces.

Do...check your local sanitary sewer agency's policies on wash water disposal regulations before disposing of wash water into the sewer. (See list on reverse side)

Do...be aware that if discharging to landscape areas, soapy wash water may damage landscaping. Residual wash water may remain on paved surfaces to evaporate. Sweep up solid residuals and dispose of properly. Vacuum booms are another option for capturing and collecting wash water.

Do...check to see if local ordinances prevent certain activities.

Do not let...wash or waste water from sidewalk, plaza or building cleaning go into a street or storm drain.



Report illegal storm drain disposal
Call Toll Free
1-800-506-2555

Using Cleaning Agents

Try using biodegradable/phosphate-free products. They are easier on the environment, but don't confuse them with being toxic free. Soapy water entering the storm drain system can impact the delicate aquatic environment.



When cleaning surfaces with a ***high-pressure washer*** or ***steam cleaner***, additional precautions should be taken to prevent the discharge of pollutants into the storm drain system. These two methods of surface cleaning can loosen additional material that can contaminate local waterways.

Think Water Conservation

Minimize water use by using high pressure, low volume nozzles. Be sure to check all hoses for leaks. Water is a precious resource, don't let it flow freely and be sure to shut it off in between uses.

Screening Wash Water

Conduct thorough dry cleanup before washing exterior surfaces, such as buildings and decks ***with loose paint***, sidewalks or plaza areas. Keep debris from entering the storm drain after cleaning by first passing the wash water through a "20 mesh" or finer screen to catch the solid materials, then dispose of the mesh in a refuse container. Do not let the remaining wash water enter a street, gutter or storm drain.

Drain Inlet Protection & Collection of Wash Water

- Prior to any washing, block all storm drains with an impervious barrier such as sandbags or berms, or seal the storm drain with plugs or other appropriate materials.
- Create a containment area with berms and traps or take advantage of a low spot to keep wash water contained.
- Wash vehicles and equipment on grassy or gravel areas so that the wash water can seep into the ground.
- Pump or vacuum up all wash water in the contained area.

Concrete/Coring/Saw Cutting and Drilling Projects

Protect any down-gradient inlets by using dry activity techniques whenever possible. If water is used, minimize the amount of water used during the coring/drilling or saw cutting process. Place a barrier of sandbags and/or absorbent berms to protect the storm drain inlet or watercourse. Use a shovel or wet vacuum to remove the residue from the pavement. Do not wash residue or particulate matter into a storm drain inlet or watercourse.

Helpful telephone numbers and links:

Riverside County Stormwater Protection Partners

Flood Control District	(951) 955-1200
County of Riverside	(951) 955-1000
City of Banning	(951) 922-3105
City of Beaumont	(951) 769-8520
City of Calimesa	(909) 795-9801
City of Canyon Lake	(951) 244-2955
Cathedral City	(760) 770-0327
City of Coachella	(760) 398-4978
City of Corona	(951) 736-2447
City of Desert Hot Springs	(760) 329-6411
City of Eastvale	(951) 361-0900
City of Hemet	(951) 765-2300
City of Indian Wells	(760) 346-2489
City of Indio	(760) 391-4000
City of Lake Elsinore	(951) 674-3124
City of La Quinta	(760) 777-7000
City of Menifee	(951) 672-6777
City of Moreno Valley	(951) 413-3000
City of Murrieta	(951) 304-2489
City of Norco	(951) 270-5607
City of Palm Desert	(760) 346-0611
City of Palm Springs	(760) 323-8299
City of Perris	(951) 943-6100
City of Rancho Mirage	(760) 324-4511
City of Riverside	(951) 361-0900
City of San Jacinto	(951) 654-7337
City of Temecula	(951) 694-6444
City of Wildomar	(951) 677-7751

REPORT ILLEGAL STORM DRAIN DISPOSAL
1-800-506-2555 or e-mail us at
fcnpdes@rcflood.org

- Riverside County Flood Control and Water Conservation District
  www.rcflood.org

Online resources include:

- California Storm Water Quality Association
  www.casqa.org
- State Water Resources Control Board
  www.waterboards.ca.gov
- Power Washers of North America
  www.thepwna.org

Stormwater Pollution

What you should know for...

Outdoor Cleaning Activities and Professional Mobile Service Providers



Storm drain pollution prevention information for:

- Car Washing / Mobile Detailers
- Window and Carpet Cleaners
- Power Washers
- Waterproofers / Street Sweepers
- Equipment cleaners or degreasers and all mobile service providers

Do you know where street flows actually go?

Storm drains are NOT connected to sanitary sewer systems and treatment plants!



The primary purpose of storm drains is to carry *rain* water away from developed areas to prevent flooding. Pollutants discharged to storm drains are transported directly into rivers, lakes and streams. Soaps, degreasers, automotive fluids, litter and a host of materials are washed off buildings, sidewalks, plazas and parking areas. Vehicles and equipment must be properly managed to prevent the pollution of local waterways.

Unintentional spills by mobile service operators can flow into storm drains and pollute our waterways. **Avoid mishaps.** *Always* have a **Spill Response Kit** on hand to clean up unintentional spills. Only emergency **Mechanical** repairs should be done in City streets, using drip pans for spills. **Plumbing** should be done on private property. Always store chemicals in a leak-proof container and keep covered when not in use. **Window/Power Washing** waste water shouldn't be released into the streets, but should be disposed of in a sanitary sewer, landscaped area or in the soil. Soiled **Carpet Cleaning** wash water should be filtered before being discharged into the sanitary sewer. Dispose of all filter debris properly. **Car Washing/Detailing** operators should wash cars on private property and use a regulated hose nozzle for water flow control and runoff prevention. Capture and dispose of waste water and chemicals properly. Remember, storm drains are for receiving rain water runoff only.

REPORT ILLEGAL STORM DRAIN DISPOSAL 1-800-506-2555





A Citizen's Guide to Understanding Stormwater

After the Storm

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.
- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.



THE YEAR OF CLEAN WATER

EPA 833-B-03-002

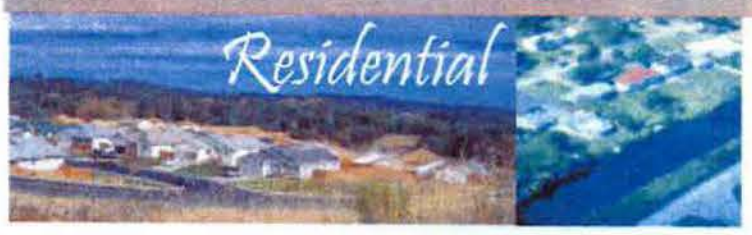
January 2003

For more information contact:

or visit
www.epa.gov/npdes/stormwater
www.epa.gov/nps

Stormwater Pollution Solutions

Residential



Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

Lawn care



Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.

- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- Cover piles of dirt or mulch being used in landscaping projects.

Septic systems



Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

Auto care



Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.

Pet waste



Pet waste can be a major source of bacteria and excess nutrients in local waters.

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.



Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.



Rain Barrels—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.

Rain Gardens and Grassy Swales—Specially designed areas planted with native plants can provide natural places for rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.



Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.

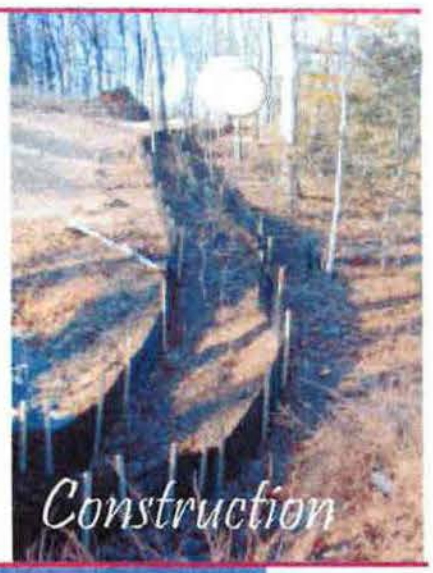
Commercial



Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- Cover grease storage and dumpsters and keep them clean to avoid leaks.
- Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

Construction



Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be washed into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- Divert stormwater away from disturbed or exposed areas of the construction site.
- Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.

Agriculture

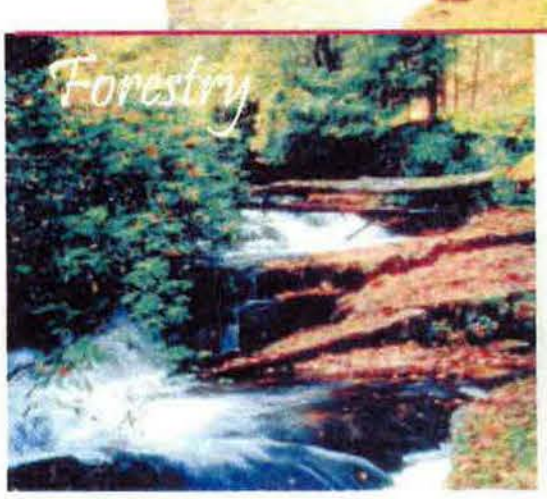


Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.



- Keep livestock away from streambanks and provide them a water source away from waterbodies.
- Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- Vegetate riparian areas along waterways.
- Rotate animal grazing to prevent soil erosion in fields.
- Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.

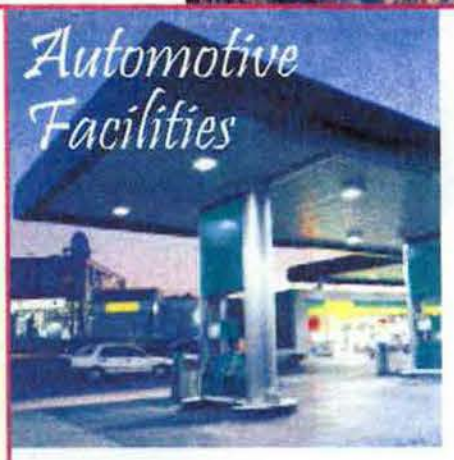
Forestry



Improperly managed logging operations can result in erosion and sedimentation.

- Conduct preharvest planning to prevent erosion and lower costs.
- Use logging methods and equipment that minimize soil disturbance.
- Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- Construct stream crossings so that they minimize erosion and physical changes to streams.
- Expedite revegetation of cleared areas.

Automotive Facilities



Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- Clean up spills immediately and properly dispose of cleanup materials.
- Provide cover over fueling stations and design or retrofit facilities for spill containment.
- Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- Install and maintain oil/water separators.

STORMWATER POLLUTION FROM CONSTRUCTION ACTIVITIES

The two most common sources of stormwater pollution problems associated with construction activities are ***erosion*** and ***sedimentation***. Failure to maintain adequate erosion and sediment controls at construction sites often results in sediment discharges into the storm drain system, creating multiple problems once it enters local waterways.

Construction vehicles and heavy equipment can also track significant amounts of mud and sediment onto adjacent streets. Additionally, wind may transport construction materials and wastes into streets storm drains, or directly into our local waterways.

Resources

State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento CA 95814
(916) 341-5455
www.swrcb.ca.gov/stormwtr/

Colorado River Basin Regional Water
Quality Control Board - Region 7
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491
www.swrcb.ca.gov/~rwqcb7/

Santa Ana Regional Water
Quality Control Board - Region 8
3737 Main Street, Suite 500
Riverside, CA 92501-3348
(909) 782-4130
www.swrcb.ca.gov/~rwqcb8/

San Diego Regional Water
Quality Control Board - Region 9
9771 Clairemont Mesa Blvd., Suite A
San Diego, CA 92124
(858) 467-2952
www.swrcb.ca.gov/~rwqcb9/

The StormWater/CleanWater Protection Program gratefully acknowledges the Santa Clara Valley Nonpoint Pollution Control Program, Alameda Countywide CleanWater Program and the City of Los Angeles Stormwater Management Division for information provided in this brochure.

To order additional brochures or to obtain information on other pollution prevention activities, please call (909) 955-1200 or visit the StormWater/CleanWater Protection Program website at:
www.co.riverside.ca.us/depts/flood/water quality/npdes.asp

To report an illegal dumping or a clogged storm drain, call:

1-800-506-2555

For recycling and hazardous waste disposal, call:

(909) 358-5055

To report a hazardous materials spill, call:

Riverside County Hazardous Materials
Emergency Response Team
(909) 358-5055 8:00 a.m. – 5:00 p.m.
(909) 358-5245 after 5:00 p.m.

In an emergency call: **911**

StormWater Pollution

What you should know for...

GENERAL CONSTRUCTION & SITE SUPERVISION

Best Management Practices (BMPs) for:

- Developers
- General Contractors
- Home Builders
- Construction Inspectors
- Anyone in the construction business

StormWater Pollution . . . What You Should Know

Riverside County has two drainage systems - sewers and storm drains. The storm drain system was designed to reduce flooding by carrying excess rainwater away from streets and developed areas. Since the storm drain system does not provide for water treatment, it also serves the *unintended* function of transporting pollutants directly to our local waterways.

Unlike sanitary sewers, storm drains are not connected to a wastewater treatment plant – they flow directly to our local streams, rivers and lakes.

Stormwater runoff is a part of the natural hydrologic process. However, land development and construction activities can significantly alter natural drainage processes and introduce pollutants into stormwater runoff. Polluted stormwater runoff from construction sites has been identified as a major source of water pollution in California. It jeopardizes the quality of our local waterways and can pose a serious threat to the health of our aquatic ecosystems.

The Cities and County of Riverside StormWater/CleanWater Protection Program

Because preventing pollution is much easier and less costly than cleaning up "after the fact," the Cities and County of Riverside StormWater/CleanWater Protection Program informs residents and businesses on pollution prevention activities. This pamphlet describes various Best Management Practices (BMPs) that construction site operators can use to prevent stormwater pollution.

In accordance with applicable federal and state law, the Cities and County of Riverside have adopted ordinances for stormwater management and discharge control that **prohibit** the discharge of pollutants into the storm drain system or local surface waters. This includes discharges from construction sites containing sediment, concrete, mortar, paint, solvents, lubricants, vehicle fluids, fuel, pesticides, and construction debris.

PLEASE NOTE: The Federal, State and local regulations strictly prohibit the discharge of sediment and pollutants into the streets, the storm drain system or waterways. As an owner, operator or supervisor of a construction site, you may be held financially responsible for any environmental damage caused by your subcontractors or employees.

What Should You Do?

Advance Planning to Prevent Pollution

- ❑ Remove existing vegetation only as needed.
- ❑ Schedule excavation, grading, and paving operations for dry weather periods, if possible.
- ❑ Designate a specific area of the construction site, well away from storm drain inlets or watercourses, for material storage and equipment maintenance.
- ❑ Develop and implement an effective combination of erosion and sediment controls for the construction site.
- ❑ Practice source reduction by ordering only the amount of materials that are needed to finish the project.
- ❑ Educate your employees and subcontractors about stormwater management requirements and their pollution prevention responsibilities.
- ❑ Control the amount of surface runoff at the construction site by impeding internally generated flows and using berms or drainage ditches to direct incoming offsite flows to go around the site. ***Note:*** *Consult local drainage policies for more information.*

Best Management Practices

The following Best Management Practices (BMPs) can significantly reduce pollutant discharges from your construction site. Compliance with stormwater regulations can be as simple as minimizing stormwater contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site.

- ❑ Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- ❑ Limit access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.
- ❑ Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- ❑ Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- ❑ Phase grading operations to limit disturbed areas and duration of exposure.
- ❑ Perform major maintenance and repairs of vehicles and equipment offsite.
- ❑ Wash out concrete mixers only in designated washout areas at the construction site.
- ❑ Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- ❑ Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- ❑ Clean-up spills immediately using dry clean-up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas. .
- ❑ Prevent erosion by implementing any or a combination of soil stabilization practices such as mulching, surface roughening, permanent or temporary seeding.
- ❑ Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.
- ❑ Practice proper waste disposal. Many construction materials and wastes, including solvents, water-based paint, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste.
- ❑ Cover open dumpsters with secured tarps or plastic sheeting. Never clean out a dumpster by washing it down on the construction site.
- ❑ Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.

General Construction Activities Stormwater Permit

(Construction Activities General Permit)

The State Water Resources Control Board (SWRCB) adopted a new Construction Activities General Permit (WQ Order No. 99-08DWQ) on August 19, 1999, superseding the now expired SWRCB statewide General Permit (WQ Order No. 92-08DWQ). This permit is administered and enforced by the SWRCB and the local Regional Water Quality Control Boards (RWQCB). The updated Construction Activities General Permit establishes a number of new stormwater management requirements for construction site operator.

NOTE: *Some construction activies stormwater permits are issued on a regional basis. Consult your local RWQCB to find out if your project requires coverage under any of these permits.*

Frequently Asked Questions:

Does my construction site require coverage under the Construction Activities General Permit?

Yes, if construction activity results in the disturbance of five or more acres of total land area or is part of a common plan of development that results in the disturbance of five or more acres.

How do I obtain coverage under the Construction Activities General Permit?

Obtain the permit package and submit the completed Notice of Intent (NOI) form to the SWRCB prior to grading or disturbing soil at the construction site. For ongoing construction activity involving a change of ownership, the new owner must submit a new NOI within 30 days of the date of change of ownership. The completed NOI along with the required fee should be mailed to the SWRCB.

What must I do to comply with the requirements of the Construction Activities General Permit?

- ● Implement BMPs for non-stormwater discharges year-round.
- ● Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) prior to commencing construction activities.
- ● Keep a copy of the SWPPP at the construction site for the entire duration of the project.
- ● Calculate the anticipated stormwater run-off.
- ● Implement an effective combination of erosion and sediment control on all soil disturbed areas.
- ● Conduct site inspections prior to anticipated storm events, every 24-hours during extended storm events, and after actual storm event.
- ● Perform repair and maintenance of BMPs as soon as possible after storm events depending upon worker safety.
- ● Update the SWPPP as needed, to manage pollutants or reflect changes in site conditions.
- ● Include description of post construction BMPs at the construction site, including parties responsible for long-term maintenance.

NOTE: *Please refer to the Construction Activities General Permit for detailed information. You may contact the SWRCB, your local RWQCB, or visit the SWRCB website at www.swrcb.ca.gov/stormwtr/ to obtain a State Construction Activities Stormwater General Permit packet.*

How long is this Construction Activities General Permit in effect?

The Permit coverage stays in effect untilyou submit a Notice of Termination (NOT) to the SWRCB. For the purpose of submitting a NOT, all soil disturbing activities have to be completed and one of the three following criteria has to be met:

1. Change of ownership;
2. A uniform vegetative cover with 70 percent coverage has been established; or,
3. Equivalent stabilization measures such as the use of reinforced channel liners, soil cement, fiber matrices, geotextiles, etc., have been employed.

For Information:

For more information on the General Industrial Storm Water Permit contact:

State Water Resources Control Board (SWRCB)
(916) 657-1146 or www.swrcb.ca.gov/ or, at your Regional Water Quality Control Board (RWQCB).

Santa Ana Region (8)
California Tower
3737 Main Street, Ste. 500
Riverside, CA 92501-3339
(909) 782-4130

San Diego Region (9)
9771 Clairemont Mesa Blvd., Ste. A
San Diego, CA 92124
(619) 467-2952

Colorado River Basin Region (7)
73-720 Fred Waring Dr., Ste. 100
Palm Desert, CA 92260
(760) 346-7491

SPILL RESPONSE AGENCY:
HAZ-MAT: (909) 358-5055
HAZARDOUS WASTE DISPOSAL: (909) 358-5055
RECYCLING INFORMATION: 1-800-366-SAVE
TO REPORT ILLEGAL DUMPING OR A CLOGGED STORM DRAIN: 1-800-506-2555

To order additional brochures or to obtain information on other pollution prevention activities, call:
(909) 955-1111.

StormWater CleanWater
PROTECTION PROGRAM

Riverside County gratefully acknowledges the State Water Quality Control Board and the American Public Works Association, Storm Water Quality Task Force for the information provided in this brochure.

DID YOU KNOW . . .

YOUR FACILITY MAY NEED A STORM WATER PERMIT?



Many industrial facilities and manufacturing operations must obtain coverage under the Industrial Activities Storm Water General Permit

FIND OUT
IF YOUR FACILITY MUST OBTAIN A PERMIT

StormWater Pollution . . . What you should know

Riverside County has two drainage systems - sanitary sewers and storm drains. The storm drain system is designed to help prevent flooding by carrying excess rainwater away from streets. Since the storm drain system does not provide for water treatment, it also serves the *unintended* function of transporting pollutants directly to our waterways.

Unlike sanitary sewers, storm drains are not connected to a treatment plant - they flow directly to our local streams, rivers and lakes.



In recent years, awareness of the need to protect water quality has increased. As a result, federal, state, and local programs have been established to reduce polluted stormwater discharges to our waterways. The emphasis of these programs is to prevent stormwater pollution since it's much easier, and less costly, than cleaning up "after the fact."

National Pollutant Discharge Elimination System (NPDES)

In 1987, the Federal Clean Water Act was amended to establish a framework for regulating industrial stormwater discharges under the NPDES permit program. In California, NPDES permits are issued by the State Water Resources Control Board (SWRCB) and the nine (9) Regional Water Quality Control Boards (RWQCB). In general, certain industrial facilities and manufacturing operations must obtain coverage under the Industrial Activities Storm Water General Permit if the type of facilities or operations falls into one of the several categories described in this brochure.

How Do I Know If I Need A Permit?

Following are ***general descriptions*** of the industry categories types that are regulated by the Industrial Activities Storm Water General Permit. Contact your local Region Water Quality Control Board to determine if your facility/operation requires coverage under the Permit.

➜ Facilities such as cement manufacturing; feedlots; fertilizer manufacturing; petroleum refining; phosphate manufacturing; steam electric power generation; coal mining; mineral mining and processing; ore mining and dressing; and asphalt emulsion;

➜ Facilities classified as lumber and wood products (except wood kitchen cabinets); pulp, paper, and paperboard mills; chemical producers (except some pharmaceutical and biological products); petroleum and coal products; leather production and products; stone, clay and glass products; primary metal industries; fabricated structural metal; ship and boat building and repairing;

➜ Active or inactive mining operations and oil and gas exploration, production, processing, or treatment operations;

➜ Hazardous waste treatment, storage, or disposal facilities;

➜ Landfills, land application sites and open dumps that receive or have received any industrial waste; unless there is a new overlying land use such as a golf course, park, etc., and there is no discharge associated with the landfill;

➜ Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards;

➜ Steam electric power generating facilities, facilities that generate steam for electric power by combustion;

➜ Transportation facilities that have vehicle maintenance shops, fueling facilities, equipment cleaning operations, or airport deicing operations. This includes school bus maintenance facilities operated by a school district;

➜ Sewage treatment facilities;

➜ Facilities that have areas where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water.

How do I obtain coverage under the Industrial Activities Storm Water General Permit?

Obtain a permit application package from your local Regional Water Quality Control Board listed on the back of this brochure or the State Water Resources Control Board (SWRCB). Submit a completed Notice of Intent (NOI) form, site map and the appropriate fee ($250 or $500) to the SWRCB. Facilities must submit an NOI thirty (30) days prior to beginning operation. Once you submit the NOI, the State Board will send you a letter acknowledging receipt of your NOI and will assign your facility a waste discharge identification number (WDID No.). You will also receive an annual fee billing. These billings should roughly coincide with the date the State Board processed your original NOI submittal.

What are the requirements of the Industrial Activities Storm Water General Permit?

The basic requirements of the Permit are:

1. The facility must eliminate any non-stormwater discharges or obtain a separate permit for such discharges.

2. The facility must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must identify sources of pollutants that may be exposed to stormwater. Once the sources of pollutants have been identified, the facility operator must develop and implement Best Management Practices (BMPs) to minimize or prevent polluted runoff.

   Guidance in preparing a SWPPP is available from a document prepared by the California Storm Water Quality Task Force called the California Storm Water Best Management Practice Handbook.

3. The facility must develop and implement a Monitoring Program that includes conducting visual observations and collecting samples of the facility's storm water discharges associated with industrial activity. The General Permit requires that the analysis be conducted by a laboratory that is certified by the State of California.

4. The facility must submit to the Regional Board, every July 1, an annual report that includes the results of its monitoring program.

A Non-Storm Water Discharge is... *any discharge to a storm drain system that is not composed entirely of storm water. The following non-storm water discharges are authorized by the General Permit: fire hydrant flushing; potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems; drinking fountain water; atmospheric condensates including refrigeration, air conditioning, and compressor condensate; irrigation drainage; landscape watering; springs; non-contaminated ground water; foundation or footing drainage; and sea water infiltration where the sea waters are discharged back into the sea water source.*

A BMP is . . . *a technique, process, activity, or structure used to reduce the pollutant content of a storm water discharge. BMPs may include simple, non-structural methods such as good housekeeping, staff training and preventive maintenance. Additionally, BMPs may include structural modifications such as the installation of berms, canopies or treatment control (e.g. setting basins, oil/water separators, etc.)*



WARNING*: There are significant penalties for non-compliance: a minimum fine of $5,000 for failing to obtain permit coverage, and, up to $10,000 per day, per violation plus $10 per gallon of discharge in excess of 1,000 gallons.*

Outdoor Loading/Unloading SC-30



Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Description

The loading/unloading of materials usually takes place outside on docks or terminals; therefore, materials spilled, leaked, or lost during loading/unloading may collect in the soil or on other surfaces and have the potential to be carried away by stormwater runoff or when the area is cleaned. Additionally, rainfall may wash pollutants from machinery used to unload or move materials. Implementation of the following protocols will prevent or reduce the discharge of pollutants to stormwater from outdoor loading/unloading of materials.

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Keep accurate maintenance logs to evaluate materials removed and improvements made.
- Park tank trucks or delivery vehicles in designated areas so that spills or leaks can be contained.
- Limit exposure of material to rainfall whenever possible.
- Prevent stormwater run-on.
- Check equipment regularly for leaks.

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Suggested Protocols

Loading and Unloading – General Guidelines

- Develop an operations plan that describes procedures for loading and/or unloading.
- Conduct loading and unloading in dry weather if possible.
- Cover designated loading/unloading areas to reduce exposure of materials to rain.
- Consider placing a seal or door skirt between delivery vehicles and building to prevent exposure to rain.
- Design loading/unloading area to prevent stormwater run-on, which would include grading or berming the area, and position roof downspouts so they direct stormwater away from the loading/unloading areas.
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible.
- Load/unload only at designated loading areas.
- Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections. Several drip pans should be stored in a covered location near the liquid transfer area so that they are always available, yet protected from precipitation when not in use. Drip pans can be made specifically for railroad tracks. Drip pans must be cleaned periodically, and drip collected materials must be disposed of properly.
- Pave loading areas with concrete instead of asphalt.
- Avoid placing storm drains in the area.
- Grade and/or berm the loading/unloading area to a drain that is connected to a deadend.

Inspection

- Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
- Look for dust or fumes during loading or unloading operations.

Training

- Train employees (e.g., fork lift operators) and contractors on proper spill containment and cleanup.
- Have employees trained in spill containment and cleanup present during loading/unloading.
- Train employees in proper handling techniques during liquid transfers to avoid spills.
- Make sure forklift operators are properly trained on loading and unloading procedures.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Contain leaks during transfer.
- Store and maintain appropriate spill cleanup materials in a location that is readily accessible and known to all and ensure that employees are familiar with the site's spill control plan and proper spill cleanup procedures.
- Have an emergency spill cleanup plan readily available.
- Use drip pans or comparable devices when transferring oils, solvents, and paints.

Other Considerations (Limitations and Regulations)

- Space and time limitations may preclude all transfers from being performed indoors or under cover.
- It may not be possible to conduct transfers only during dry weather.

Requirements

Costs

Costs should be low except when covering a large loading/unloading area.

Maintenance

- Conduct regular inspections and make repairs as necessary. The frequency of repairs will depend on the age of the facility.
- Check loading and unloading equipment regularly for leaks.
- Conduct regular broom dry-sweeping of area.

Supplemental Information

Further Detail of the BMP

Special Circumstances for Indoor Loading/Unloading of Materials

Loading or unloading of liquids should occur in the manufacturing building so that any spills that are not completely retained can be discharged to the sanitary sewer, treatment plant, or treated in a manner consistent with local sewer authorities and permit requirements.

- For loading and unloading tank trucks to above and below ground storage tanks, the following procedures should be used:
  - The area where the transfer takes place should be paved. If the liquid is reactive with the asphalt, Portland cement should be used to pave the area.
  - The transfer area should be designed to prevent run-on of stormwater from adjacent areas. Sloping the pad and using a curb, like a speed bump, around the uphill side of the transfer area should reduce run-on.

- The transfer area should be designed to prevent runoff of spilled liquids from the area. Sloping the area to a drain should prevent runoff. The drain should be connected to a dead-end sump or to the sanitary sewer. A positive control valve should be installed on the drain.

- For transfer from rail cars to storage tanks that must occur outside, use the following procedures:

  - Drip pans should be placed at locations where spillage may occur, such as hose connections, hose reels, and filler nozzles. Use drip pans when making and breaking connections.

  - Drip pan systems should be installed between the rails to collect spillage from tank cars.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Building & Grounds Maintenance SC-41



Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	
Organics	

Description

Stormwater runoff from building and grounds maintenance activities can be contaminated with toxic hydrocarbons in solvents, fertilizers and pesticides, suspended solids, heavy metals, abnormal pH, and oils and greases. Utilizing the protocols in this fact sheet will prevent or reduce the discharge of pollutants to stormwater from building and grounds maintenance activities by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the stormwater collection system.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Switch to non-toxic chemicals for maintenance when possible.
- Choose cleaning agents that can be recycled.
- Encourage proper lawn management and landscaping, including use of native vegetation.

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- Encourage use of Integrated Pest Management techniques for pest control.
- Encourage proper onsite recycling of yard trimmings.
- Recycle residual paints, solvents, lumber, and other material as much as possible.

Suggested Protocols

Pressure Washing of Buildings, Rooftops, and Other Large Objects

- In situations where soaps or detergents are used and the surrounding area is paved, pressure washers must use a water collection device that enables collection of wash water and associated solids. A sump pump, wet vacuum or similarly effective device must be used to collect the runoff and loose materials. The collected runoff and solids must be disposed of properly.
- If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff.
- If you are pressure washing on a grassed area (with or without soap), runoff must be dispersed as sheet flow as much as possible, rather than as a concentrated stream. The wash runoff must remain on the grass and not drain to pavement.

Landscaping Activities

- Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage, or by composting. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures on exposed soils.

Building Repair, Remodeling, and Construction

- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain.
- Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of collected material daily.
- Use a ground cloth or oversized tub for activities such as paint mixing and tool cleaning.
- Clean paintbrushes and tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can be dumped into a sanitary sewer drain. Brushes and tools covered with non-water-based paints, finishes, or other materials must be cleaned in a manner that enables collection of used solvents (e.g., paint thinner, turpentine, etc.) for recycling or proper disposal.
- Use a storm drain cover, filter fabric, or similarly effective runoff control mechanism if dust, grit, wash water, or other pollutants may escape the work area and enter a catch basin. This is particularly necessary on rainy days. The containment device(s) must be in place at the beginning of the work day, and accumulated dirty runoff and solids must be collected and disposed of before removing the containment device(s) at the end of the work day.

- If you need to de-water an excavation site, you may need to filter the water before discharging to a catch basin or off-site. If directed off-site, you should direct the water through hay bales and filter fabric or use other sediment filters or traps.
- Store toxic material under cover during precipitation events and when not in use. A cover would include tarps or other temporary cover material.

Mowing, Trimming, and Planting

- Dispose of leaves, sticks, or other collected vegetation as garbage, by composting or at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures when soils are exposed.
- Place temporarily stockpiled material away from watercourses and drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.
- Consider an alternative approach when bailing out muddy water: do not put it in the storm drain; pour over landscaped areas.
- Use hand weeding where practical.

Fertilizer and Pesticide Management

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.
- Use less toxic pesticides that will do the job when applicable. Avoid use of copper-based pesticides if possible.
- Do not use pesticides if rain is expected.
- Do not mix or prepare pesticides for application near storm drains.
- Use the minimum amount needed for the job.
- Calibrate fertilizer distributors to avoid excessive application.
- Employ techniques to minimize off-target application (e.g., spray drift) of pesticides, including consideration of alternative application techniques.
- Apply pesticides only when wind speeds are low.
- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
- Irrigate slowly to prevent runoff and then only as much as is needed.
- Clean pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- Dispose of empty pesticide containers according to the instructions on the container label.

- Use up the pesticides. Rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- Implement storage requirements for pesticide products with guidance from the local fire department and County Agricultural Commissioner. Provide secondary containment for pesticides.

Inspection

- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering and repair leaks in the irrigation system as soon as they are observed.

Training

- Educate and train employees on pesticide use and in pesticide application techniques to prevent pollution.
- Train employees and contractors in proper techniques for spill containment and cleanup.
- Be sure the frequency of training takes into account the complexity of the operations and the nature of the staff.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers (if desired) near the storage area where it will be readily accessible.
- Have employees trained in spill containment and cleanup present during the loading/unloading of dangerous wastes, liquid chemicals, or other materials.
- Familiarize employees with the Spill Prevention Control and Countermeasure Plan.
- Clean up spills immediately.

Other Considerations

Alternative pest/weed controls may not be available, suitable, or effective in many cases.

Requirements

Costs

- Cost will vary depending on the type and size of facility.
- Overall costs should be low in comparison to other BMPs.

Maintenance

Sweep paved areas regularly to collect loose particles. Wipe up spills with rags and other absorbent material immediately, do not hose down the area to a storm drain.

Supplemental Information

Further Detail of the BMP

Fire Sprinkler Line Flushing

Building fire sprinkler line flushing may be a source of non-stormwater runoff pollution. The water entering the system is usually potable water, though in some areas it may be non-potable reclaimed wastewater. There are subsequent factors that may drastically reduce the quality of the water in such systems. Black iron pipe is usually used since it is cheaper than potable piping, but it is subject to rusting and results in lower quality water. Initially, the black iron pipe has an oil coating to protect it from rusting between manufacture and installation; this will contaminate the water from the first flush but not from subsequent flushes. Nitrates, poly-phosphates and other corrosion inhibitors, as well as fire suppressants and antifreeze may be added to the sprinkler water system. Water generally remains in the sprinkler system a long time (typically a year) and between flushes may accumulate iron, manganese, lead, copper, nickel, and zinc. The water generally becomes anoxic and contains living and dead bacteria and breakdown products from chlorination. This may result in a significant BOD problem and the water often smells. Consequently dispose fire sprinkler line flush water into the sanitary sewer. Do not allow discharge to storm drain or infiltration due to potential high levels of pollutants in fire sprinkler line water.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

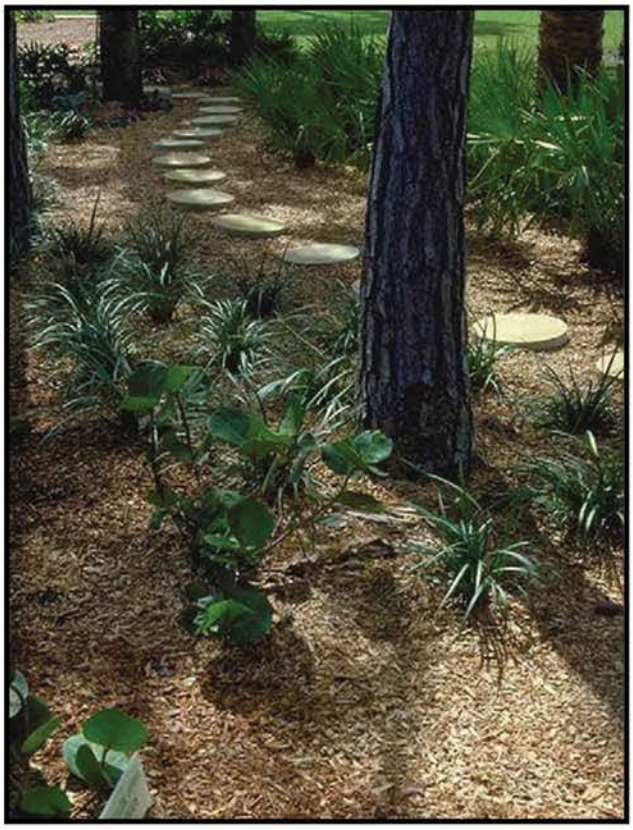
Mobile Cleaners Pilot Program: Final Report. 1997. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Site Design & Landscape Planning SD-10



Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- ☑ Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Each project site possesses unique topographic, hydrologic, and vegetative features, some of which are more suitable for development than others. Integrating and incorporating appropriate landscape planning methodologies into the project design is the most effective action that can be done to minimize surface and groundwater contamination from stormwater.

Approach

Landscape planning should couple consideration of land suitability for urban uses with consideration of community goals and projected growth. Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for site design and landscapes planning should conform to applicable standards and specifications of agencies with jurisdiction and be consistent with applicable General Plan and Local Area Plan policies.

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Designing New Installations

Begin the development of a plan for the landscape unit with attention to the following general principles:

- Formulate the plan on the basis of clearly articulated community goals. Carefully identify conflicts and choices between retaining and protecting desired resources and community growth.

- Map and assess land suitability for urban uses. Include the following landscape features in the assessment: wooded land, open unwooded land, steep slopes, erosion-prone soils, foundation suitability, soil suitability for waste disposal, aquifers, aquifer recharge areas, wetlands, floodplains, surface waters, agricultural lands, and various categories of urban land use. When appropriate, the assessment can highlight outstanding local or regional resources that the community determines should be protected (e.g., a scenic area, recreational area, threatened species habitat, farmland, fish run). Mapping and assessment should recognize not only these resources but also additional areas needed for their sustenance.

Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Conserve Natural Areas during Landscape Planning

If applicable, the following items are required and must be implemented in the site layout during the subdivision design and approval process, consistent with applicable General Plan and Local Area Plan policies:

- Cluster development on least-sensitive portions of a site while leaving the remaining land in a natural undisturbed condition.

- Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection.

- Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants.

- Promote natural vegetation by using parking lot islands and other landscaped areas.

- Preserve riparian areas and wetlands.

Maximize Natural Water Storage and Infiltration Opportunities Within the Landscape Unit

- Promote the conservation of forest cover. Building on land that is already deforested affects basin hydrology to a lesser extent than converting forested land. Loss of forest cover reduces interception storage, detention in the organic forest floor layer, and water losses by evapotranspiration, resulting in large peak runoff increases and either their negative effects or the expense of countering them with structural solutions.

- Maintain natural storage reservoirs and drainage corridors, including depressions, areas of permeable soils, swales, and intermittent streams. Develop and implement policies and

regulations to discourage the clearing, filling, and channelization of these features. Utilize them in drainage networks in preference to pipes, culverts, and engineered ditches.

- Evaluating infiltration opportunities by referring to the stormwater management manual for the jurisdiction and pay particular attention to the selection criteria for avoiding groundwater contamination, poor soils, and hydrogeological conditions that cause these facilities to fail. If necessary, locate developments with large amounts of impervious surfaces or a potential to produce relatively contaminated runoff away from groundwater recharge areas.

Protection of Slopes and Channels during Landscape Design

- Convey runoff safely from the tops of slopes.
- Avoid disturbing steep or unstable slopes.
- Avoid disturbing natural channels.
- Stabilize disturbed slopes as quickly as possible.
- Vegetate slopes with native or drought tolerant vegetation.
- Control and treat flows in landscaping and/or other controls prior to reaching existing natural drainage systems.
- Stabilize temporary and permanent channel crossings as quickly as possible, and ensure that increases in run-off velocity and frequency caused by the project do not erode the channel.
- Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters.
- Line on-site conveyance channels where appropriate, to reduce erosion caused by increased flow velocity due to increases in tributary impervious area. The first choice for linings should be grass or some other vegetative surface, since these materials not only reduce runoff velocities, but also provide water quality benefits from filtration and infiltration. If velocities in the channel are high enough to erode grass or other vegetative linings, riprap, concrete, soil cement, or geo-grid stabilization are other alternatives.
- Consider other design principles that are comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Redevelopment may present significant opportunity to add features which had not previously been implemented. Examples include incorporation of depressions, areas of permeable soils, and swales in newly redeveloped areas. While some site constraints may exist due to the status of already existing infrastructure, opportunities should not be missed to maximize infiltration, slow runoff, reduce impervious areas, disconnect directly connected impervious areas.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Stormwater Management Manual for Western Washington, Washington State Department of Ecology, August 2001.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Roof Runoff Controls SD-11



Rain Garden

Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Various roof runoff controls are available to address stormwater that drains off rooftops. The objective is to reduce the total volume and rate of runoff from individual lots, and retain the pollutants on site that may be picked up from roofing materials and atmospheric deposition. Roof runoff controls consist of directing the roof runoff away from paved areas and mitigating flow to the storm drain system through one of several general approaches: cisterns or rain barrels; dry wells or infiltration trenches; pop-up emitters, and foundation planting. The first three approaches require the roof runoff to be contained in a gutter and downspout system. Foundation planting provides a vegetated strip under the drip line of the roof.

Approach

Design of individual lots for single-family homes as well as lots for higher density residential and commercial structures should consider site design provisions for containing and infiltrating roof runoff or directing roof runoff to vegetative swales or buffer areas. Retained water can be reused for watering gardens, lawns, and trees. Benefits to the environment include reduced demand for potable water used for irrigation, improved stormwater quality, increased groundwater recharge, decreased runoff volume and peak flows, and decreased flooding potential.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Designing New Installations

Cisterns or Rain Barrels

One method of addressing roof runoff is to direct roof downspouts to cisterns or rain barrels. A cistern is an above ground storage vessel with either a manually operated valve or a permanently open outlet. Roof runoff is temporarily stored and then released for irrigation or infiltration between storms. The number of rain

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barrels needed is a function of the rooftop area. Some low impact developers recommend that every house have at least 2 rain barrels, with a minimum storage capacity of 1000 liters. Roof barrels serve several purposes including mitigating the first flush from the roof which has a high volume, amount of contaminants, and thermal load. Several types of rain barrels are commercially available. Consideration must be given to selecting rain barrels that are vector proof and childproof. In addition, some barrels are designed with a bypass valve that filters out grit and other contaminants and routes overflow to a soak-away pit or rain garden.

If the cistern has an operable valve, the valve can be closed to store stormwater for irrigation or infiltration between storms. This system requires continual monitoring by the resident or grounds crews, but provides greater flexibility in water storage and metering. If a cistern is provided with an operable valve and water is stored inside for long periods, the cistern must be covered to prevent mosquitoes from breeding.

A cistern system with a permanently open outlet can also provide for metering stormwater runoff. If the cistern outlet is significantly smaller than the size of the downspout inlet (say ¼ to ½ inch diameter), runoff will build up inside the cistern during storms, and will empty out slowly after peak intensities subside. This is a feasible way to mitigate the peak flow increases caused by rooftop impervious land coverage, especially for the frequent, small storms.

Dry wells and Infiltration Trenches

Roof downspouts can be directed to dry wells or infiltration trenches. A dry well is constructed by excavating a hole in the ground and filling it with an open graded aggregate, and allowing the water to fill the dry well and infiltrate after the storm event. An underground connection from the downspout conveys water into the dry well, allowing it to be stored in the voids. To minimize sedimentation from lateral soil movement, the sides and top of the stone storage matrix can be wrapped in a permeable filter fabric, though the bottom may remain open. A perforated observation pipe can be inserted vertically into the dry well to allow for inspection and maintenance.

In practice, dry wells receiving runoff from single roof downspouts have been successful over long periods because they contain very little sediment. They must be sized according to the amount of rooftop runoff received, but are typically 4 to 5 feet square, and 2 to 3 feet deep, with a minimum of 1-foot soil cover over the top (maximum depth of 10 feet).

To protect the foundation, dry wells must be set away from the building at least 10 feet. They must be installed in solids that accommodate infiltration. In poorly drained soils, dry wells have very limited feasibility.

Infiltration trenches function in a similar manner and would be particularly effective for larger roof areas. An infiltration trench is a long, narrow, rock-filled trench with no outlet that receives stormwater runoff. These are described under Treatment Controls.

Pop-up Drainage Emitter

Roof downspouts can be directed to an underground pipe that daylights some distance from the building foundation, releasing the roof runoff through a pop-up emitter. Similar to a pop-up irrigation head, the emitter only opens when there is flow from the roof. The emitter remains flush to the ground during dry periods, for ease of lawn or landscape maintenance.

Foundation Planting

Landscape planting can be provided around the base to allow increased opportunities for stormwater infiltration and protect the soil from erosion caused by concentrated sheet flow coming off the roof. Foundation plantings can reduce the physical impact of water on the soil and provide a subsurface matrix of roots that encourage infiltration. These plantings must be sturdy enough to tolerate the heavy runoff sheet flows, and periodic soil saturation.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Supplemental Information

Examples

- City of Ottawa's Water Links Surface –Water Quality Protection Program
- City of Toronto Downspout Disconnection Program
- City of Boston, MA, Rain Barrel Demonstration Program

Other Resources

Hager, Marty Catherine, Stormwater, "Low-Impact Development", January/February 2003. www.stormh2o.com

Low Impact Urban Design Tools, Low Impact Development Design Center, Beltsville, MD. www.lid-stormwater.net

Start at the Source, Bay Area Stormwater Management Agencies Association, 1999 Edition

Efficient Irrigation SD-12



Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Irrigation water provided to landscaped areas may result in excess irrigation water being conveyed into stormwater drainage systems.

Approach

Project plan designs for development and redevelopment should include application methods of irrigation water that minimize runoff of excess irrigation water into the stormwater conveyance system.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Designing New Installations

The following methods to reduce excessive irrigation runoff should be considered, and incorporated and implemented where determined applicable and feasible by the Permittee:

- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Design irrigation systems to each landscape area's specific water requirements.
- Include design featuring flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
- Implement landscape plans consistent with County or City water conservation resolutions, which may include provision of water sensors, programmable irrigation times (for short cycles), etc.

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- Design timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water drainage system.
- Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Choose plants with low irrigation requirements (for example, native or drought tolerant species). Consider design features such as:
  - Using mulches (such as wood chips or bar) in planter areas without ground cover to minimize sediment in runoff
  - Installing appropriate plant materials for the location, in accordance with amount of sunlight and climate, and use native plant materials where possible and/or as recommended by the landscape architect
  - Leaving a vegetative barrier along the property boundary and interior watercourses, to act as a pollutant filter, where appropriate and feasible
  - Choosing plants that minimize or eliminate the use of fertilizer or pesticides to sustain growth
- Employ other comparable, equally effective methods to reduce irrigation water runoff.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Storm Drain Signage SD-13



Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Waste materials dumped into storm drain inlets can have severe impacts on receiving and ground waters. Posting notices regarding discharge prohibitions at storm drain inlets can prevent waste dumping. Storm drain signs and stencils are highly visible source controls that are typically placed directly adjacent to storm drain inlets.

Approach

The stencil or affixed sign contains a brief statement that prohibits dumping of improper materials into the urban runoff conveyance system. Storm drain messages have become a popular method of alerting the public about the effects of and the prohibitions against waste disposal.

Suitable Applications

Stencils and signs alert the public to the destination of pollutants discharged to the storm drain. Signs are appropriate in residential, commercial, and industrial areas, as well as any other area where contributions or dumping to storm drains is likely.

Design Considerations

Storm drain message markers or placards are recommended at all storm drain inlets within the boundary of a development project. The marker should be placed in clear sight facing toward anyone approaching the inlet from either side. All storm drain inlet locations should be identified on the development site map.

Designing New Installations

The following methods should be considered for inclusion in the project design and show on project plans:

- Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language. Examples include "NO DUMPING

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– DRAINS TO OCEAN" and/or other graphical icons to discourage illegal dumping.

- Post signs with prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.

Note - Some local agencies have approved specific signage and/or storm drain message placards for use. Consult local agency stormwater staff to determine specific requirements for placard types and methods of application.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. If the project meets the definition of "redevelopment", then the requirements stated under " designing new installations" above should be included in all project design plans.

Additional Information

Maintenance Considerations

- Legibility of markers and signs should be maintained. If required by the agency with jurisdiction over the project, the owner/operator or homeowner's association should enter into a maintenance agreement with the agency or record a deed restriction upon the property title to maintain the legibility of placards or signs.

Placement

- Signage on top of curbs tends to weather and fade.

- Signage on face of curbs tends to be worn by contact with vehicle tires and sweeper brooms.

Supplemental Information

Examples

- Most MS4 programs have storm drain signage programs. Some MS4 programs will provide stencils, or arrange for volunteers to stencil storm drains as part of their outreach program.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Maintenance Bays & Docks SD-31



Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Several measures can be taken to prevent operations at maintenance bays and loading docks from contributing a variety of toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to the stormwater conveyance system.

Approach

In designs for maintenance bays and loading docks, containment is encouraged. Preventative measures include overflow containment structures and dead-end sumps. However, in the case of loading docks from grocery stores and warehouse/distribution centers, engineered infiltration systems may be considered.

Suitable Applications

Appropriate applications include commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for vehicle maintenance and repair are governed by Building and Fire Codes, and by current local agency ordinances, and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code requirements.

Designing New Installations

Designs of maintenance bays should consider the following:

- Repair/maintenance bays and vehicle parts with fluids should be indoors; or designed to preclude urban run-on and runoff.
- Repair/maintenance floor areas should be paved with Portland cement concrete (or equivalent smooth impervious surface).

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- Repair/maintenance bays should be designed to capture all wash water leaks and spills. Provide impermeable berms, drop inlets, trench catch basins, or overflow containment structures around repair bays to prevent spilled materials and wash-down waters form entering the storm drain system. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.
- Other features may be comparable and equally effective.

The following designs of loading/unloading dock areas should be considered:

- Loading dock areas should be covered, or drainage should be designed to preclude urban run-on and runoff.
- Direct connections into storm drains from depressed loading docks (truck wells) are prohibited.
- Below-grade loading docks from grocery stores and warehouse/distribution centers of fresh food items should drain through water quality inlets, or to an engineered infiltration system, or an equally effective alternative. Pre-treatment may also be required.
- Other features may be comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Stormwater and non-stormwater will accumulate in containment areas and sumps with impervious surfaces. Contaminated accumulated water must be disposed of in accordance with applicable laws and cannot be discharged directly to the storm drain or sanitary sewer system without the appropriate permit.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Trash Storage Areas SD-32

Description

Trash storage areas are areas where a trash receptacle (s) are located for use as a repository for solid wastes. Stormwater runoff from areas where trash is stored or disposed of can be polluted. In addition, loose trash and debris can be easily transported by water or wind into nearby storm drain inlets, channels, and/or creeks. Waste handling operations that may be sources of stormwater pollution include dumpsters, litter control, and waste piles.

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Approach

This fact sheet contains details on the specific measures required to prevent or reduce pollutants in stormwater runoff associated with trash storage and handling. Preventative measures including enclosures, containment structures, and impervious pavements to mitigate spills, should be used to reduce the likelihood of contamination.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Design requirements for waste handling areas are governed by Building and Fire Codes, and by current local agency ordinances and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code and ordinance requirements. Hazardous waste should be handled in accordance with legal requirements established in Title 22, California Code of Regulation.

Wastes from commercial and industrial sites are typically hauled by either public or commercial carriers that may have design or access requirements for waste storage areas. The design criteria in this fact sheet are recommendations and are not intended to be in conflict with requirements established by the waste hauler. The waste hauler should be contacted prior to the design of your site trash collection areas. Conflicts or issues should be discussed with the local agency.

Designing New Installations

Trash storage areas should be designed to consider the following structural or treatment control BMPs:

- Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on. This might include berming or grading the waste handling area to prevent run-on of stormwater.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash.

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- Use lined bins or dumpsters to reduce leaking of liquid waste.
- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.
- Pave trash storage areas with an impervious surface to mitigate spills.
- Do not locate storm drains in immediate vicinity of the trash storage area.
- Post signs on all dumpsters informing users that hazardous materials are not to be disposed of therein.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Maintenance Considerations

The integrity of structural elements that are subject to damage (i.e., screens, covers, and signs) must be maintained by the owner/operator. Maintenance agreements between the local agency and the owner/operator may be required. Some agencies will require maintenance deed restrictions to be recorded of the property title. If required by the local agency, maintenance agreements or deed restrictions must be executed by the owner/operator before improvement plans are approved.

Other Resources

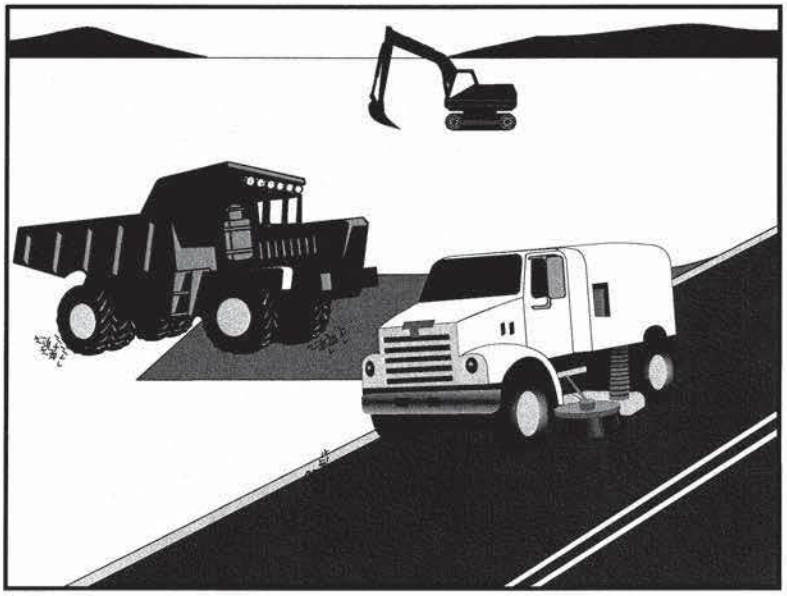
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Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Street Sweeping and Vacuuming SE-7



Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.
- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.

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- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from $58/hour (3 yd^3 hopper) to $88/hour (9 yd^3 hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

Inspection and Maintenance

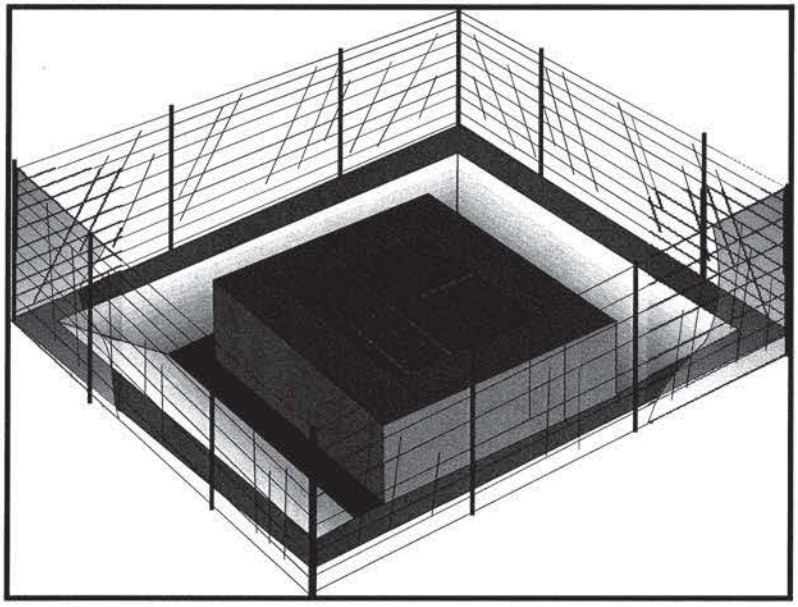
- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

Storm Drain Inlet Protection SE-10



Categories

EC	Erosion Control	
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☒
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-14 Biofilter Bags

Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Suitable Applications

Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Limitations

- Drainage area should not exceed 1 acre.
- In general straw bales should not be used as inlet protection.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.

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- Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use other onsite sediment trapping techniques in conjunction with inlet protection.
- Frequent maintenance is required.
- Limit drainage area to 1 acre maximum. For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps.
- Excavated drop inlet sediment traps are appropriate where relatively heavy flows are expected, and overflow capability is needed.

Implementation

General

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap and/or used in conjunction with other drainage control, erosion control, and sediment control BMPs to protect the site. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Alternative methods are available in addition to the methods described/shown herein such as prefabricated inlet insert devices, or gutter protection devices.

Design and Layout

Identify existing and planned storm drain inlets that have the potential to receive sediment-laden surface runoff. Determine if storm drain inlet protection is needed and which method to use.

- The key to successful and safe use of storm drain inlet protection devices is to know where runoff that is directed toward the inlet to be protected will pond or be diverted as a result of installing the protection device.
  - Determine the acceptable location and extent of ponding in the vicinity of the drain inlet. The acceptable location and extent of ponding will influence the type and design of the storm drain inlet protection device.
  - Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.
- The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.

- Six types of inlet protection are presented below. However, it is recognized that other effective methods and proprietary devices exist and may be selected.
  - Silt Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.
  - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3).
  - Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding.
  - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
  - Temporary Geotextile Storm drain Inserts: Different products provide different features. Refer to manufacturer details for targeted pollutants and additional features.
  - Biofilter Bag Barrier: Used to create a small retention area upstream of inlets and can be located on pavement or soil. Biofilter bags slowly filter runoff allowing sediment to settle out. Appropriate for flows under 0.5 cfs.
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
- Provide area around the inlet for water to pond without flooding structures and property.
- Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

Installation

- ***DI Protection Type 1 - Silt Fence*** - Similar to constructing a silt fence; see BMP SE-1, Silt Fence. Do not place fabric underneath the inlet grate since the collected sediment may fall into the drain inlet when the fabric is removed or replaced and water flow through the grate will be blocked resulting in flooding. See typical Type 1 installation details at the end of this fact sheet.
  1. Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.
  2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes should be at least 48 in.
  3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in.
  4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden stakes. Use heavy-duty wire staples at least 1 in. in length.

5. Backfill the trench with gravel or compacted earth all the way around.

- ***DI Protection Type 2 - Excavated Drop Inlet Sediment Trap*** - Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd^3/acre of drainage area. See typical Type 2 installation details at the end of this fact sheet.

- ***DI Protection Type 3 - Gravel bag*** - Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be used due to their high permeability. See typical Type 3 installation details at the end of this fact sheet.

  1. Construct on gently sloping street.

  2. Leave room upstream of barrier for water to pond and sediment to settle.

  3. Place several layers of gravel bags – overlapping the bags and packing them tightly together.

  4. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10 year storm) should not overtop the curb.

- ***DI Protection Type 4 – Block and Gravel Filter*** - Block and gravel filters are suitable for curb inlets commonly used in residential, commercial, and industrial construction. See typical Type 4 installation details at the end of this fact sheet.

  1. Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place woven geotextile over the wire mesh.

  2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high.

  3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with 0.5 in. opening.

  4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in.

- ***DI Protection Type 5 – Temporary Geotextile Insert (proprietary)*** – Many types of temporary inserts are available. Most inserts fit underneath the grate of a drop inlet or inside of a curb inlet and are fastened to the outside of the grate or curb. These inserts are removable and many can be cleaned and reused. Installation of these inserts differs between manufacturers. Please refer to manufacturer instruction for installation of proprietary devices.

- ***DI Protection Type 6 - Biofilter bags*** – Biofilter bags may be used as a substitute for gravel bags in low-flow situations. Biofilter bags should conform to specifications detailed in SE-14, Biofilter bags.

    1. Construct in a gently sloping area.
    2. Biofilter bags should be placed around inlets to intercept runoff flows.
    3. All bag joints should overlap by 6 in.
    4. Leave room upstream for water to pond and for sediment to settle out.
    5. Stake bags to the ground as described in the following detail. Stakes may be omitted if bags are placed on a paved surface.

Costs

- Average annual cost for installation and maintenance of DI Type 1-4 and 6 (one year useful life) is $200 per inlet.
- Temporary geotextile inserts are proprietary and cost varies by region. These inserts can often be reused and may have greater than 1 year of use if maintained and kept undamaged. Average cost per insert ranges from $50-75 plus installation, but costs can exceed $100. This cost does not include maintenance.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Silt Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes. At a minimum, remove the sediment behind the fabric fence when accumulation reaches one-third the height of the fence or barrier height.
- Gravel Filters. If the gravel becomes clogged with sediment, it should be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Inspect and maintain temporary geotextile insert devices according to manufacturer's specifications.
- Remove storm drain inlet protection once the drainage area is stabilized.

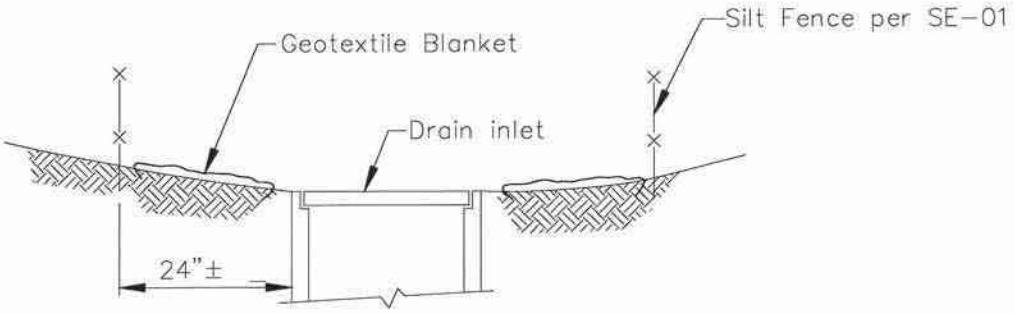
- Clean and regrade area around the inlet and clean the inside of the storm drain inlet, as it should be free of sediment and debris at the time of final inspection.

References

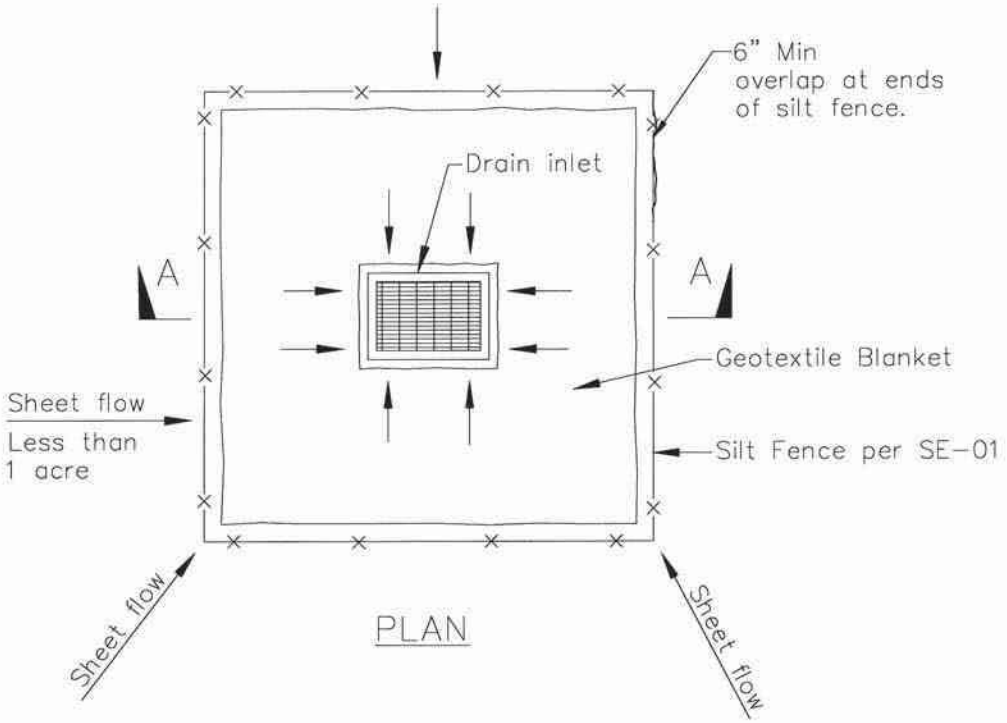
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Stormwater Management Manual for The Puget Sound Basin, Washington State Department of Ecology, Public Review Draft, 1991.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



SECTION A–A

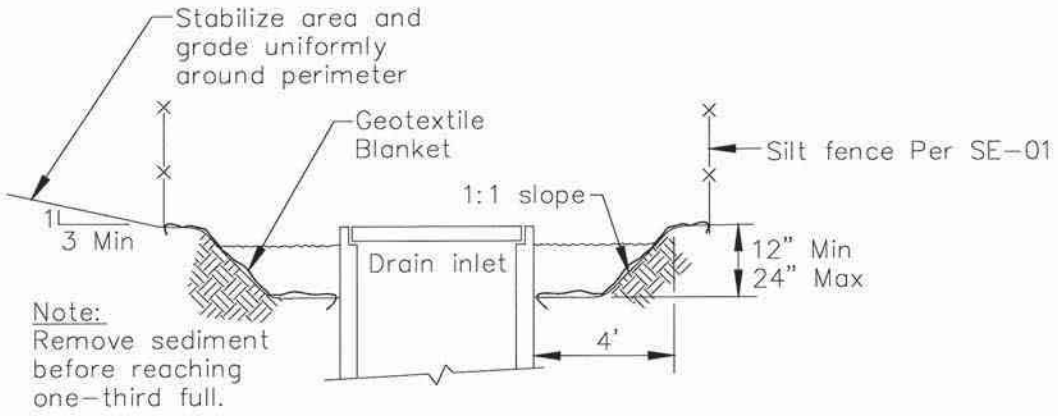


PLAN

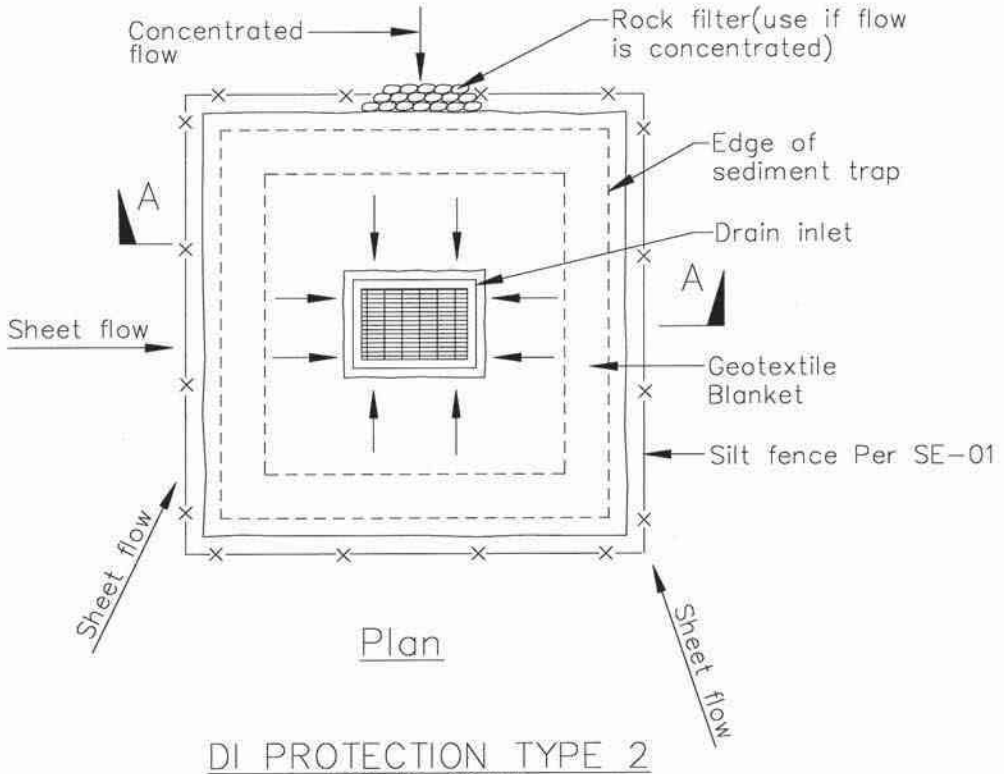
DI PROTECTION TYPE 1
NOT TO SCALE

NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.



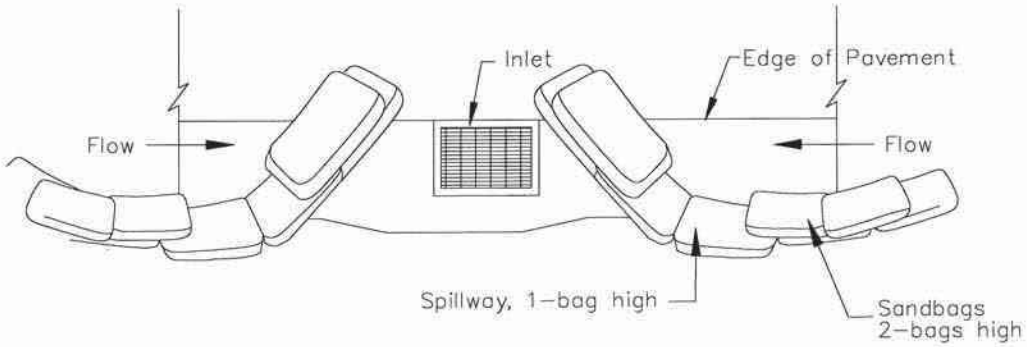
Section A-A



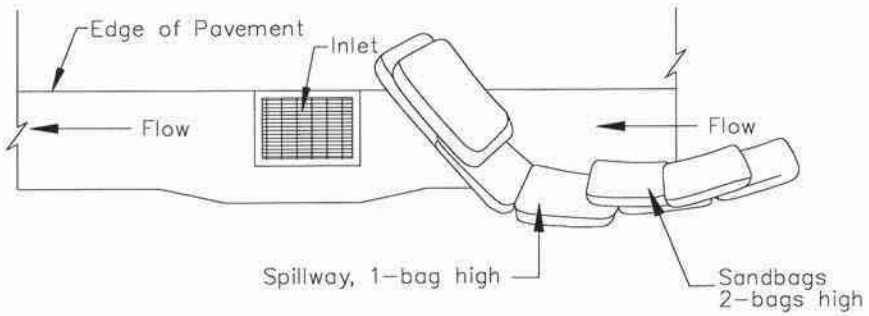
Plan

DI PROTECTION TYPE 2
NOT TO SCALE

Notes
1. For use in cleared and grubbed and in graded areas.
2. Shape basin so that longest inflow area faces longest length of trap.
3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.



TYPICAL PROTECTION FOR INLET ON SUMP

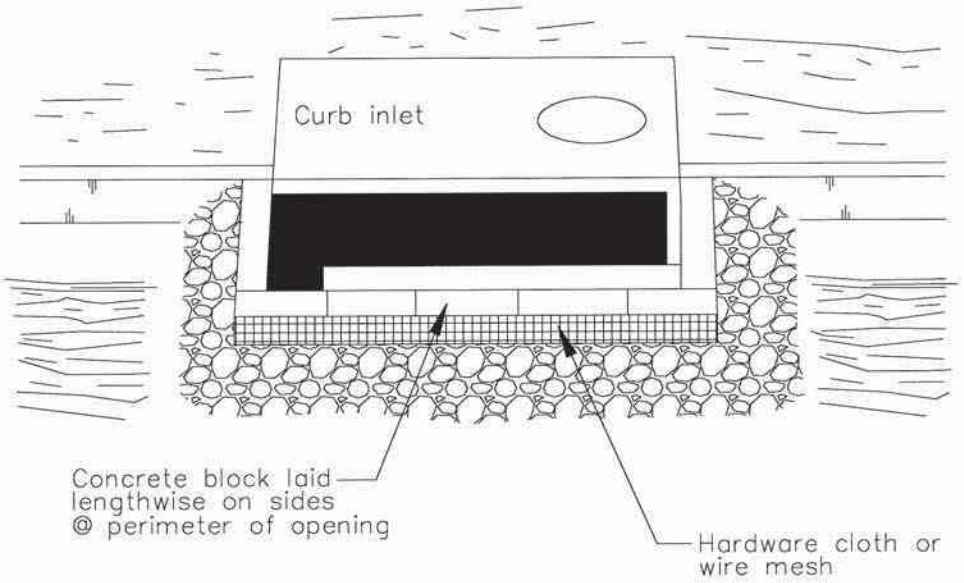


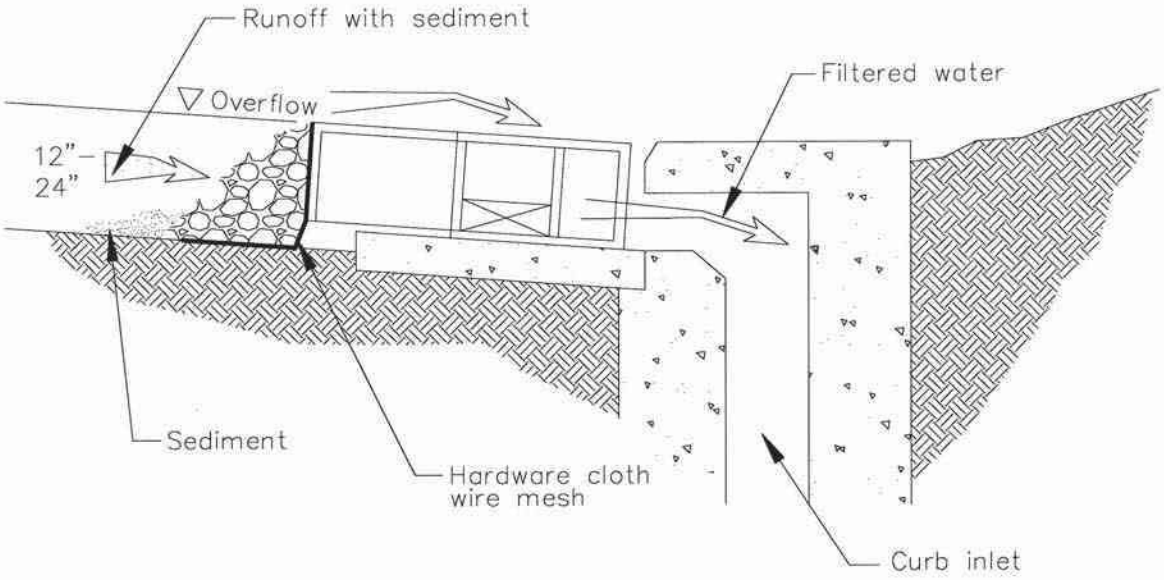
TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.

DI PROTECTION TYPE 3
NOT TO SCALE





DI PROTECTION – TYPE 4
NOT TO SCALE

Drain Inserts MP-52

Description

Drain inserts are manufactured filters or fabric placed in a drop inlet to remove sediment and debris. There are a multitude of inserts of various shapes and configurations, typically falling into one of three different groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. The fabric may be attached to a frame or the grate of the inlet holds the sock. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene "bag" is placed in the wire mesh box. The bag takes the form of the box. Most box products are one box; that is, the setting area and filtration through media occur in the same box. Some products consist of one or more trays or mesh grates. The trays may hold different types of media. Filtration media vary by manufacturer. Types include polypropylene, porous polymer, treated cellulose, and activated carbon.

California Experience

The number of installations is unknown but likely exceeds a thousand. Some users have reported that these systems require considerable maintenance to prevent plugging and bypass.

Advantages

- Does not require additional space as inserts as the drain inlets are already a component of the standard drainage systems.
- Easy access for inspection and maintenance.
- As there is no standing water, there is little concern for mosquito breeding.
- A relatively inexpensive retrofit option.

Limitations

Performance is likely significantly less than treatment systems that are located at the end of the drainage system such as ponds and vaults. Usually not suitable for large areas or areas with trash or leaves than can plug the insert.

Design and Sizing Guidelines

Refer to manufacturer's guidelines. Drain inserts come any many configurations but can be placed into three general groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. The fabric may be attached to a frame or the grate of the inlet holds the sock. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene "bag" is placed in the wire mesh box. The bag takes the form of the box. Most box products are

Design Considerations

- Use with other BMPs
- Fit and Seal Capacity within Inlet

Targeted Constituents

- ✓ Sediment
- ✓ Nutrients
- ✓ Trash
- ✓ Metals
- Bacteria
- ✓ Oil and Grease
- ✓ Organics

Removal Effectiveness

See New Development and Redevelopment Handbook-Section 5.

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one box; that is, the setting area and filtration through media occurs in the same box. One manufacturer has a double-box. Stormwater enters the first box where setting occurs. The stormwater flows into the second box where the filter media is located. Some products consist of one or more trays or mesh grates. The trays can hold different types of media. Filtration media vary with the manufacturer: types include polypropylene, porous polymer, treated cellulose, and activated carbon.

Construction/Inspection Considerations

Be certain that installation is done in a manner that makes certain that the stormwater enters the unit and does not leak around the perimeter. Leakage between the frame of the insert and the frame of the drain inlet can easily occur with vertical (drop) inlets.

Performance

Few products have performance data collected under field conditions.

Siting Criteria

It is recommended that inserts be used only for retrofit situations or as pretreatment where other treatment BMPs presented in this section area used.

Additional Design Guidelines

Follow guidelines provided by individual manufacturers.

Maintenance

Likely require frequent maintenance, on the order of several times per year.

Cost

- The initial cost of individual inserts ranges from less than $100 to about $2,000. The cost of using multiple units in curb inlet drains varies with the size of the inlet.
- The low cost of inserts may tend to favor the use of these systems over other, more effective treatment BMPs. However, the low cost of each unit may be offset by the number of units that are required, more frequent maintenance, and the shorter structural life (and therefore replacement).

References and Sources of Additional Information

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Interagency Catch Basin Insert Committee, Evaluation of Commercially-Available Catch Basin Inserts for the Treatment of Stormwater Runoff from Developed Sites, 1995

Larry Walker Associates, June 1998, NDMP Inlet/In-Line Control Measure Study Report

Manufacturers literature

Santa Monica (City), Santa Monica Bay Municipal Stormwater/Urban Runoff Project - Evaluation of Potential Catch basin Retrofits, Woodward Clyde, September 24, 1998

Woodward Clyde, June 11, 1996, Parking Lot Monitoring Report, Santa Clara Valley Nonpoint Source Pollution Control Program.

Infiltration Basin TC-11



Design Considerations

- Soil for Infiltration
- Slope
- Aesthetics

Targeted Constituents

☑	Sediment	■
☑	Nutrients	■
☑	Trash	■
☑	Metals	■
☑	Bacteria	■
☑	Oil and Grease	■
☑	Organics	■

Legend ***(Removal Effectiveness)***

● Low ■ High

▲ Medium

Description

An infiltration basin is a shallow impoundment that is designed to infiltrate stormwater. Infiltration basins use the natural filtering ability of the soil to remove pollutants in stormwater runoff. Infiltration facilities store runoff until it gradually exfiltrates through the soil and eventually into the water table. This practice has high pollutant removal efficiency and can also help recharge groundwater, thus helping to maintain low flows in stream systems. Infiltration basins can be challenging to apply on many sites, however, because of soils requirements. In addition, some studies have shown relatively high failure rates compared with other management practices.

California Experience

Infiltration basins have a long history of use in California, especially in the Central Valley. Basins located in Fresno were among those initially evaluated in the National Urban Runoff Program and were found to be effective at reducing the volume of runoff, while posing little long-term threat to groundwater quality (EPA, 1983; Schroeder, 1995). Proper siting of these devices is crucial as underscored by the experience of Caltrans in siting two basins in Southern California. The basin with marginal separation from groundwater and soil permeability failed immediately and could never be rehabilitated.

Advantages

- Provides 100% reduction in the load discharged to surface waters.
- The principal benefit of infiltration basins is the approximation of pre-development hydrology during which a

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significant portion of the average annual rainfall runoff is infiltrated and evaporated rather than flushed directly to creeks.

- If the water quality volume is adequately sized, infiltration basins can be useful for providing control of channel forming (erosion) and high frequency (generally less than the 2-year) flood events.

Limitations

- May not be appropriate for industrial sites or locations where spills may occur.
- Infiltration basins require a minimum soil infiltration rate of 0.5 inches/hour, not appropriate at sites with Hydrologic Soil Types C and D.
- If infiltration rates exceed 2.4 inches/hour, then the runoff should be fully treated prior to infiltration to protect groundwater quality.
- Not suitable on fill sites or steep slopes.
- Risk of groundwater contamination in very coarse soils.
- Upstream drainage area must be completely stabilized before construction.
- Difficult to restore functioning of infiltration basins once clogged.

Design and Sizing Guidelines

- Water quality volume determined by local requirements or sized so that 85% of the annual runoff volume is captured.
- Basin sized so that the entire water quality volume is infiltrated within 48 hours.
- Vegetation establishment on the basin floor may help reduce the clogging rate.

Construction/Inspection Considerations

- Before construction begins, stabilize the entire area draining to the facility. If impossible, place a diversion berm around the perimeter of the infiltration site to prevent sediment entrance during construction or remove the top 2 inches of soil after the site is stabililized. Stabilize the entire contributing drainage area, including the side slopes, before allowing any runoff to enter once construction is complete.
- Place excavated material such that it can not be washed back into the basin if a storm occurs during construction of the facility.
- Build the basin without driving heavy equipment over the infiltration surface. Any equipment driven on the surface should have extra-wide ("low pressure") tires. Prior to any construction, rope off the infiltration area to stop entrance by unwanted equipment.
- After final grading, till the infiltration surface deeply.
- Use appropriate erosion control seed mix for the specific project and location.

Performance

As water migrates through porous soil and rock, pollutant attenuation mechanisms include precipitation, sorption, physical filtration, and bacterial degradation. If functioning properly, this approach is presumed to have high removal efficiencies for particulate pollutants and moderate removal of soluble pollutants. Actual pollutant removal in the subsurface would be expected to vary depending upon site-specific soil types. This technology eliminates discharge to surface waters except for the very largest storms; consequently, complete removal of all stormwater constituents can be assumed.

There remain some concerns about the potential for groundwater contamination despite the findings of the NURP and Nightingale (1975; 1987a,b,c; 1989). For instance, a report by Pitt et al. (1994) highlighted the potential for groundwater contamination from intentional and unintentional stormwater infiltration. That report recommends that infiltration facilities not be sited in areas where high concentrations are present or where there is a potential for spills of toxic material. Conversely, Schroeder (1995) reported that there was no evidence of groundwater impacts from an infiltration basin serving a large industrial catchment in Fresno, CA.

Siting Criteria

The key element in siting infiltration basins is identifying sites with appropriate soil and hydrogeologic properties, which is critical for long term performance. In one study conducted in Prince George's County, Maryland (Galli, 1992), all of the infiltration basins investigated clogged within 2 years. It is believed that these failures were for the most part due to allowing infiltration at sites with rates of less than 0.5 in/hr, basing siting on soil type rather than field infiltration tests, and poor construction practices that resulted in soil compaction of the basin invert.

A study of 23 infiltration basins in the Pacific Northwest showed better long-term performance in an area with highly permeable soils (Hilding, 1996). In this study, few of the infiltration basins had failed after 10 years. Consequently, the following guidelines for identifying appropriate soil and subsurface conditions should be rigorously adhered to.

- Determine soil type (consider RCS soil type 'A, B or C' only) from mapping and consult USDA soil survey tables to review other parameters such as the amount of silt and clay, presence of a restrictive layer or seasonal high water table, and estimated permeability. The soil should not have more than 30% clay or more than 40% of clay and silt combined. Eliminate sites that are clearly unsuitable for infiltration.

- Groundwater separation should be at least 3 m from the basin invert to the measured ground water elevation. There is concern at the state and regional levels of the impact on groundwater quality from infiltrated runoff, especially when the separation between groundwater and the surface is small.

- Location away from buildings, slopes and highway pavement (greater than 6 m) and wells and bridge structures (greater than 30 m). Sites constructed of fill, having a base flow or with a slope greater than 15% should not be considered.

- Ensure that adequate head is available to operate flow splitter structures (to allow the basin to be offline) without ponding in the splitter structure or creating backwater upstream of the splitter.

- Base flow should not be present in the tributary watershed.

Secondary Screening Based on Site Geotechnical Investigation

- At least three in-hole conductivity tests shall be performed using USBR 7300-89 or Bouwer-Rice procedures (the latter if groundwater is encountered within the boring), two tests at different locations within the proposed basin and the third down gradient by no more than approximately 10 m. The tests shall measure permeability in the side slopes and the bed within a depth of 3 m of the invert.

- The minimum acceptable hydraulic conductivity as measured in any of the three required test holes is 13 mm/hr. If any test hole shows less than the minimum value, the site should be disqualified from further consideration.

- Exclude from consideration sites constructed in fill or partially in fill unless no silts or clays are present in the soil boring. Fill tends to be compacted, with clays in a dispersed rather than flocculated state, greatly reducing permeability.

- The geotechnical investigation should be such that a good understanding is gained as to how the stormwater runoff will move in the soil (horizontally or vertically) and if there are any geological conditions that could inhibit the movement of water.

Additional Design Guidelines

(1) Basin Sizing - The required water quality volume is determined by local regulations or sufficient to capture 85% of the annual runoff.

(2) Provide pretreatment if sediment loading is a maintenance concern for the basin.

(3) Include energy dissipation in the inlet design for the basins. Avoid designs that include a permanent pool to reduce opportunity for standing water and associated vector problems.

(4) Basin invert area should be determined by the equation:

$$A = \frac{WQV}{kt}$$

where A = Basin invert area (m^2)

WQV = water quality volume (m^3)

k = 0.5 times the lowest field-measured hydraulic conductivity (m/hr)

t = drawdown time (48 hr)

(5) The use of vertical piping, either for distribution or infiltration enhancement shall not be allowed to avoid device classification as a Class V injection well per 40 CFR146.5(e)(4).

Maintenance

Regular maintenance is critical to the successful operation of infiltration basins. Recommended operation and maintenance guidelines include:

- Inspections and maintenance to ensure that water infiltrates into the subsurface completely (recommended infiltration rate of 72 hours or less) and that vegetation is carefully managed to prevent creating mosquito and other vector habitats.
- Observe drain time for the design storm after completion or modification of the facility to confirm that the desired drain time has been obtained.
- Schedule semiannual inspections for beginning and end of the wet season to identify potential problems such as erosion of the basin side slopes and invert, standing water, trash and debris, and sediment accumulation.
- Remove accumulated trash and debris in the basin at the start and end of the wet season.
- Inspect for standing water at the end of the wet season.
- Trim vegetation at the beginning and end of the wet season to prevent establishment of woody vegetation and for aesthetic and vector reasons.
- Remove accumulated sediment and regrade when the accumulated sediment volume exceeds 10% of the basin.
- If erosion is occurring within the basin, revegetate immediately and stabilize with an erosion control mulch or mat until vegetation cover is established.
- To avoid reversing soil development, scarification or other disturbance should only be performed when there are actual signs of clogging, rather than on a routine basis. Always remove deposited sediments before scarification, and use a hand-guided rotary tiller, if possible, or a disc harrow pulled by a very light tractor.

Cost

Infiltration basins are relatively cost-effective practices because little infrastructure is needed when constructing them. One study estimated the total construction cost at about $2 per ft (adjusted for inflation) of storage for a 0.25-acre basin (SWRPC, 1991). As with other BMPs, these published cost estimates may deviate greatly from what might be incurred at a specific site. For instance, Caltrans spent about $18/ft^3 for the two infiltration basins constructed in southern California, each of which had a water quality volume of about 0.34 ac.-ft. Much of the higher cost can be attributed to changes in the storm drain system necessary to route the runoff to the basin locations.

Infiltration basins typically consume about 2 to 3% of the site draining to them, which is relatively small. Additional space may be required for buffer, landscaping, access road, and fencing. Maintenance costs are estimated at 5 to 10% of construction costs.

One cost concern associated with infiltration practices is the maintenance burden and longevity. If improperly maintained, infiltration basins have a high failure rate. Thus, it may be necessary to replace the basin with a different technology after a relatively short period of time.

References and Sources of Additional Information

Caltrans, 2002, BMP Retrofit Pilot Program Proposed Final Report, Rpt. CTSW-RT-01-050, California Dept. of Transportation, Sacramento, CA.

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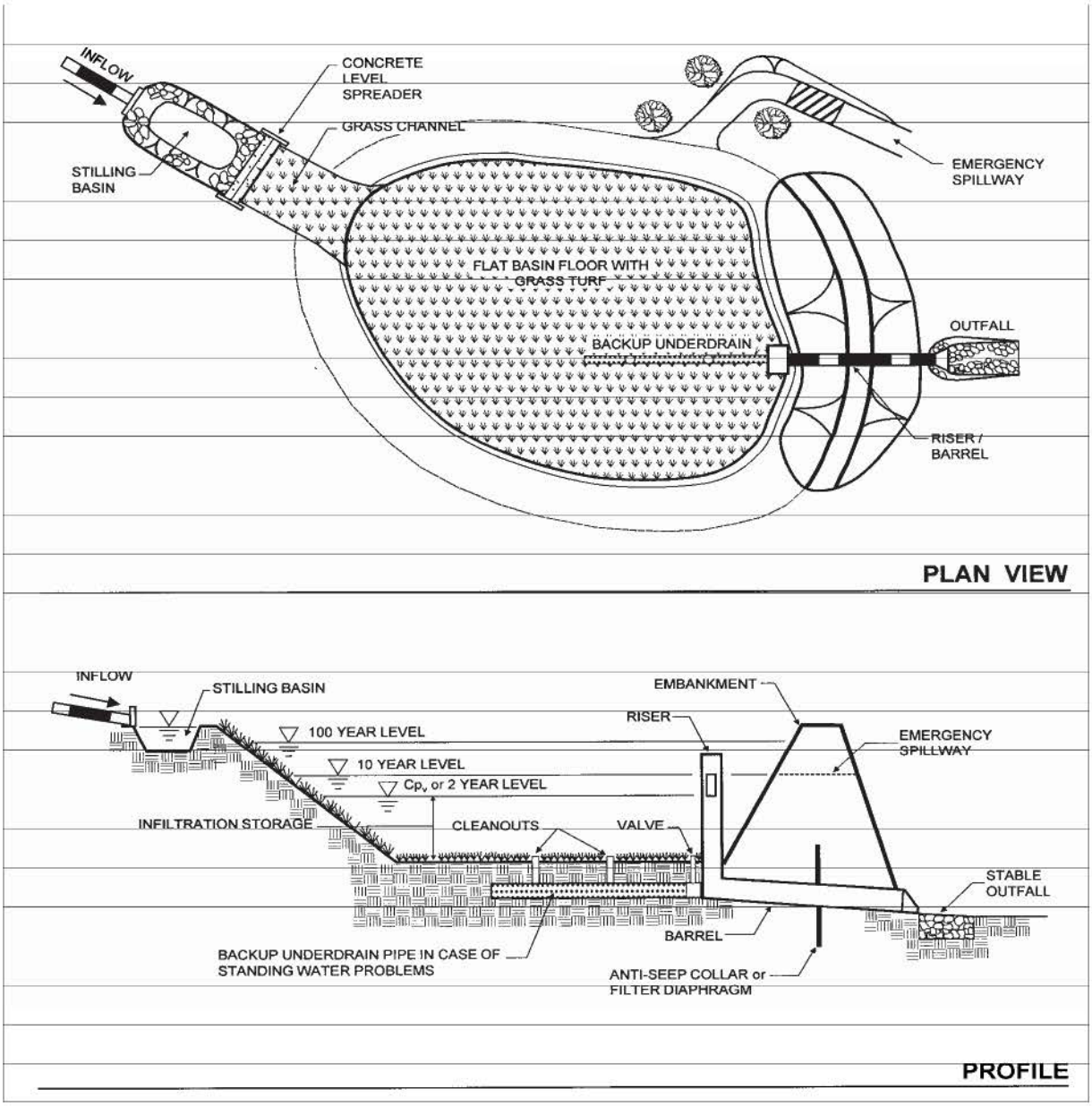
Watershed Management Institute (WMI). 1997. *Operation, Maintenance, and Management of Stormwater Management Systems*. Prepared for U.S. Environmental Protection Agency Office of Water, Washington, DC.

Information Resources

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INFLOW
CONCRETE LEVEL SPREADER
GRASS CHANNEL
STILLING BASIN
EMERGENCY SPILLWAY
FLAT BASIN FLOOR WITH GRASS TURF
OUTFALL
BACKUP UNDERDRAIN
RISER / BARREL
PLAN VIEW
INFLOW
STILLING BASIN
EMBANKMENT
RISER
100 YEAR LEVEL
EMERGENCY SPILLWAY
10 YEAR LEVEL
Cpv or 2 YEAR LEVEL
INFILTRATION STORAGE
CLEANOUTS
VALVE
STABLE OUTFALL
BARREL
BACKUP UNDERDRAIN PIPE IN CASE OF STANDING WATER PROBLEMS
ANTI-SEEP COLLAR or FILTER DIAPHRAGM
PROFILE

Bioretention TC-32



Maintenance Concerns, Objectives, and Goals

- Clogged Soil or Outlet Structures
- Invasive Species
- Vegetation/Landscape Maintenance
- Erosion
- Channelization of Flow
- Aesthetics

General Description

The bioretention best management practice (BMP) functions as a soil and plant-based filtration device that removes pollutants through a variety of physical, biological, and chemical treatment processes. These facilities normally consist of a grass buffer strip, sand bed, ponding area, organic layer or mulch layer, planting soil, and plants. The runoff's velocity is reduced by passing over or through a sand bed and is subsequently distributed evenly along a ponding area. Exfiltration of the stored water in the bioretention area planting soil into the underlying soils occurs over a period of days.

Targeted Constituents

✓	Sediment	■
✓	Nutrients	▲
✓	Trash	■
✓	Metals	■
✓	Bacteria	■
✓	Oil and Grease	■
✓	Organics	■
✓	Oxygen Demanding	■

Legend ***(Removal Effectiveness)***

● Low ■ High

▲ Medium

Inspection/Maintenance Considerations

Bioretention requires frequent landscaping maintenance, including measures to ensure that the area is functioning properly, as well as maintenance of the landscaping on the practice. In many cases, bioretention areas initially require intense maintenance, but less maintenance is needed over time. In many cases, maintenance tasks can be completed by a landscaping contractor, who may already be hired at the site. In cold climates the soil may freeze, preventing runoff from infiltrating into the planting soil.

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Inspection Activities	Suggested Frequency
■ Inspect soil and repair eroded areas.	Monthly
■ Inspect for erosion or damage to vegetation, preferably at the end of the wet season to schedule summer maintenance and before major fall runoff to be sure the strips are ready for winter. However, additional inspection after periods of heavy runoff is desirable.	Semi-annual inspection
■ Inspect to ensure grass is well established. If not, either prepare soil and reseed or replace with alternative species. Install erosion control blanket.	
■ Check for debris and litter, and areas of sediment accumulation.	
■ Inspect health of trees and shrubs.	
Maintenance Activities	**Suggested Frequency**
■ Water plants daily for 2 weeks.	At project completion
■ Remove litter and debris.	Monthly
■ Remove sediment.	As needed
■ Remulch void areas.	
■ Treat diseased trees and shrubs.	
■ Mow turf areas.	
■ Repair erosion at inflow points.	
■ Repair outflow structures.	
■ Unclog underdrain.	
■ Regulate soil pH regulation.	
■ Remove and replace dead and diseased vegetation.	Semi-annual
■ Add mulch.	Annual
■ Replace tree stakes and wires.	
■ Mulch should be replaced every 2 to 3 years or when bare spots appear. Remulch prior to the wet season.	Every 2-3 years, or as needed

Additional Information

Landscaping is critical to the function and aesthetic value of bioretention areas. It is preferable to plant the area with native vegetation, or plants that provide habitat value, where possible. Another important design feature is to select species that can withstand the hydrologic regime they will experience. At the bottom of the bioretention facility, plants that tolerate both wet and dry conditions are preferable. At the edges, which will remain primarily dry, upland species will be the most resilient. It is best to select a combination of trees, shrubs, and herbaceous materials.

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XIV.1. Hydrologic Source Control Fact Sheets (HSC)

HSC-1: Localized On-Lot Infiltration

'Localized on-lot infiltration' refers to the practice of collecting on-site runoff from small distributed areas within a catchment and diverting it to a dedicated on-site infiltration area. This technique can include disconnecting downspouts and draining sidewalks and patios into french drains, trenches, small rain gardens, or other surface depressions. For downspout disconnections and other impervious area disconnection involving dispersion over pervious surfaces, but without intentional ponding, see HSC-2: Impervious Area Dispersion.

Also known as:

- *Downspout infiltration*
- *Retention grading*
- *French drains*
- *On-lot rain gardens*



On-lot rain garden
Source: lowimpactdevelopment.org

Feasibility Screening Considerations

- 'Localized on-lot infiltration' shall meet infiltration infeasibility screening criteria to be considered for use.

Opportunity Criteria

- Runoff can be directed to and temporarily pond in pervious area depressions, rock trenches, or similar.
- Soils are adequate for infiltration or can be amended to provide an adequate infiltration rate.
- Shallow utilities are not present below infiltration areas.

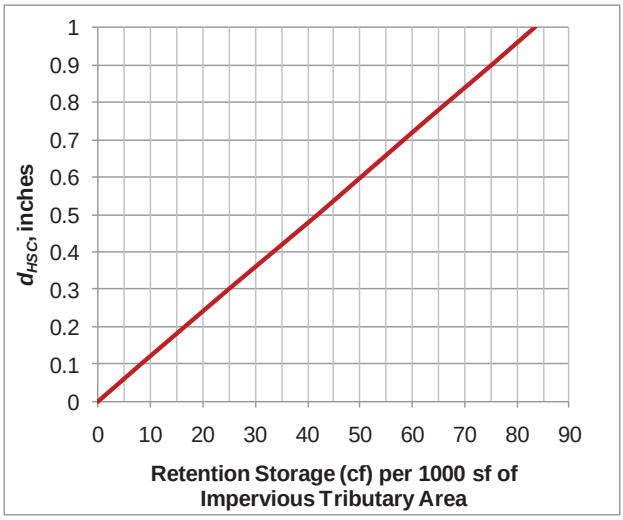
OC-Specific Design Criteria and Considerations

- ☐ A single on-lot infiltration area should not be sized to retain runoff from impervious areas greater than 4,000 sq. ft.; if the drainage area exceeds this criteria, sizing should be based on calculations for bioretention areas or infiltration trenches.
- ☐ Soils should be sufficiently permeable to eliminate ponded water within 24 hours following a 85th percentile, 24-hour storm event.
- ☐ Maximum ponding depth should be should be less than 3 inches and trench depth should be less than 1.5 feet.
- ☐ Infiltration should not be used when the depth to the mounded seasonally high table is within 5 feet of the bottom of infiltrating surface.
- ☐ Infiltration via depression storage, french drains, or rain gardens should be located greater than 8 feet from building foundations.
- ☐ Site slope should be less than 10%.
- ☐ Infiltration unit should not be located within 50 feet of slopes greater than 15 percent.
- ☐ Side slopes of rain garden or depression storage should not exceed 3H:1V.
- ☐ Effective energy dissipation and uniform flow spreading methods should be employed to prevent erosion resulting fromwater entering infiltration areas.

☐ Overflow should be located such that it does not cause erosion orand is conveyed away from structures toward the downstream conveyance and treatment system. .

Calculating HSC Retention Volume

- The retention volume provided by localized on-lot infiltration can be computed as the storage volume provided by surface ponding and the pore space within an amended soil layer or gravel trench.
- Estimate the average retention volume per 1000 square feet impervious tributary area provided by on-lot infiltration.
- Look up the storm retention depth, d_{HSC} from the chart to the right.
- The max d_{HSC} is equal to the design capture storm depth for the project site.



Configuration for Use in a Treatment Train

- Localized on-lot infiltration would typically serve as the first in a treatment train and should only be used where tributary areas do not generate significant sediment that would require pretreatment to mitigate clogging.
- The use of impervious area disconnection reduces the sizing requirement for downstream LID and/or conventional treatment control BMPs.

Additional References for Design Guidance

- LID Center – Rain Garden Design Template. http://www.lowimpactdevelopment.org/raingarden_design/
- University of Wisconsin Extension. Rain Gardens: A How-To Manual for Homeowners. http://learningstore.uwex.edu/assets/pdfs/GWQ037.pdf

HSC-2: Impervious Area Dispersion

Impervious area dispersion refers to the practice of routing runoff from impervious areas, such as rooftops, walkways, and patios onto the surface of adjacent pervious areas. Runoff is dispersed uniformly via splash block or dispersion trench and soaks into the ground as it move slowly across the surface of pervious areas. Minor ponding may occur, but it is not the intent of this practice to actively promote localized on-lot storage (See HSC-1: Localized On-Lot Infiltration).

Also known as:

- *Downspout disconnection*
- *Impervious area disconnection*
- *Sheet flow dispersion*



Simple Downspout Dispersion
Source: toronto.ca/environment/water.htm

Feasibility Screening Considerations

- Impervious area dispersion can be used where infiltration would otherwise be infeasible, however dispersion depth over landscaped areas should be limited by site-specific conditions to prevent standing water or geotechnical issues.

Opportunity Criteria

- Rooftops and other low traffic impervious surface present in drainage area.
- Soils are adequate for infiltration. If not, soils can be amended to improve capacity to absorb dispersed water (see MISC-2: Amended Soils).
- Significant pervious area present in drainage area with shallow slope
- Overflow from pervious area can be safely managed.

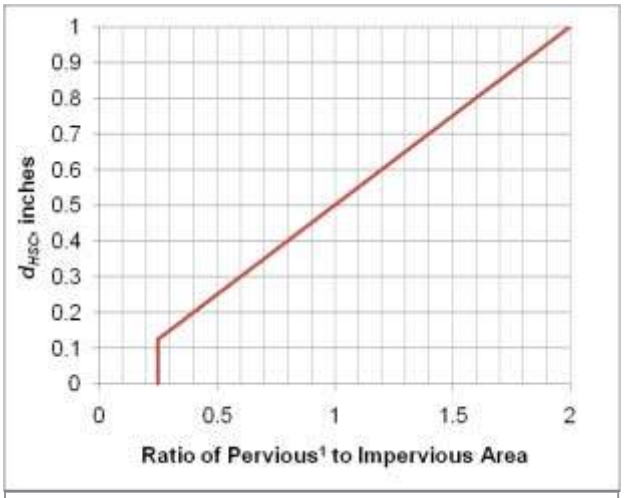
OC-Specific Design Criteria and Considerations

- ☐ Soils should be preserved from their natural condition or restored via soil amendments to meet minimum criteria described in Section .
- ☐ A minimum of 1 part pervious area capable of receiving flow should be provided for every 2 parts of impervious area disconnected.
- ☐ The pervious area receiving flow should have a slope ≤ 2 percent and path lengths of ≥ 20 feet per 1000 sf of impervious area.
- ☐ Dispersion areas should be maintained to remove trash and debris, loose vegetation, and protect any areas of bare soil from erosion.
- ☐ Velocity of dispersed flow should not be greater than 0.5 ft per second to avoid scour.

Calculating HSC Retention Volume

- The retention volume provided by downspout dispersion is a function of the ratio of impervious to pervious area and the condition of soils in the pervious area.
- Determine flow patterns in pervious area and estimate footprint of pervious area receiving dispersed flow. Calculate the ratio of pervious to impervious area.
- Check soil conditions using the soil condition design criteria below; amend if necessary.
- Look up the storm retention depth, d_{HSC} from the chart below.

- The max d_{HSC} is equal to the design storm depth for the project site.



[1] Pervious area used in calculation should only include the pervious area receiving flow, not pervious area receiving only direct rainfall or upslope pervious drainage.

Soil Condition Design Criteria

☐ Maximum slope of 2 percent

☐ Well-established lawn or landscaping

☐ Minimum soil amendments per criteria in MISC-2: Amended Soils.

Configuration for Use in a Treatment Train

- Impervious area disconnection is an HSC that may be used as the first element in any treatment train
- The use of impervious area disconnection reduces the sizing requirement for downstream LID and/or treatment control BMPs

Additional References for Design Guidance

- SMC LID Manual (pp 131) http://www.lowimpactdevelopment.org/guest75/pub/All_Projects/SoCal_LID_Manual/SoCalLID_Manual_FINAL_040910.pdf
- City of Portland Bureau of Environmental Services. 2010. How to manage stormwater – Disconnect Downspouts. http://www.portlandonline.com/bes/index.cfm?c=43081&a=177702
- Seattle Public Utility: http://www.cityofseattle.org/util/stellent/groups/public/@spu/@usm/documents/webcontent/spu01_006395.pdf
- Thurston County, Washington State (pp 10): http://www.co.thurston.wa.us/stormwater/manual/docs-faqs/DG-5-Roof-Runoff-Control_Rev11Jan24.pdf

HSC-3: Street Trees

By intercepting rainfall, trees can provide several aesthetic and stormwater benefits including peak flow control, increased infiltration and ET, and runoff temperature reduction. The volume of precipitation intercepted by the canopy reduces the treatment volume required for downstream treatment BMPs. Shading reduces the heat island effect as well as the temperature of adjacent impervious surfaces, over which stormwater flows, and thus reduces the heat transferred to downstream receiving waters. Tree roots also strengthen the soil structure and provide infiltrative pathways, simultaneously reducing erosion potential and enhancing infiltration.

Also known as:

- *Canopy interception*



Street trees
Source: Geosyntec Consultants

Feasibility Screening Considerations

- Not applicable

Opportunity Criteria

- Street trees can be incorporated in green streets designs along sidewalks, streets, parking lots, or driveways.
- Street trees can be used in combination with bioretention systems along medians or in traffic calming bays.
- There must be sufficient space available to accommodate both the tree canopy and root system.

OC-Specific Design Criteria and Considerations

☐ Mature tree canopy, height, and root system should not interfere with subsurface utilities, suspended powerlines, buildings and foundations, or other existing or planned structures. Required setbacks should be adhered to.

☐ Depending on space constarints, a 20 to 30 foot diameter canopy (at maturity) is recommended for stormwater mitigation.

☐ Native, drought-tolerant species should be selected in order to minimize irrigation requirements and improve the long-term viability of trees.

☐ Trees should not impede pedstrian or vehicle sight lines.

☐ Planting locations should receive adequate sunlight and wind protection; other environmental factors should be considered prior to planting.

☐ Frequency and degree of vegetation management and maintenance should be considered with respect to owner capabilities (e.g., staffing, funding, etc.).

☐ Soils should be preserved in their natural condition (if appropriate for planting) or restored via soil amendments to meet minimum criteria described in MISC-2: Amended Soils. If necessary, a landscape architect or plant biologist should be consulted.

☐ A street tree selection guide, such as that specific to the City of Los Angeles, may need to be consulted to select species appropriate for the site design constraints (e.g., parkway size, tree height, canopy spread, etc.)

☐ Infiltration should not cause geotechnical hazards related to adjacent structures (buildings,

roadways, sidewalks, utilities, etc.)

Calculating HSC Retention Volume

- The retention volume provided by streets trees via canopy interception is dependent on the tree species, time of the year, and maturity.
- To compute the retention depth, the expected impervious area covered by the full tree canopy after 4 years of growth must be computed (IA_{HSC}). The maximum retention depth credit for canopy interception (d_{HSC}) is 0.05 inches over the area covered by the canopy at 4 years of growth.

Configuration for Use in a Treatment Train

- As a HSC, street trees would serve as the first step in a treatment train by reducing the treatment volume and flow rate of a downstream treatment BMP.

Additional References for Design Guidance

- California Stormwater BMP Handbook.
  http://www.cabmphandbooks.com/Documents/Development/Section_3.pdf
- City of Los Angeles, Street Tree Division - Street Tree Selection Guide.
  http://bss.lacity.org/UrbanForestryDivision/StreetTreeSelectionGuide.htm
- Portland Stormwater Management Manual.
  http://www.portlandonline.com/bes/index.cfm?c=35122&a=55791
- San Diego County – Low Impact Development Fact Sheets.
  http://www.sdcounty.ca.gov/dplu/docs/LID-Appendices.pdf

Attachment D

Infiltration Report, Factor of Safety Worksheet H, & EPA Class V Injection Well Registration

Peng, Ryan

From: kerpel.judith@epa.gov
Sent: Thursday, February 2, 2023 3:22 PM
To: Peng, Ryan
Cc: kevin@patriotdevelopmentpartners.com
Subject: USEPA UIC notification regarding: CA-20230202-JK-2907: 5th at Central Industrial, Highland, CA, 92346

Follow Up Flag: Follow up
Flag Status: Flagged

Total Wells: 1
1 - Under Construction - 5D4 Stormwater Drainage - Industrial Flow - as of 02/02/2023

Thank you for submitting inventory data for the above-referenced facility with its injection ID. Here is a copy of data received. Please reply if the data was received or transcribed in error.
This notice authorizes only the planned discharge listed. Please update this registration when this well is active to receive our authorization to inject uncontaminated water only.
Any change of use or ownership of the well, or any new injection, requires notification to EPA. For more information, please see also the regulations beginning at 40 CFR 144.

Judy Kerpel
US EPA Region 9

-Facility
5th at Central Industrial
Southwest side of 5th Street and Central Avenue Highland, CA 92346

GIS: 34.107383, -117.218567
Local Identifier: APN: 1192-561-04-0-000, -05-0-000, -06-0-000, -07-0-000 UIC File ID: CA-20230202-JK-2907 Tribal Land: No
Ownership: Private - Business or other for-profits

-Contacts
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-

Geotechnical Engineering Investigation
Proposed Industrial Warehouse Development
26811 5th Street
Highland, California

Patriot Development Partners
12126 W. Sunset Boulevard
Los Angeles, California 90049-4145

Attn: Mr. Kevin Rice

Project Number 23536-22
December 29, 2022

NorCal Engineering

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NorCal Engineering

Soils and Geotechnical Consultants
10641 Humbolt Street Los Alamitos, CA 90720
(562) 799-9469 Fax (562) 799-9459

December 29, 2022 Project Number 23536-22

Patriot Development Partners
12126 W. Sunset Boulevard
Los Angeles, California 90049-4145

Attn: Kevin Rice

RE: **Geotechnical Engineering Investigation** - Proposed Industrial Warehouse Development - Located at 26811 5th Street, in the City of Highland, California

Dear Mr. Rice:

Pursuant to your request, this firm has performed a Geotechnical Engineering Investigation for the above referenced project in accordance with your approval of our proposal dated September 19, 2022. The purpose of this investigation is to evaluate the geotechnical conditions of the subject site and to provide recommendations for the construction of a proposed industrial warehouse development.

The scope of work included the following: 1) site reconnaissance; 2) subsurface geotechnical exploration and sampling; 3) laboratory testing; 4) soil infiltration testing; 5) engineering analysis of field and laboratory data; 6) preparation of a geotechnical engineering report. It is the opinion of this firm that the proposed development is feasible from a geotechnical standpoint provided that the recommendations presented in this report are followed in the design and construction of the project.

1.0 Project Description

It is proposed to construct an industrial warehouse development consisting of 54,797 square feet building on the subject site as shown on the attached Site Plan (figure 1). The proposed concrete tilt-up building will be supported by a conventional slab-on-grade foundation system with perimeter-spread footings and isolated interior footings. Other improvements will include asphalt and concrete pavement areas, hardscape and landscaping. It is assumed that the proposed grading for the development will include cut and fill procedures on the order of a few feet to achieve finished grade elevations. Final building plans shall be reviewed by this firm prior to submittal for city approval to determine the need for any additional study and revised recommendations pertinent to the proposed development, if necessary.

2.0 Site Description

The subject property is located within the 26000 block and south side of 5th Street, in the City of Highland. The generally rectangular shaped parcel is elongated in an east to west direction with topography of the relatively level site descending gradually from north to south on the order of a few feet. The northwest corner of the site is currently occupied by a single-story wood framed residence. The east end of the lot was found to be overlain with base material and is currently being utilized as a storage yard, the remaining portion of the site is currently vacant and contains some light, natural vegetation.

3.0 Site Exploration

The investigation consisted of the placement of ten (10) subsurface exploratory trenches by use of backhoe and hand operated equipment to depths of approximately 5 and 18 feet below current ground elevations. The trenches were placed at accessible locations throughout the property. The explorations were visually classified and logged by a field engineer with locations of the subsurface explorations shown on the attached plan.

The exploratory trenches revealed the existing earth materials to consist of fill and natural soil. Detailed descriptions of the subsurface conditions are listed on the boring logs in Appendix A. It should be noted that the transition from one soil type to another as shown on the trench logs is approximate and may in fact be a gradual transition. The soils encountered are described as follows:

Fill: A fill soil classifying as a brown, fine to medium grained, silty SAND with occasional gravel to a slightly silty, fine to coarse grained SAND with gravel and occasional small cobble was encountered across the site to depths ranging from 1 to 2 feet below ground surface. These soils were noted to loose and dry. Minor amounts of rootlets, asphalt and concrete debris were encountered across the site.

Natural: A natural undisturbed soil classifying as a brown fine to medium grained silty SAND to a light brown slightly silty, fine to coarse grained SAND with gravel and occasional cobble was encountered beneath the upper fill soils. The native soils as encountered were observed to be medium dense and dry to damp.

The overall engineering characteristics of the earth material were relatively uniform with each excavation. Groundwater was not encountered to the depth of our trenches and minor caving occurred in the deeper cohesionless soils. Historic high groundwater in the vicinity has been recorded greater than 65 feet below grade at a nearby well located approximately 0.6 miles to the west of the subject site, as given on the California Department of Water Recourses database http://www.water.ca.gov/waterdatalibrary/ (State well numbers 01S03W05N006S). Additionally, local groundwater maps (Carson & Matti 1982), record historic groundwater depths in excess of 100 feet.

4.0 Laboratory Tests

Relatively undisturbed samples of the subsurface soils were obtained to perform laboratory testing and analysis for direct shear, consolidation tests, and to determine in-place moisture/densities. These relatively undisturbed ring samples were obtained by driving a thin-walled steel sampler lined with one-inch-long brass rings with an inside diameter of 2.42 inches into the undisturbed soils. Bulk bag samples were obtained in the upper soils for expansion index tests and maximum density tests. All test results are included in Appendix B, unless otherwise noted.

4.1 **Field Moisture Content** (ASTM: D 2216) and the dry density of the ring samples were determined in the laboratory. This data is listed on the logs of explorations.

4.2 **Maximum Density tests** (ASTM: D 1557) were performed on typical samples of the upper soils. Results of these tests are shown on Table I.

4.3 **Expansion Index tests** (ASTM: D 4829) were performed on remolded samples of the upper soils to determine expansive characteristics. Results of these tests are provided on Table II.

4.4 **Corrosion tests** consisting of sulfate, pH, resistivity and chloride analysis to determine potential corrosive effects of soils on concrete and underground utilities. Test results are provided on Table III.

4.5 **R-Value test** per California Test Method 301 was performed on a representative sample, which may be anticipated to be near subgrade to determine pavement design. Results are provided within the pavement design section of the report.

4.6 **Direct Shear tests** (ASTM: D 3080) were performed on undisturbed and/or remolded samples of the subsurface soils. The test is performed under saturated conditions at loads of 1,000 lbs./sq.ft., 2,000 lbs./sq.ft., and 3,000 lbs./sq.ft. with results shown on Plate A to B.

4.7 **Consolidation tests** (ASTM: D 2435) were performed on undisturbed samples to determine the differential and total settlement which may be anticipated based upon the proposed loads. Water was added to the samples at a surcharge of one KSF and the settlement curves are plotted on Plates C to D.

5.0 Seismicity Evaluation

The proposed development lies outside of any Alquist Priolo Special Studies Zone and the potential for damage due to direct fault rupture is considered unlikely. The San Andreas Fault (San Bernardino Segment) is located approximately 6 kilometers from the site and is capable of producing a Magnitude 7.4 earthquake. Ground shaking originating from earthquakes along other active faults in the region is expected to induce lower horizontal accelerations due to smaller anticipated earthquakes and/or greater distances to other faults.

The seismic design acceleration parameters are provided below and are based on the 2019 California Building Code (CBC) for the referenced project. The data was obtained from the American Society of Civil Engineers (ASCE) website, https://asce7hazardtool.online/ and is attached in Appendix C.

Seismic Design Acceleration Parameters

Latitude	34.107
Longitude	-117.219
Site Class	D
Risk Category	II
Mapped Spectral Response Acceleration	S_S = 2.339 S_1 = 0.865
Adjusted Maximum Acceleration	S_{MS} = 2.339
Design Spectral Response Acceleration Parameters	S_{DS} = 1.56
Peak Ground Acceleration	PGA_M = 1.06

Use of these values is dependent on requirements of ASCE 7-16, 11-4.8, Exception 2 that requires the value of the seismic response coefficient C_s be determined by Equation 12.8.2 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either 12.8-3 for $T_L \geq T \geq 1.5T_s$ or Equation 12.8-4 for $T > T_L$. Computations and verification of these conditions is referred to the structural engineer.

6.0 Liquefaction Evaluation

The site is expected to experience ground shaking and earthquake activity that is typical of the Southern California area. It is during severe shaking that loose, granular soils below the groundwater table can liquefy. Based on review of the *County of San Bernardino County Land Use Plan – General Plan – Geologic Hazard Overlays (2009)*, the site lies *outside* a zone of "Suspected Liquefaction Susceptibility". A copy of the County of San Bernardino County Land Use Plan – General Plan – Geologic Hazard Overlays (2009) is attached in Appendix C. Additionally, based on review of local groundwater maps, the depth of groundwater is in excess of 100 feet (Carson & Matti 1982). Thus, the design of the proposed construction in conformance with the latest Building Code provisions for earthquake design is expected to provide mitigation of ground shaking hazards that are typical to Southern California.

7.0 Infiltration Characteristics

Infiltration tests within the site were performed to provide preliminary infiltration rates for the purpose of planning and design of an on-site water disposal system. The infiltration tests consisted of the double ring infiltration test per ASTM Method D 3385 with test results given in Appendix D. Based upon the results of our testing, the soils encountered in the planned on-site drainage disposal system area exhibit the following infiltration rates.

Boring/Test No.	Depth	Soil Classification	Field Infiltration Rate
T-1/TH-1	10'	Slightly Silty SAND	88.2 in/hr
T-2/TH-2	10'	Slightly Silty SAND	39.3 in/hr

Based on the results of our field testing, the subsurface soils encountered in the proposed on-site drainage disposal system shall utilize the design infiltration rates based on the safety factor required by the county standard. All systems must meet the latest city and/or county specifications and the California Regional Water Quality Control Board (CRWQCB) requirements.

Foundations shall be setback a minimum distance of 10 feet from the drainage disposal system and the bottom of footing shall be a minimum of 10 feet from the expected zone of saturation. The boundary of the zone of saturation may be assumed to project downward from the top of the permeable portion of the disposal system at an inclination of 1 to 1 or flatter, as determined by the geotechnical engineer.

8.0 Conclusions and Recommendations

Based upon our evaluations, the proposed development is acceptable from a geotechnical engineering standpoint. By following the recommendations and guidelines set forth in our report, the structures will be safe from excessive settlements under the anticipated design loadings and conditions. The proposed development shall meet all requirements of the City Building Ordinance and will not impose any adverse effect on existing adjacent structures.

The following recommendations are based upon soil conditions encountered in our field investigation; these near-surface soil conditions could vary across the site. Variations in the soil conditions may not become evident until the commencement of grading operations for the proposed development and revised recommendations from the soils engineer may be necessary based upon the conditions encountered.

It is recommended that site inspections be performed by a representative of this firm during all grading and construction of the development to verify the findings and recommendations documented in this report. Any unusual conditions which may be encountered in the course of the project development may require the need for additional study and revised recommendations.

8.1 Site Grading Recommendations

Any vegetation and/or demolition debris shall be removed and hauled from proposed grading areas prior to the start of grading operations. Existing vegetation shall not be mixed or disced into the soils. Any removed soils may be reutilized as compacted fill once any deleterious material or oversized materials (in excess of eight inches) is removed. Grading operations shall be performed in accordance with the attached *Specifications for Placement of Compacted Fill*.

8.1.1 Removal and Recompaction Recommendations

All disturbed soils and/or fill (about 1 to 2 feet below ground surface) shall be removed to competent native material, the exposed surface scarified to a depth of 12 inches, brought to within 2% of optimum moisture content and compacted to a minimum of 90% of the laboratory standard (ASTM: D-1557) prior to placement of any additional compacted fill soils, foundations, slabs-on-grade and pavement. The upper 12 inches of soils beneath building pad and concrete paving shall be compacted to a minimum of 95% of the laboratory standard. Grading shall extend a minimum of five horizontal feet outside the edges of foundations or equidistant to the depth of fill placed, whichever is greater.

The site is underlain by alluvium generally composed of gravels, cobbles and boulders in a silty sand matrix. Oversized materials are anticipated to be encountered during grading operations. The proposed building pad shall be graded with cobbles up to 6-inch minus blended uniformly with soils in the upper one foot beneath pad grade and within planned utility/foundation areas. Rock size up to 12 inches blended uniformly with soils shall be placed below two feet of more below grade. All fill will be required to be placed in suitable lifts, moisture conditioned and compacted to a minimum of 90% of the laboratory standard.

It is possible that isolated areas of undiscovered fill not described in this report are present on site; if found, these areas should be treated as discussed earlier. A diligent search shall also be conducted during grading operations in an effort to uncover any underground structures, irrigation or utility lines. If encountered, these structures and lines shall be either removed or properly abandoned prior to the proposed construction.

Any imported fill material should be preferably soil similar to the upper soils encountered at the subject site. All soils shall be approved by this firm prior to importing at the site and will be subjected to additional laboratory testing to assure concurrence with the recommendations stated in this report.

If placement of slabs-on-grade and pavement is not completed immediately upon completion of grading operations, additional testing and grading of the areas may be necessary prior to continuation of construction operations. Likewise, if adverse weather conditions occur which may damage the subgrade soils, additional assessment by the soils engineer as to the suitability of the supporting soils may be needed.

Care should be taken to provide or maintain adequate lateral support for all adjacent improvements and structures at all times during the grading operations and construction phase. Adequate drainage away from the structures, pavement and slopes should be provided at all times.

8.1.2 **Fill Blanket Recommendations**

Due to the potential for differential settlement of foundations placed on compacted fill and native materials, it is recommended that all foundations including floor slab areas be underlain by a uniform compacted fill blanket at least two feet in thickness. This fill blanket shall extend a minimum of five horizontal feet outside the edges of foundations or equidistant to the depth of fill placed, whichever is greater.

8.2 **Shrinkage and Subsidence**

The site is underlain by alluvium generally composed of gravels, cobbles and boulders blended with a sand matrix. It is our experience that a loss of volume from oversize rock will be anticipated. Results of our in-place density tests reveal that the soil shrinkage of the matrix will be on the order of 5 to 10% due to excavation and recompaction, based upon the assumption that the fill is compacted to 92% of the maximum dry density per ASTM standards. Subsidence should be 0.2 feet due to earthwork operations.

The volume change does not include any allowance for vegetation or organic stripping, removal of subsurface improvements, or topographic approximations. Although these values are only approximate, they represent our best estimate of lost yardage, which will likely occur during grading. If more accurate shrinkage and subsidence factors are needed, it is recommended that field testing the actual equipment and grading techniques should be conducted.

8.3 **Temporary Excavations**

Temporary *unsurcharged* excavations in the existing site materials may be made at vertical inclinations up to 4 feet in height unless cohesionless soils are encountered. In areas where soils with little or no binder are encountered, where adverse geological conditions are exposed, or where excavations are adjacent to existing structures, shoring or flatter excavations may be required. The temporary cut slope gradients given above do not preclude local raveling and sloughing.

All excavations shall be made in accordance with the requirements of the soils engineer, CAL-OSHA and other public agencies having jurisdiction. Care should be taken to provide or maintain adequate lateral support for all adjacent improvements and structures at all times during the grading operations and construction phase.

8.4 Foundation Design

All foundations may be designed utilizing the following allowable bearing capacities for an embedded depth of 18 inches into approved engineered fill with the corresponding widths:

Allowable Bearing Capacity (psf)		
Width (feet)	Continuous Foundation	Isolated Foundation
1.5	2000	2500
2.0	2075	2575
4.0	2375	2875
6.0	2500	3000

The bearing value may be increased by 500 psf for each additional foot of depth in excess of the 18-inch minimum depth, up to a maximum of 4,000 psf. A one-third increase may be used when considering short-term loading and seismic forces.

Any foundations located along property line may utilize an allowable bearing capacity of 1,500 psf and embedded into competent native soils. A modulus of subgrade reaction (k) of 200 pci may be used for design of slabs placed on engineered fill soils supporting sustained concentrated loads. A representative of this firm shall inspect all foundation excavations prior to pouring concrete.

8.5 Settlement Analysis

Resultant pressure curves for the consolidation tests are shown on Plates B to C. Computations utilizing these curves and the recommended allowable soil bearing capacities reveal that the foundations will experience settlements on the order of ¾ inch and differential settlements of less than ¼ inch.

8.6 **Lateral Resistance**

The following values may be utilized in resisting lateral loads imposed on the structure. Requirements of the California Building Code should be adhered to when the coefficient of friction and passive pressures are combined.

Coefficient of Friction - 0.40

Equivalent Passive Fluid Pressure = 250 lbs./cu.ft.

Maximum Passive Pressure = 2,500 lbs./cu.ft.

The passive pressure recommendations are valid only for approved compacted fill soils or competent native materials.

8.7 **Retaining Wall Design Parameters**

Active earth pressures against retaining walls will be equal to the pressures developed by the following fluid densities. These values are for **granular backfill material** placed behind the walls at various ground slopes above the walls.

Surface Slope of Retained Materials (Horizontal to Vertical	Equivalent Fluid Density (lb./cu.ft.)
Level	30
5 to 1	35
4 to 1	38
3 to 1	40
2 to 1	45

Any applicable short-term construction surcharges and seismic forces should be added to the above lateral pressure values. An equivalent fluid pressure of 45 pcf may be utilized for the restrained wall condition with a level grade behind the wall.

The seismic-induced lateral soil pressure for walls greater than 6 feet may be computed using a triangular pressure distribution with the maximum value at the top of the wall. The maximum lateral pressure of (20 pcf) H where H is the height of the retained soils above the wall footing should be used in final design of retaining walls. Sliding resistance values and passive fluid pressure values may be increased by 1/3 during short-term wind and seismic loading conditions.

All walls shall be waterproofed as needed and protected from hydrostatic pressure by a reliable permanent subdrain system. The granular backfill to be utilized immediately adjacent to retaining walls shall consist of an approved select granular soil with a sand equivalency greater than 30. This backfill zone of free draining material shall consist of a wedge beginning a minimum of one horizontal foot from the base of the wall extending upward at an inclination of no less than ¾ to 1 (horizontal to vertical).

8.8 **Slab Design**

All concrete slabs shall be a minimum of six inches in thickness in the proposed warehouse areas and four inches in office and hardscape and placed on approved subgrade soils compacted to a minimum of 95% of the laboratory standard in the upper 12 inches. Additional reinforcement requirements and an increase in thickness of the slabs-on-grade may be necessary based upon soils expansion potential and proposed loading conditions in the structures and should be evaluated further by the project engineers and/or architect.

A vapor retarder (10-mil minimum thickness) should be utilized in areas which would be sensitive to the infiltration of moisture. This retarder shall meet requirements of ASTM E 96, *Water Vapor Transmission of Materials* and ASTM E 1745, *Standard Specification for Water Vapor Retarders used in Contact with Soil or Granular Fill Under Concrete Slabs.* The vapor retarder shall be installed in accordance with procedures stated in ASTM E 1643, *Standard practice for Installation of Water Vapor Retarders used in Contact with Earth or Granular Fill Under Concrete Slabs.*

The moisture retarder may be placed directly upon compacted subgrade soils conditioned to near optimum moisture levels, although one to two inches of sand beneath the membrane is desirable. The subgrade upon which the retarder is placed shall be smooth and free of rocks, gravel or other protrusions which may damage the retarder. Use of sand above the retarder is under the purview of the structural engineer; if sand is used over the retarder, it should be placed in a dry condition.

8.9 **Pavement Section Design**

The table below provides a preliminary pavement design based upon an R-Value of 80 for the subgrade soils for the proposed pavement areas. Final pavement design may need to be based on R-Value testing of the subgrade soils near the conclusion of site grading to assure that these soils are consistent with those assumed in this preliminary design. *The recommendations are based upon estimated traffic loads. Client should submit any other anticipated traffic loadings to the geotechnical engineer, if necessary, so that pavement sections may be reviewed to determine adequacy to support the proposed loadings.*

Type of Traffic	Traffic Index	Asphalt (in.)	Base Material (in.)
Automobile Parking Stalls	4.0	3.0	3.0
Light Vehicle Circulation Areas	5.5	3.5	5.0
Heavy Truck Access Areas	7.0	4.0	8.0

Any concrete slab-on-grade in pavement areas shall be a *minimum* of six inches in thickness and may be placed on approved subgrade soils.

All pavement areas shall have positive drainage toward an approved outlet from the site. Drain lines behind curbs and/or adjacent to landscape areas should be considered by client and the appropriate design engineers to prevent water from infiltrating beneath pavement. If such infiltration occurs, damage to pavement, curbs and flow lines, especially on sites with expansive soils, may occur during the life of the project.

Any approved base material shall consist of a Class II aggregate or equivalent and should be compacted to a minimum of 95% relative compaction. All pavement materials shall conform to the requirements set forth by the City of Fontana. The base material; and asphaltic concrete should be tested prior to delivery to the site and during placement to determine conformance with the project specifications. A pavement engineer shall designate the specific asphalt mix design to meet the required project specifications.

8.10 **Utility Trench and Excavation Backfill**

Trenches from installation of utility lines and other excavations may be backfilled with on-site soils or approved imported soils compacted to a minimum of 90% relative compaction. All utility lines shall be properly bedded with clean sand having a sand equivalency rating of 30 or more. This bedding material shall be thoroughly water jetted around the pipe structure prior to placement of compacted backfill soils.

8.11 **Corrosion Design Criteria**

Representative samples of the surficial soils, typical of the subgrade soils expected to be encountered within foundation excavations and underground utilities were tested for corrosion potential. The minimum resistivity value obtained for the samples tested is representative of an environment that may be severely corrosive to metals. The soil pH value was considered mildly alkaline and may not have a significant effect on soil corrosivity. Consideration should be given to corrosion protection systems for buried metal such as protective coatings, wrappings or the use of PVC where permitted by local building codes.

According to Table 4.3.1 of ACI 318 Building Code and Commentary, these contents revealed negligible sulfate concentrations. Therefore, a Type II cement according to latest CBC specifications may be utilized for building foundations at this time. It is recommended that additional sulfate tests be performed at the completion of site grading to assure that the as graded conditions are consistent with the recommendations stated in this design. Corrosion test results may be found on the attached Table IV.

8.12 **Expansive Soil**

On-site soils are very low in expansion potential (EI 0-20). When soils have an expansion index (EI) of 20 or more, special attention should be given to the project design and maintenance. The attached *Expansive Soil Guidelines* should be reviewed by the engineers, architects, owner, maintenance personnel and other interested parties and considered during the design of the project and future property maintenance. Expansion test results may be found on the attached Table II.

9.0 Closure

The recommendations and conclusions contained in this report are based upon the soil conditions uncovered in our test excavations. No warranty of the soil condition between our excavations is implied. NorCal Engineering should be notified for possible further recommendations if unexpected to unfavorable conditions are encountered during construction phase. It is the responsibility of the owner to ensure that all information within this report is submitted to the Architect and appropriate Engineers for the project.

A preconstruction conference should be held between the developer, general contractor, grading contractor, city inspector, architect, and soil engineer to clarify any questions relating to the grading operations and subsequent construction. Our representative should be present during the grading operations and construction phase to certify that such recommendations are complied within the field.

This geotechnical investigation has been conducted in a manner consistent with the level of care and skill exercised by members of our profession currently practicing under similar conditions in the Southern California area. No other warranty, expressed or implied is made.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING

Keith D. Tucker
Project Engineer
R.G.E. 841

REGISTERED PROFESSIONAL ENGINEER
KEITH D. TUCKER
No. 841
Exp. 12/31/2024
GEOTECHNICAL
STATE OF CALIFORNIA

Mike Barone
Project Manager

SPECIFICATIONS FOR PLACEMENT OF COMPACTED FILL

Excavation

Any existing low-density soils and/or saturated soils shall be removed to competent natural soil under the inspection of the Geotechnical Engineering Firm. After the exposed surface has been cleansed of debris and/or vegetation, it shall be scarified until it is uniform in consistency, brought to the proper moisture content and compacted to a minimum of 90% relative compaction (in accordance with ASTM: D 1557).

In any area where a transition between fill and native soil or between bedrock and soil are encountered, additional excavation beneath foundations and slabs will be necessary in order to provide uniform support and avoid differential settlement of the structure.

Material for Fill

The on-site soils or approved import soils may be utilized for the compacted fill provided they are free of any deleterious materials and shall not contain any rocks, brick, asphaltic concrete, concrete or other hard materials greater than eight inches in maximum dimensions. Any import soil must be approved by the Geotechnical Engineering firm a minimum of 72 hours prior to importation of site.

Placement of Compacted Fill Soils

The approved fill soils shall be placed in layers not excess of six inches in thickness. Each lift shall be uniform in thickness and thoroughly blended. The fill soils shall be brought to within 2% of the optimum moisture content, unless otherwise specified by the Soils Engineering firm. Each lift shall be compacted to a minimum of 90% relative compaction (in accordance with ASTM: D 1557) and approved prior to the placement of the next layer of soil. Compaction tests shall be obtained at the discretion of the Geotechnical Engineering firm but to a minimum of one test for every 500 cubic yards placed and/or for every 2 feet of compacted fill placed.

The minimum relative compaction shall be obtained in accordance with accepted methods in the construction industry. The final grade of the structural areas shall be in a dense and smooth condition prior to placement of slabs-on-grade or pavement areas. No fill soils shall be placed, spread or compacted during unfavorable weather conditions. When the grading is interrupted by heavy rains, compaction operations shall not be resumed until approved by the Geotechnical Engineering firm.

Grading Observations

The controlling governmental agencies should be notified prior to commencement of any grading operations. This firm recommends that the grading operations be conducted under the observation of a Soils Engineering firm as deemed necessary. A 24-hour notice must be provided to this firm prior to the time of our initial inspection.

Observation shall include the clearing and grubbing operations to assure that all unsuitable materials have been properly removed; approve the exposed subgrade in areas to receive fill and in areas where excavation has resulted in the desired finished grade and designate areas of overexcavation; and perform field compaction tests to determine relative compaction achieved during fill placement. In addition, all foundation excavations shall be observed by the Soils Engineering firm to confirm that appropriate bearing materials are present at the design grades and recommend any modifications to construct footings.

EXPANSIVE SOIL GUIDELINES

The following expansive soil guidelines are provided for your project. The intent of these guidelines is to inform you, the client, of the importance of proper design and maintenance of projects supported on expansive soils. ***You, as the owner or other interested party, should be warned that you have a duty to provide the information contained in the soil report including these guidelines to your design engineers, architects, landscapers and other design parties in order to enable them to provide a design that takes into consideration expansive soils.***

In addition, you should provide the soil report with these guidelines to any property manager, lessee, property purchaser or other interested party that will have or assume the responsibility of maintaining the development in the future.

Expansive soils are fine-grained silts and clays which are subject to swelling and contracting. The amount of this swelling and contracting is subject to the amount of fine-grained clay materials present in the soils and the amount of moisture either introduced or extracted from the soils. Expansive soils are divided into five categories ranging from "very low" to "very high". Expansion indices are assigned to each classification and are included in the laboratory testing section of this report. *If the expansion index of the soils on your site, as stated in this report, is 21 or higher, you have expansive soils.* The classifications of expansive soils are as follows:

Classification of Expansive Soil*

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

*From Table 18A-I-B of California Building Code (1988)

When expansive soils are compacted during site grading operations, care is taken to place the materials at or slightly above optimum moisture levels and perform proper compaction operations. Any subsequent excessive wetting and/or drying of expansive soils will cause the soil materials to expand and/or contract. These actions are likely to cause distress of foundations, structures, slabs-on-grade, sidewalks and pavement over the life of the structure. ***It is therefore imperative that even after construction of improvements, the moisture contents are maintained at relatively constant levels, allowing neither excessive wetting or drying of soils.***

Evidence of excessive wetting of expansive soils may be seen in concrete slabs, both interior and exterior. Slabs may lift at construction joints producing a trip hazard or may crack from the pressure of soil expansion. Wet clays in foundation areas may result in lifting of the structure causing difficulty in the opening and closing of doors and windows, as well as cracking in exterior and interior wall surfaces. In extreme wetting of soils to depth, settlement of the structure may eventually result. Excessive wetting of soils in landscape areas adjacent to concrete or asphaltic pavement areas may also result in expansion of soils beneath pavement and resultant distress to the pavement surface.

Excessive drying of expansive soils is initially evidenced by cracking in the surface of the soils due to contraction. Settlement of structures and on-grade slabs may also eventually result along with problems in the operation of doors and windows.

Projects located in areas of expansive clay soils will be subject to more movement and "hairline" cracking of walls and slabs than similar projects situated on non-expansive sandy soils. There are, however, measures that developers and property owners may take to reduce the amount of movement over the life the development. The following guidelines are provided to assist you in both design and maintenance of projects on expansive soils:

- Drainage away from structures and pavement is essential to prevent excessive wetting of expansive soils. Grades should be designed to the latest building code and maintained to allow flow of irrigation and rain water to approved drainage devices or to the street. Any "ponding" of water adjacent to buildings, slabs and pavement after rains is evidence of poor drainage; the installation of drainage devices or regrading of the area may be required to assure proper drainage. Installation of rain gutters is also recommended to control the introduction of moisture next to buildings. Gutters should discharge into a drainage device or onto pavement which drains to roadways.

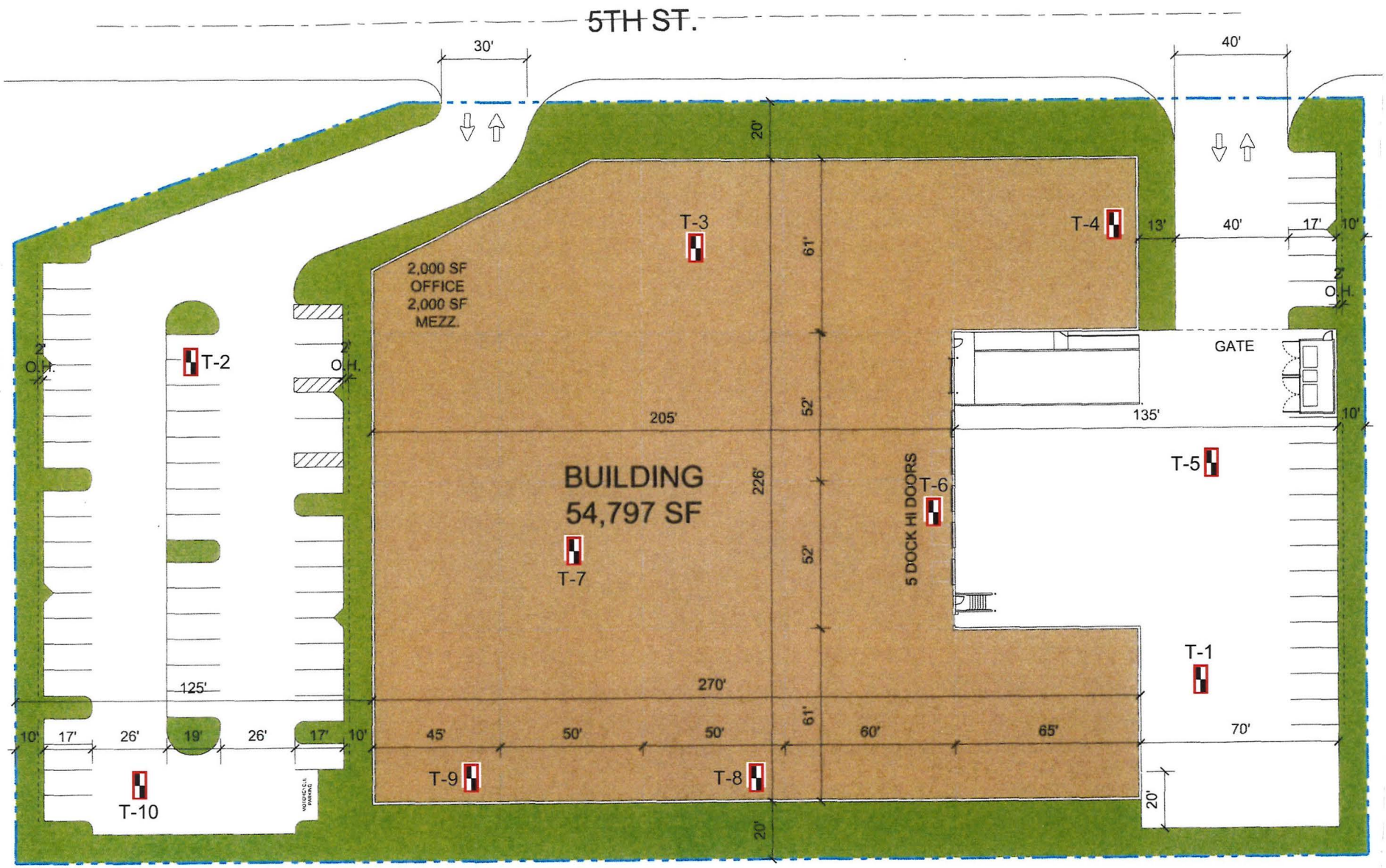
- Irrigation should be strictly controlled around building foundations, slabs and pavement and may need to be adjusted depending upon season. This control is essential to maintain a relatively uniform moisture content in the expansive soils and to prevent swelling and contracting. Over-watering adjacent to improvements may result in damage to those improvements. NorCal Engineering makes no specific recommendations regarding landscape irrigation schedules.

- Planting schemes for landscaping around structures and pavement should be analyzed carefully. Plants (including sod) requiring high amounts of water may result in excessive wetting of soils. Trees and large shrubs may actually extract moisture from the expansive soils, thus causing contraction of the fine-grained soils.

- Thickened edges on exterior slabs will assist in keeping excessive moisture from entering directly beneath the concrete. A six-inch thick or greater deepened edge on slabs may be considered. Underlying interior and exterior slabs with 6 to 12 inches or more of non-expansive soils and providing presaturation of the underlying clayey soils as recommended in the soil report will improve the overall performance of on-grade slabs.

- Increase the amount of steel reinforcing in concrete slabs, foundations and other structures to resist the forces of expansive soils. The precise amount of reinforcing should be determined by the appropriate design engineers and/or architects.

- Recommendations of the soil report should always be followed in the development of the project. Any recommendations regarding presaturation of the upper subgrade soils in slab areas should be performed in the field and verified by the Soil Engineer.



10' 0' 10' 25' 50'

SCALE: 1" = 50'

NorCal Engineering

SOILS AND GEOTECHNICAL CONSULTANTS

PATRIOT DEVELOPMENT PARTNERS

PROJECT: 23536-22 | DATE: DECEMBER 2022

SITE PLAN

(FIGURE 1)



NorCal Engineering SOILS AND GEOTECHNICAL CONSULTANTS	
PATRIOT DEVELOPMNET PARTNERS	
PROJECT: 23536-22	DATE: DECEMBER 2022

VICINITYMAP

(FIGURE 2)

List of Appendices
(in order of appearance)

Appendix A – Log of Excavations

Log of Trenches T-1 to T-10

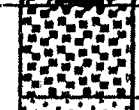
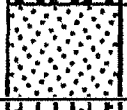
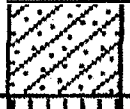
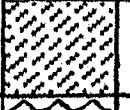
Appendix B – Laboratory Tests

Table I – Maximum Dry Density
Table II – Expansion
Table III – Corrosion
Plate A to B– Direct Shear
Plates C to D - Consolidation

Appendix C – ASCE Seismic Hazards Report

Appendix D – Soil Infiltration Data

Appendix A
Log of Excavations

MAJOR DIVISION			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL, SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINE (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

KEY:

 Indicates 2.5-inch Inside Diameter. Ring Sample.

 Indicates 2-inch OD Split Spoon Sample (SPT).

 Indicates Shelby Tube Sample.

 Indicates No Recovery.

 Indicates SPT with 140# Hammer 30 in. Drop.

 Indicates Bulk Sample.

 Indicates Small Bag Sample.

 Indicates Non-Standard

 Indicates Core Run.

COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Trace	1 - 5%
Few	5 - 10%
Little	10 - 20%
Some	20 - 35%
And	35 - 50%

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5mm) to No. 200 (0.074mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074 mm)

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
DAMP	Some perceptible moisture; below optimum
MOIST	No visible water; near optimum moisture content
WET	Visible free water, usually soil is below water table.

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N -VALUE

COHESIONLESS SOILS		COHESIVE SOILS		
Density	N (blows/ft)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	Very Soft	0 to 2	< 250
Loose	4 to 10	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	Very Stiff	15 to 30	2000 - 4000
		Hard	over 30	> 4000

Patriot Development Partners
23536-22

Log of Trench T-1

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to medium grained) SAND with gravel, occasional cobbles Brown, loose, dry					
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp					
5		Slightly Silty (fine to coarse grained) SAND with gravel, occasional small cobbles Light brown, medium dense, damp					
		Slightly Silty (fine to medium grained) SAND occasional gravel, cobble Light brown, medium dense, damp					
10					1.9		
		Trench completed at depth of 10'					
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

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23536-22

Log of Trench T-2

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to coarse grained) SAND occasional gravel, roots Brown, loose, dry					
		NATURAL Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobbles Light Brown, medium dense, damp					
5		Increase in gravel and cobble below 5'					
10		Trench completed at depth of 10'	☒		1.4		
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

NorCal Engineering

Patriot Development Partners
23536-22

Log of Trench T-3

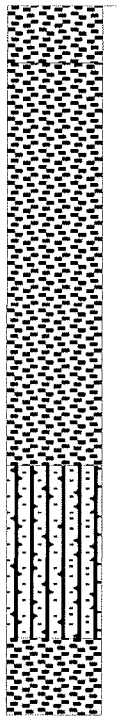
Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:



Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Slightly Silty (fine to coarse grained) SAND occasional gravel, cobble, asphaltic concrete, concrete Brown, loose, dry			1.1		
		NATURAL Slightly Silty (fine to coarse grained) SAND occasional small cobbles Light Brown, medium dense, dry to damp			0.6		
10			■		0.7	108.3	
		Slightly Silty (fine to medium grained) SAND Light brown, medium dense, moist					
15			■		9.5	100.3	
		Slightly Silty (fine to coarse grained) SAND with occasional gravel, cobble Light brown, medium dense, dry					
			■		0.7	122.3	
		Trench completed at depth of 18.5'					
20							
25							
30							
35							

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

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23536-22

Log of Trench T-4

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples		Laboratory		
			Type	Blow Counts	Moisture	Dry Density	Fines Content %
0		FILL Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble and asphaltic concrete Brown, loose, dry			0.6		
		NATURAL Slightly Silty (fine to coarse grained) SAND occasional gravel Light Brown, medium dense, dry to damp			1.5	106.0	
5		Trench completed at depth of 5.5'					
10							
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

NorCal Engineering

Patriot Development Partners
23536-22

Log of Trench T-5

Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to medium grained) SAND with gravel, occasional asphaltic concrete, concrete, roots Brown, loose, dry	■		1.7	104.0	
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp					
5		Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobbles Light brown, medium dense, damp					
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

NorCal Engineering

Patriot Development Partners
23536-22

Log of Trench T-6

Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to medium grained) SAND occasional gravel, asphaltic concrete, cobble Brown, loose, dry	■		10.5	100.6	
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp					
5		Slightly Silty (fine to medium grained) SAND Light brown, medium dense, damp	■		2.2	100.2	
		Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble Light brown, medium dense, damp	■		2.6	103.6	
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

NorCal Engineering

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23536-22

Log of Trench T-7

Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to coarse grained) SAND occasional gravel, cobble Brown, loose, dry					
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp	■		0.4	111.6	
5		Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble Light brown, medium dense, dry to damp					
		GWT not encountered					
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

NorCal Engineering

Patriot Development Partners
23536-22

Log of Trench T-8

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples Type	Samples Blow Counts	Laboratory Moisture	Laboratory Dry Density	Laboratory Fines Content %
0		FILL Silty (fine to coarse grained) SAND with gravel, roots, occasional cobble Brown, loose, dry	■		1.1	103.5	
		NATURAL Silty (fine to medium grained) SAND occasional gravel Brown, medium dense, damp					
5		Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble Light brown, medium dense, dry to damp					
		GWT not encountered					
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

NorCal Engineering

Patriot Development Partners
23536-22

Log of Trench T-9

Boring Location: 26811 5th Street, Highland	
Date of Drilling: 10/12/2022	Groundwater Depth: None Encountered
Drilling Method: Backhoe	
Hammer Weight:	Drop:
Surface Elevation:	

Depth (feet)	Lith-ology	Material Description	Samples Type	Samples Blow Counts	Laboratory Moisture	Laboratory Dry Density	Laboratory Fines Content %
0		FILL Silty (fine to medium grained) SAND with gravel, occasional cobble Brown, loose, dry					
		NATURAL Slightly Silty (fine to coarse grained) SAND with gravel Light brown, medium dense, dry	■		0.5	105.3	
5		Occasional cobble below 7'	■		1.5	108.6	
10		Trench completed at depth of 10'					
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

NorCal Engineering

Patriot Development Partners
23536-22

Log of Trench T-10

Boring Location: 26811 5th Street, Highland

Date of Drilling: 10/12/2022 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation:

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		FILL Silty (fine to medium grained) SAND with gravel, occasional roots, cobble Brown, loose, dry					
		NATURAL Slightly Silty (fine to coarse grained) SAND with gravel, occasional cobble Brown, medium dense, dry to damp					
5		Trench completed at depth of 5'					
10							
15							
20							
25							
30							
35							

GWT not encountered

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\23536-22.log Date: 12/30/2022

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Appendix B
Laboratory Tests

TABLE I
MAXIMUM DENSITY TESTS

Sample	Classification	Optimum Moisture (%)	Maximum Dry Density (lbs/cu.ft)
T-3 @ 2'	Slightly Silty SAND	7.0	128.0
T-5 @ 2'	Silty SAND	8.5	119.0

TABLE II
EXPANSION TESTS

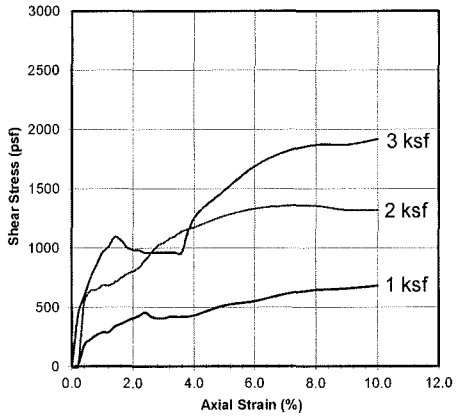
Sample	Classification	Expansion Index
T-5 @ 2'	Silty SAND	0

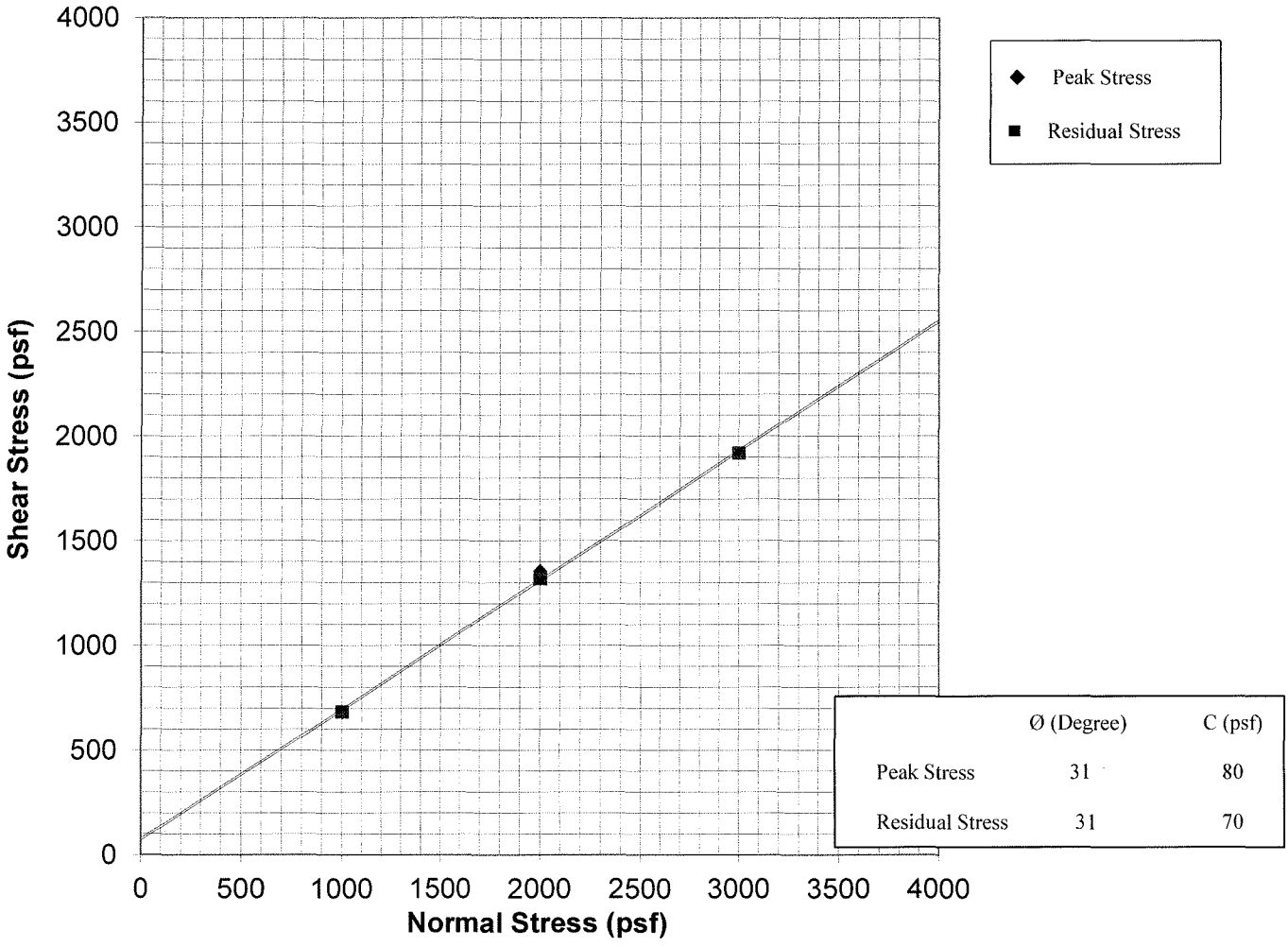
TABLE III
CORROSION TESTS

Sample	pH	Electrical Resistivity	Sulfate (%)	Chloride (ppm)
T-5 @ 2'	7.8	12,711	N.D.	102

% by weight
ppm – mg/kg
N.D. = Non-Detect

Sample No.		T6@2'		
Sample Type:		Undisturbed/Saturated		
Soil Description:		Silty Fine-Very Coarse Sand		
		1	2	3
Normal Stress	(psf)	1000	2000	3000
Peak Stress	(psf)	684	1356	1920
Displacement	(in)	0.250	0.175	0.250
Residual Stress	(psf)	684	1320	1920
Displacement	(in.)	0.250	0.250	0.250
In Situ Dry Density	(pcf)	100.6	100.6	100.6
In Situ Water Content	(%)	10.5	10.5	10.5
Saturated Water Content	(%)	24.9	24.9	24.9
Strain Rate	(in/min)	0.020	0.020	0.020





	Ø (Degree)	C (psf)
Peak Stress	31	80
Residual Stress	31	70

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PROJECT NUMBER: 23536-22 DATE: 11/11/2022

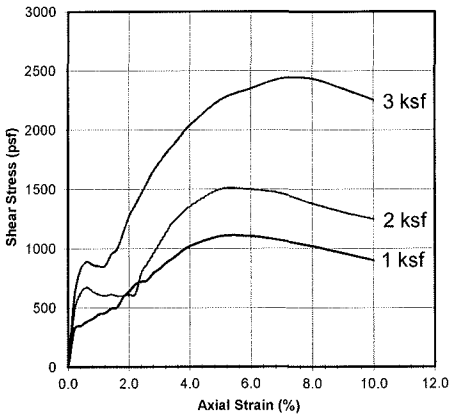
DIRECT SHEAR TEST

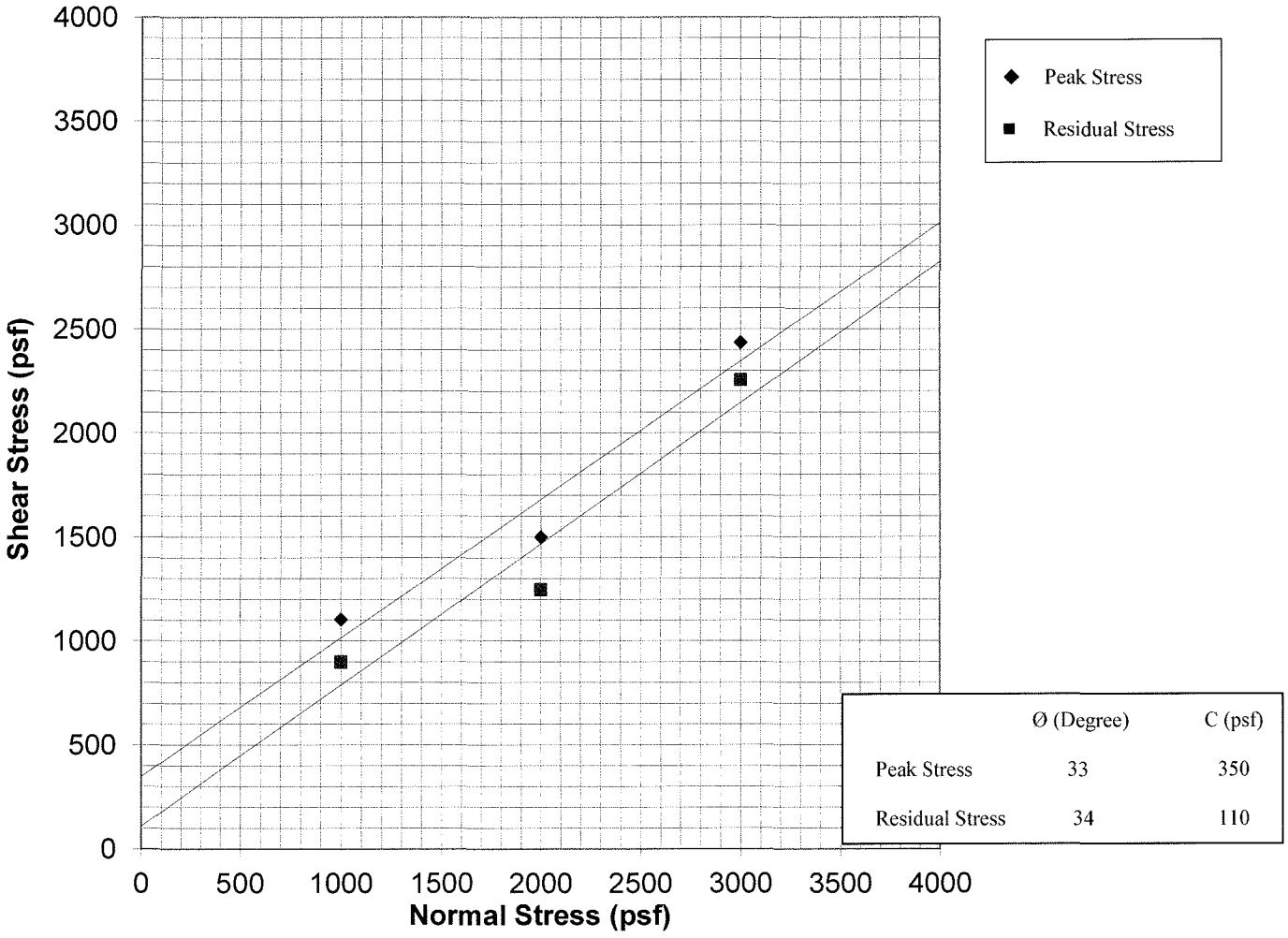
ASTM D3080

Plate A

Sample No.	T9@3'
Sample Type:	Undisturbed/Saturated
Soil Description:	Fine-Very Coarse Grained Sand w/ Trace Silt

		1	2	3
Normal Stress	(psf)	1000	2000	3000
Peak Stress	(psf)	1104	1500	2436
Displacement	(in.)	0.125	0.125	0.175
Residual Stress	(psf)	900	1248	2256
Displacement	(in.)	0.250	0.250	0.250
In Situ Dry Density	(pcf)	105.3	105.3	105.3
In Situ Water Content	(%)	0.5	0.5	0.5
Saturated Water Content	(%)	22.2	22.2	22.2
Strain Rate	(in/min)	0.020	0.020	0.020





	Ø (Degree)	C (psf)
Peak Stress	33	350
Residual Stress	34	110

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PROJECT NUMBER: 23536-22 DATE: 11/11/2022

DIRECT SHEAR TEST

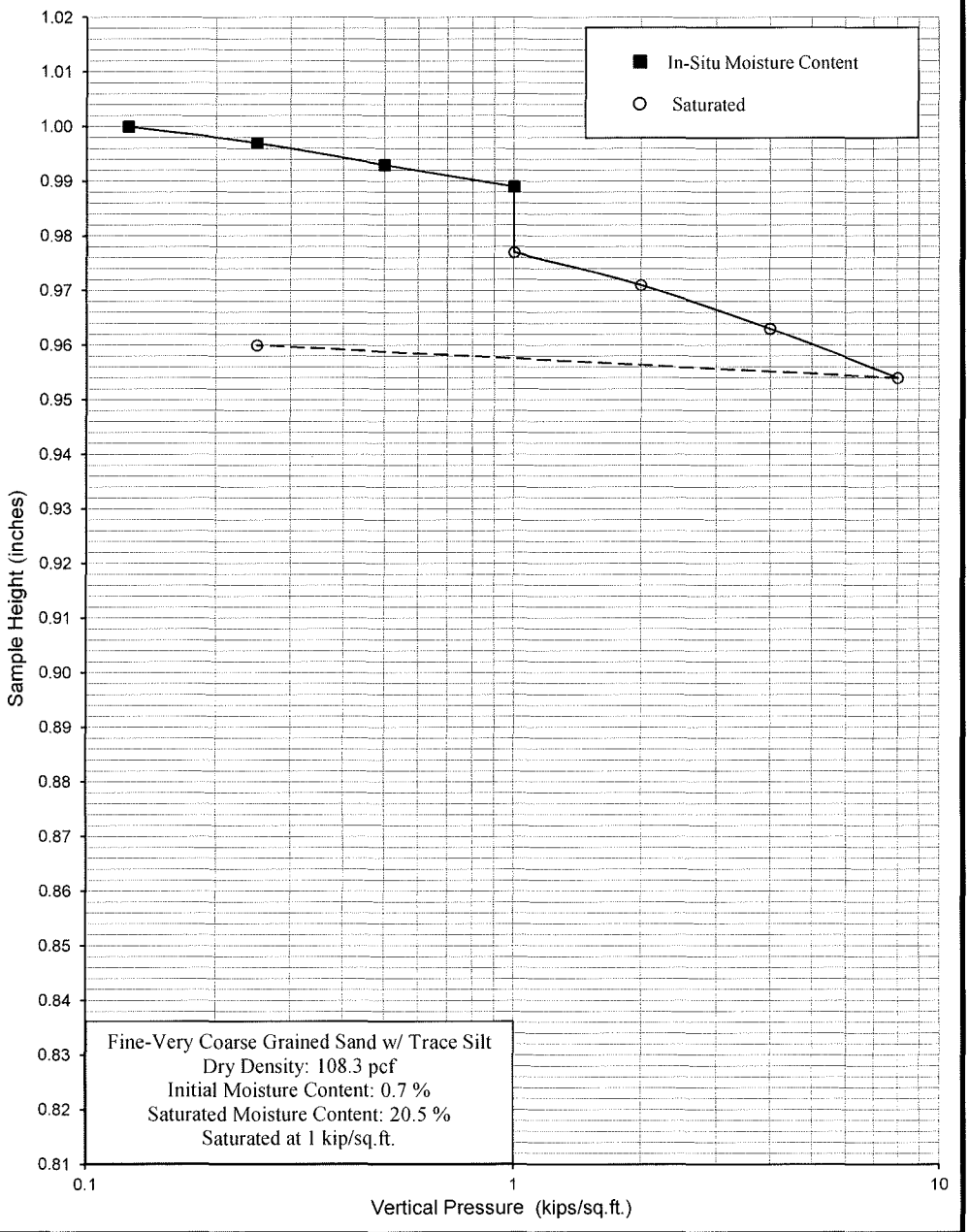
ASTM D3080

Plate B

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	
0.125	1.0000	0.0	
0.25	0.9970	0.3	
0.5	0.9930	0.7	
1	0.9890	1.1	
1	0.9770	2.3	Saturated
2	0.9710	2.9	
4	0.9630	3.7	
8	0.9540	4.6	
0.25	0.9600	4.0	

Sample No.	T3	Depth	10'	Date	11/11/2022

Date Tested: 10/31/2022
Sample: T3
Depth: 10'



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PROJECT NUMBER: 23536-22 DATE: 11/11/2022

CONSOLIDATION TEST

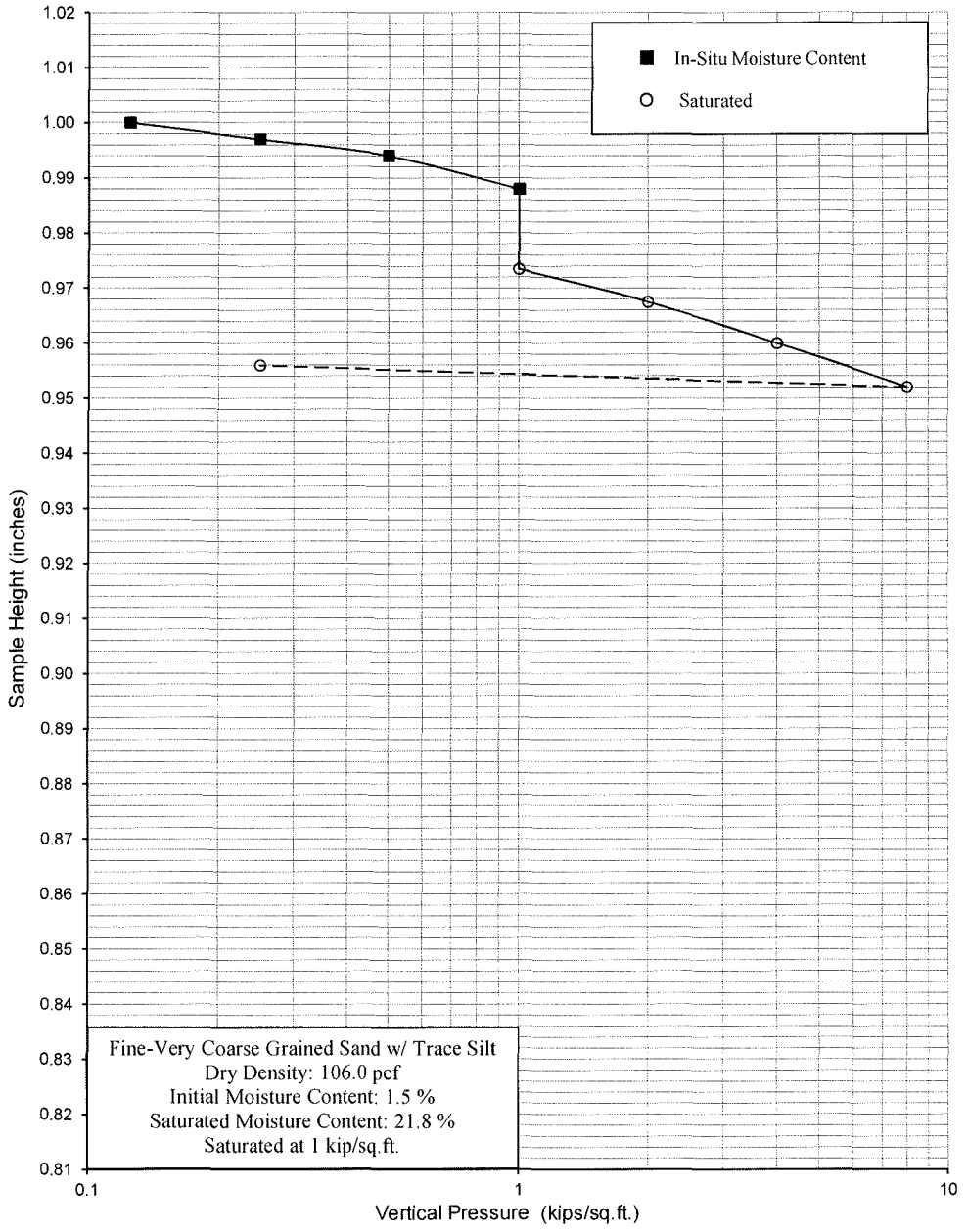
ASTM D2435

Plate C

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	
0.125	1.0000	0.0	
0.25	0.9970	0.3	
0.5	0.9940	0.6	
1	0.9880	1.2	
1	0.9735	2.7	Saturated
2	0.9675	3.3	
4	0.9600	4.0	
8	0.9520	4.8	
0.25	0.9560	4.4	

Sample No.	T4
Depth	5'
Date	11/11/2022

Date Tested: 10/31/2022
Sample: T4
Depth: 5'



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Patriot Development Partners

PROJECT NUMBER: 23536-22 DATE: 11/11/2022

CONSOLIDATION TEST

ASTM D2435

Plate D

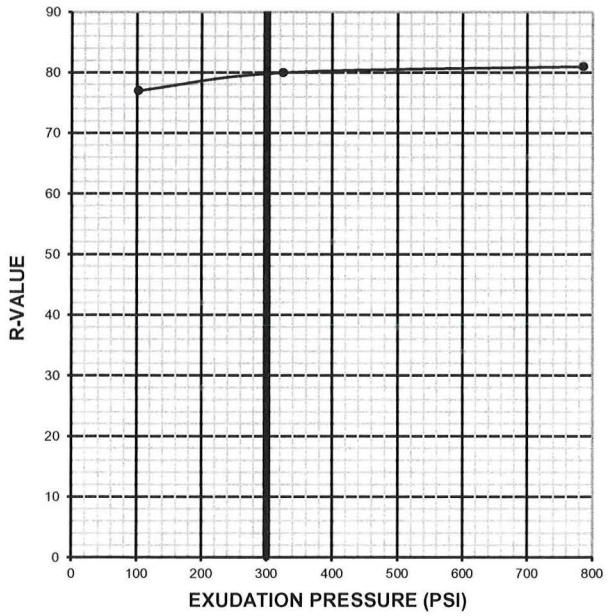
R-VALUE TEST REPORT

☑ CT-301 ☐ ASTM-D2844

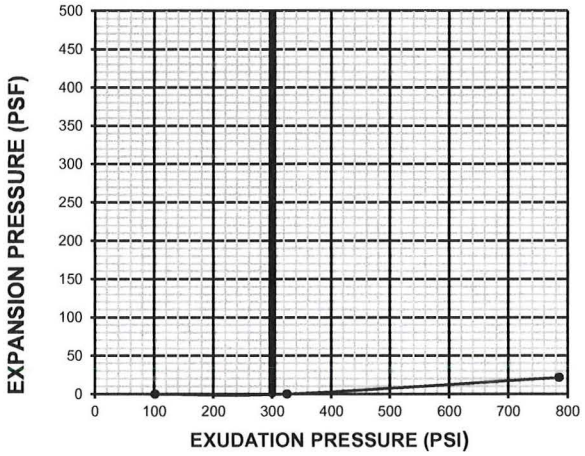
PROJECT NAME:	Norcal: Patriot Development Partners	PROJECT NUMBER:	L-221101
SAMPLE LOCATION:	26811 th Street, Highland, CA	SAMPLE NUMBER:	B1 (23536-22)
SAMPLE DESCRIPTION:	SILTY SAND (SM), brown	SAMPLE DEPTH:	1'
SAMPLED BY:	Norcal	TESTED BY:	JPG
		DATE TESTED:	11/17/2022

TEST SPECIMEN	A	B	C
MOISTURE AT COMPACTION %	9.7	8.6	7.9
WEIGHT OF SAMPLE, grams	1150	1122	1138
HEIGHT OF SAMPLE, Inches	2.60	2.57	2.62
DRY DENSITY, pcf	122.2	121.8	122.0
COMPACTOR AIR PRESSURE, psi	300	300	300
EXUDATION PRESSURE, psi	102	325	786
EXPANSION, Inches x 10exp-4	0	0	5
STABILITY Ph 2,000 lbs (160 psi)	20	16	15
TURNS DISPLACEMENT	5.45	5.68	5.74
R-VALUE UNCORRECTED	76	80	81
R-VALUE CORRECTED	77	80	81
EXPANSION PRESSURE (psf)	0.0	0.0	21.6

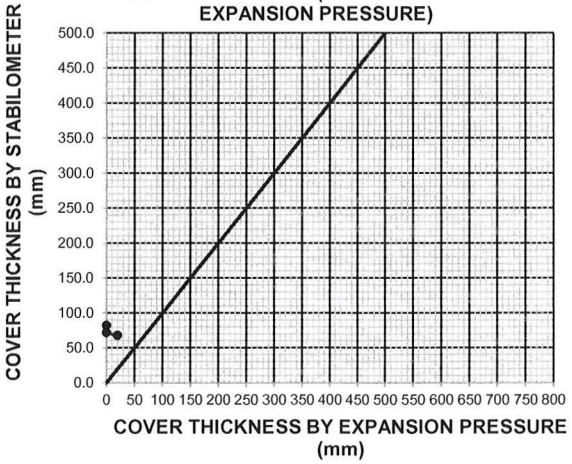
R-VALUE VS. EXUDATION PRESSURE



EXPANSION PRESSURE VS. EXUDATION PRESSURE



COVER THICKNESS (STABILOMETER BY EXPANSION PRESSURE)



R-VALUE AT EQUILIBRIUM:	80

R-VALUE BY EXUDATION PRESSURE:	80
R-VALUE BY EXPANSION PRESSURE:	N.A.
EXPANSION PRESSURE AT 300 PSI EXUDATION:	0
TRAFFIC INDEX (Assumed):	5.5
GRAVEL FACTOR (Assumed):	1.5
UNIT MASS OF COVER MATERIAL, kg/m^3 (Assumed):	2100.0

Appendix C
Seismic Design Report

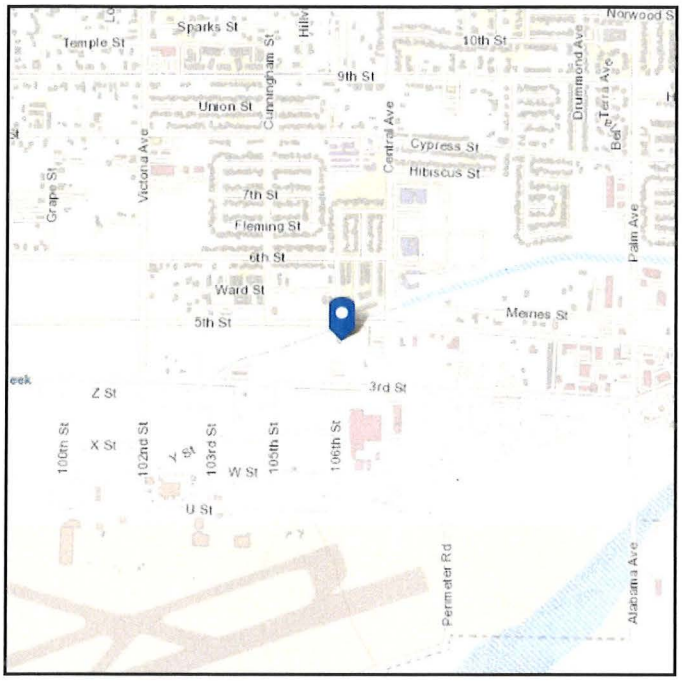
NorCal Engineering

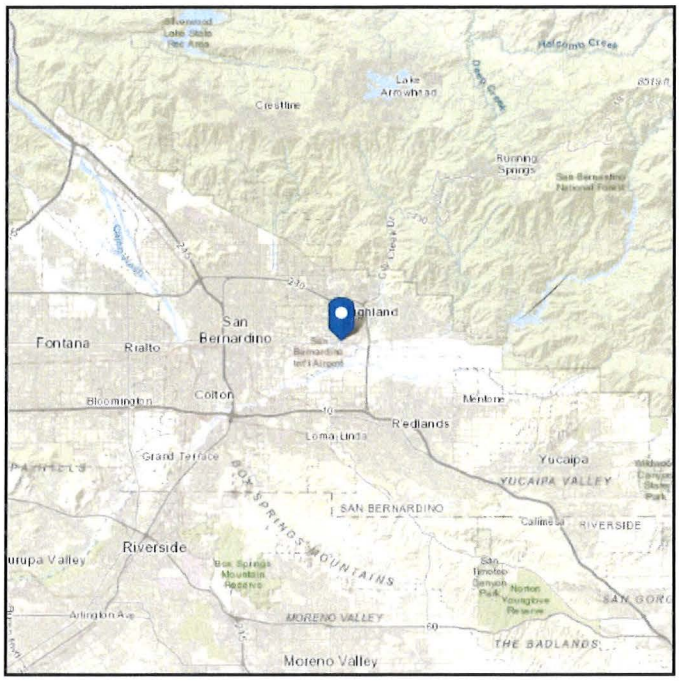
ASCE 7 Hazards Report

Address:
26811 5th St
Highland, California
92346

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Latitude: 34.107915
Longitude: -117.21915
Elevation: 1162.62 ft (NAVD 88)





ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	2.339	S_{D1} :	N/A
S_1 :	0.865	T_L :	8
F_a :	1	PGA :	0.963
F_v :	N/A	PGA_M :	1.06
S_{MS} :	2.339	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.56	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Thu Dec 29 2022

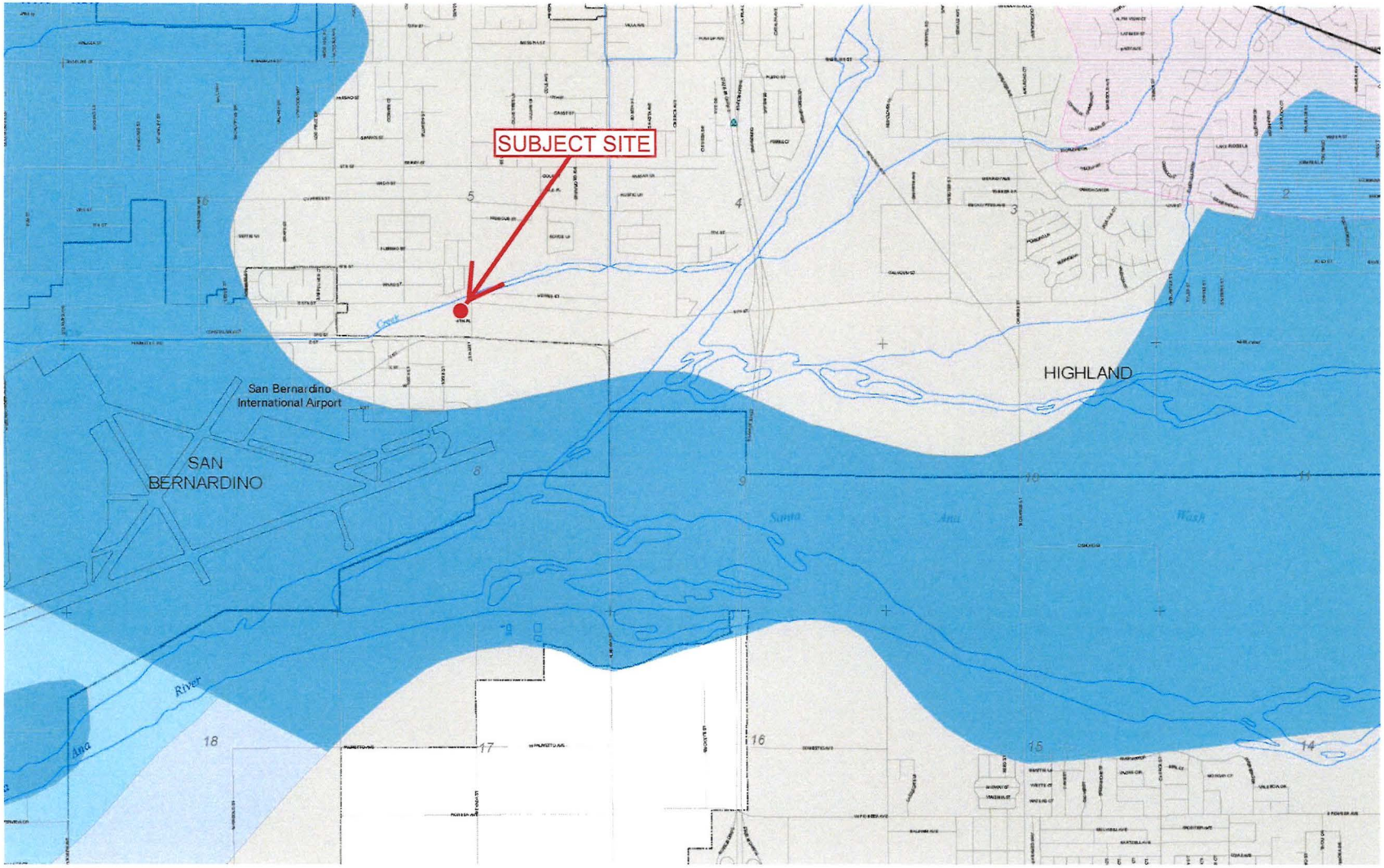
Date Source: USGS Seismic Design Maps

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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Generalized Liquefaction Susceptibility

- Low
- Medium
- High

NorCal Engineering

SOILS AND GEOTECHNICAL CONSULTANTS

PATRIOT DEVELOPMENT PARTNERS

PROJECT: 23536-22 | DATE: DECEMBER 2022

SAN BERNARDINO COUNTY LAND USE PLAN
GENERAL PLAN
GEOLOGIC HAZARD OVERLAY

FH31 C
REDLANDS

Appendix D
Soil Infiltration Data

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SOILS AND GEOTECHNICAL CONSULTANTS

Project: Patriot Development Partners
Project No.: 23536-22
Date: 10/12/2022
Test No. 1
Depth: 10'
Tested By: J.S.

TIME (hr/min)	CHANGE TIME (min)	CUMULATIVE TIME (min)	INNER RING READING (cm)	INNER RING CHANGE	INNER RING FLOW (cc)	OUTER RING READING (cm)	OUTER RING CHANGE	OUTER RING FLOW (cc)	INNER RING INF RATE (cm/hr)	OUTER RING INF RATE (cm/hr)	INNER RING INF RATE (ft/hr)
8:08			95.7			39.0					
8:10	2	2	105.3	9.6		49.0	10.0				
8:10			95.4			39.6					
8:12	2	4	104.5	9.1		48.6	9.0				
8:12			96.0			39.9					
8:14	2	6	105.0	9.0		48.9	9.0				
8:14			95.0			39.8					
8:16	2	8	103.5	8.5		47.9	8.1				
8:16			94.3			38.7					
8:18	2	10	103.1	8.8		46.7	8.0				
8:18			98.2			41.8					
8:20	2	12	105.5	7.3		49.3	7.5				
8:20			98.5			42.8					
8:22	2	14	105.8	7.3		49.9	7.1		219	213	
8:22			95.5			39.5					
8:24	2	16	103.5	8.0		47.5	8.0		240	240	
8:24			98.8			42.2					
8:26	2	18	105.7	6.9		49.6	7.4		207	222	
8:26			99.2			43.0					
8:28	2	20	106.4	7.2		50.1	7.1		216	213	
8:28			95.9			40.3					
8:30	2	22	103.4	7.5		47.5	7.2		225	216	
8:30			96.5			40.4					
8:32	2	24	103.7	7.2		47.6	7.2		216	216	

Average = 220.5/220 cm/hr

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

Project: Patriot Development Partners
Project No.: 23536-22
Date: 10/12/2022
Test No. 2
Depth: 10'
Tested By: D.R.

TIME (hr/min)	CHANGE TIME (min)	CUMULATIVE TIME (min)	INNER RING READING (cm)	INNER RING CHANGE	INNER RING FLOW (cc)	OUTER RING READING (cm)	OUTER RING CHANGE	OUTER RING FLOW (cc)	INNER RING INF RATE (cm/hr)	OUTER RING INF RATE (cm/hr)	INNER RING INF RATE (ft/hr)
11:00			99.5			35.0					
11:03	3	3	103.8	4.3		43.9	8.9				
11:03			94.9			38.6					
11:06	3	6	102.0	7.1		45.6	7.0				
11:06			96.2			39.5					
11:09	3	9	102.1	5.9		45.4	5.9				
11:09			96.5			39.7					
11:12	3	12	102.1	5.6		45.3	5.6				
11:12			96.6			40.5					
11:15	3	15	102.5	5.6		45.8	5.3				
11:15			96.2			40.2					
11:18	3	18	101.2	5.0		45.3	5.1				
11:18			95.7			39.1					
11:21	3	21	100.6	4.9		44.2	5.1		98	102	
11:21			96.5			39.2					
11:24	3	24	101.2	4.7		44.9	5.7		94	114	
11:24			96.8			40.0					
11:27	3	27	101.8	5.0		44.8	4.8		100	96	
11:27			96.0			39.4					
11:30	3	30	100.8	4.8		44.3	4.9		96	98	
11:30			94.3			38.5					
11:33	3	33	99.3	5.0		43.4	4.9		100	98	
11:33			94.3			38.3					
11:36	3	36	99.4	5.1		43.2	5.0		102	100	

Average = 98.3/101.3 cm/hr

Attachment E

Maintenance Agreement and Inspection Guidelines

SECTION TO BE PROVIDED IN FINAL WQMP

Appendix H-2
Preliminary Drainage Report

PRELIMINARY DRAINAGE REPORT

For

5th at Central Industrial

APN: 1192-561-04, -05, -06, -07

PROJECT LOCATION

Southwest of 5th Street & Central Avenue
Highland, California

PREPARED FOR

Patriot Development Partners
116 Nob Avenue
Del Mar, CA 92014
858-952-4134

PREPARED BY

Huitt-Zollars, Inc.
3990 Concours, Suite 330
Ontario, Ca 91764
Ph: (909) 941-7799
Fax: (909) 941-7789



Ryan Peng, P.E.
C77887, Exp 06/30/2023

PREPARATION DATE

03/17/2023

HZ PROJECT NUMBER

R315834.01

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Purpose	1
Existing Condition	1
Proposed Condition	1
Hydrologic Analysis	1
Discussion	1

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Appendix A — Preliminary Drainage Maps
- 100-year Storm Event – Existing Condition
- 100-year Storm Event – Proposed Condition

Appendix B — 100-year Rational Method
- Existing Condition
- Proposed Condition

Appendix C — 100-year Existing & Proposed Unit Hydrograph Infiltration/Detention System Basin Routing

Appendix D — Stormwater Facility Mapping Hydrologic Soils Type Isohyetal Maps

Appendix E — Selected References

Introduction
The project is a new development of an industrial warehouse facility located southwest of 5TH Street and Central Avenue in City of Highland, California. The site is partially a residential plot with a single-family home being the main structure on the site. The eastern 5th of the site is a paved parking lot for storage housed in metal-sided structures. The remainder of the site is mostly vacant with some landscaping and trees to the northwest of the site near the residential portion and loose grass/shrubbery for the remainder of the site

Purpose
The purpose of this preliminary report is to present the drainage concept for the project and to determine the design flow rates and estimate storm drain sizes that will be needed for the proposed development. The drainage maps (Appendix A) and calculations reflect the tributary areas and 100-year storm event runoff flows (Q100).

Existing Condition
The site slopes down by approximately 1.4% from the northeast corner to the southwest corner with about six (6) feet of fall. The runoff then drains to the westerly neighboring parcel. See Appendix A for the existing drainage map and Appendix E for existing drainage facilities.

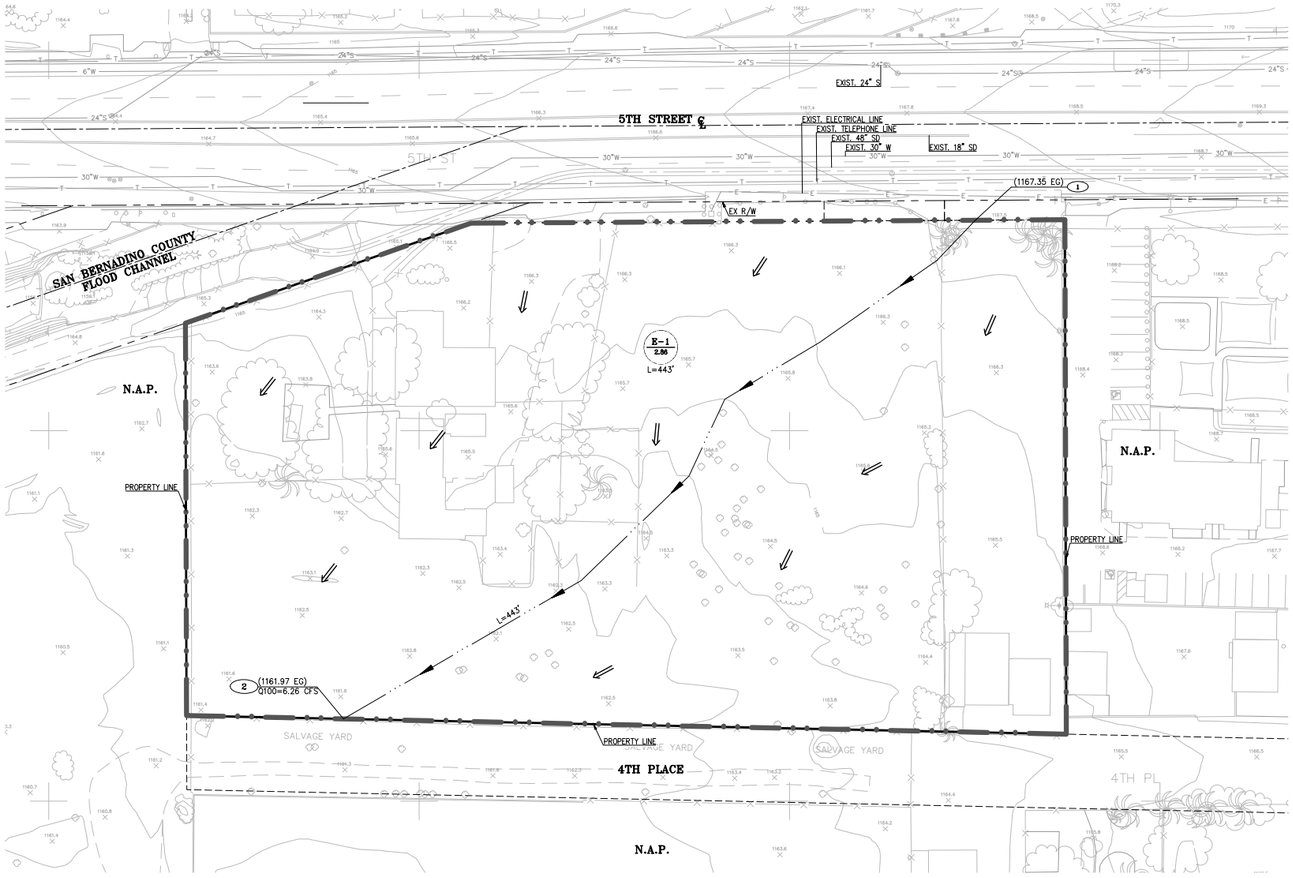
Proposed Condition
The proposed drainage pattern preserves the existing drainage pattern. See Appendix A for the proposed on-site hydrology map. For the proposed development, all onsite runoff will be directed to the onsite underground infiltration/detention system on the west side of the project site. The underground infiltration detention system is designed to mitigate peak 100-year stormwater flow resulting from the development. After the mitigation, the overflow from the infiltration system will be directed to a 4' curb opening outlet in the southwest corner of the site which outlets to the westerly parcel.

Hydrologic Analysis
A hydrologic analysis was prepared using the methodology outlined in the San Bernardino County Flood Control District (SBCFCD) Hydrology Manual. A rational method analysis was completed for existing and proposed 100-year storm event using Civild software, version 7.1. Unit Hydrograph and Basin Routing analyses were also completed using Civild software.

The 100-year 1-hour storm depth was taken from the isohyetal maps in the County of San Bernardino Hydrology Manual. The site's hydrologic soils type is "A" and was taken from San Bernardino County's Stormwater Facility Mapping Tool. For the proposed development's hydrologic analysis, a commercial land use was used with an AMC of 3. See Appendix D for hydrologic soils type and isohyetal maps.

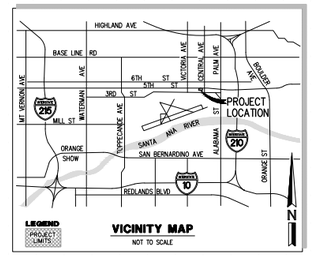
Discussion
According to the hydrologic and basin routing analysis for existing and proposed conditions, the results indicate the proposed Q100 will be mitigated and fully detained on-site in the underground system. The proposed 4' curb opening outlet will be served as an emergency outlet only if there is an overflow from the system after onsite detention. See Appendix B for hydrologic analysis and Appendix C for basin routing summary, unit hydrograph, and basin routing analyses. All proposed drainage and storm drain facilities will be sized adequately for Q100 and calculations will be provided in the final drainage report.

Appendix A
Preliminary Drainage Maps
100 Year Storm Event – Existing Condition
100 Year Storm Event – Proposed Condition



LEGEND

- NO. — HYDROLOGY MODEL NODE NUMBER
- E-1 / 7.40 Ac — TRIBUTARY AREA IN ACRES
- 673' — LENGTH OF FLOW
- DRAINAGE BOUNDARY
- FLOW DIRECTION



N

SCALE 1" = 30'

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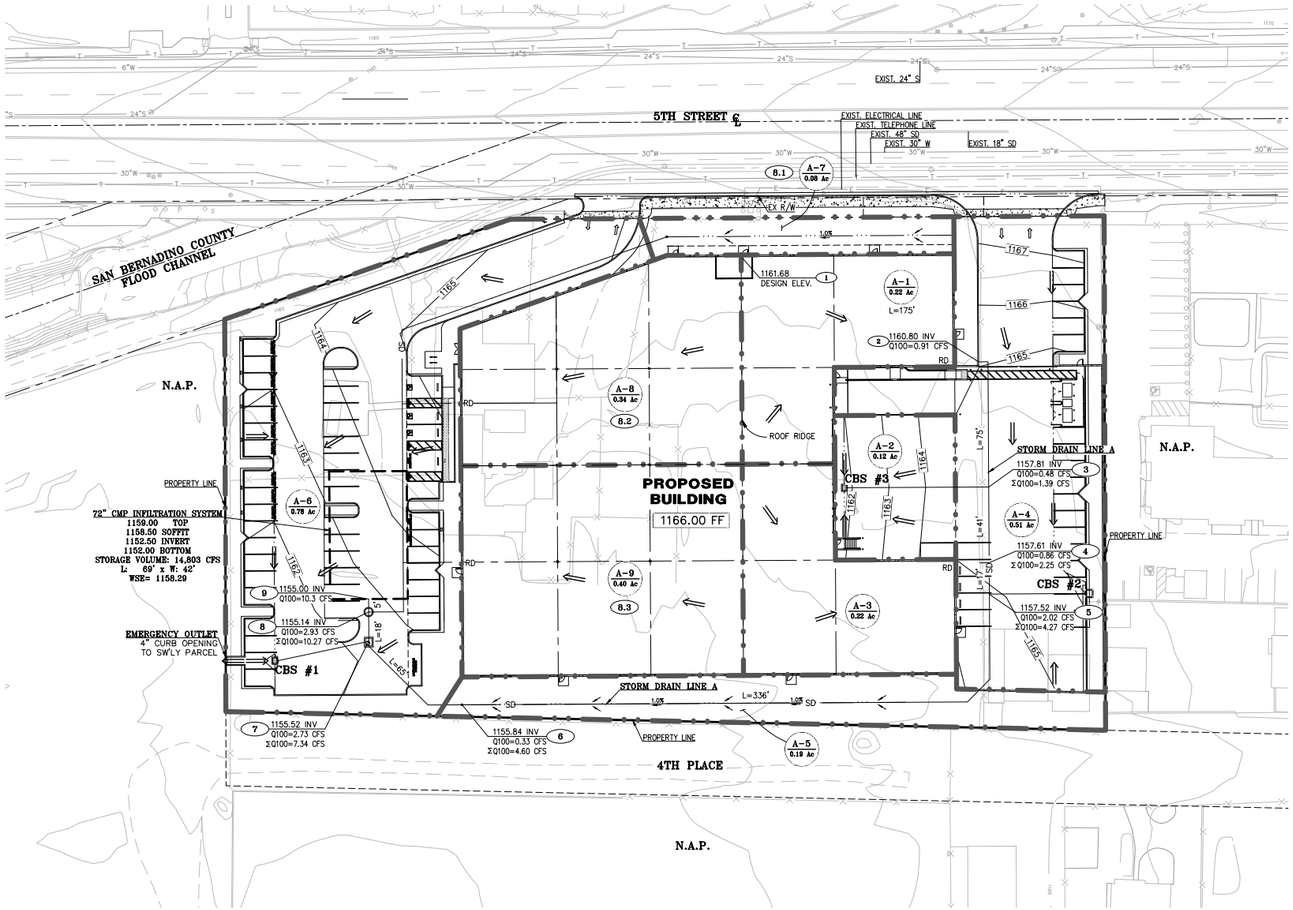
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PRELIMINARY HYDROLOGY MAP - EXIST. CONDITION
FOR
5TH AT CENTRAL INDUSTRIAL
CITY OF HIGHLAND

HUITT-ZOLLARS
HUITT-ZOLLARS, INC.
3990 CONCOURS, SUITE 330 * ONTARIO, CALIFORNIA 91764 * (909) 941-7799

DESIGNED BY R.P.	SHEET 1 OF 1 SHEETS
DRAWN BY T.A.	
CHECKED BY R.P.	
FIELD BOOK	JOB NO. R315834.01

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LEGEND

- NO. — HYDROLOGY MODEL NODE NUMBER
- A-11 / 7.40 Ac — TRIBUTARY AREA IN ACRES
- 673' — LENGTH OF FLOW
- DRAINAGE BOUNDARY
- DRAINAGE INLET/CATCH BASIN (CB)
- SD — PROPOSED STORM DRAIN
- CB — CATCH BASIN
- PD — PLANTER DRAIN
- RD — ROOF DRAIN
- ⟸ — FLOW DIRECTION

N

0 15 30 60 90

SCALE 1" = 30'

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PRELIMINARY HYDROLOGY MAP - PROP. CONDITION
FOR
5TH AT CENTRAL INDUSTRIAL
CITY OF HIGHLAND

HUITT-ZOLLARS
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3990 CONCOURS, SUITE 330 • ONTARIO, CALIFORNIA 91764 • (909) 941-7799

DESIGNED BY	R.P.
DRAWN BY	T.A.
CHECKED BY	R.P.
FIELD BOOK	
SHEET	1 OF 1 SHEETS
JOB NO.	R315834.01

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Appendix B
100-year Rational Method Hydrologic Analysis
Existing Condition
Proposed Condition

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 02/02/23

PATRIOT - 5TH AT CENTRAL INDUSTRIAL
100 YR STORM EVENT - EXISTING CONDITION
5834Q100EX
TA

Program License Serial Number 6145

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.280 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 3

++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

RESIDENTIAL(2.5 acre lot)
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.9000 Max loss rate(Fm)= 0.707(In/Hr)
Initial subarea data:
Initial area flow distance = 443.000(Ft.)
Top (of initial area) elevation = 1167.350(Ft.)
Bottom (of initial area) elevation = 1161.970(Ft.)
Difference in elevation = 5.380(Ft.)
Slope = 0.01214 s(%)= 1.210.
TC = k(0.487)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 13.465 min.
Rainfall intensity = 3.137(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.697
Subarea runoff = 6.257(CFS)
Total initial stream area = 2.860(Ac.)
Pervious area fraction = 0.900
Initial area Fm value = 0.707(In/Hr)
End of computations, Total Study Area = 2.86 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.900
Area averaged SCS curve number = 32.0

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 02/01/23

PATRIOT - 5TH AT CENTRAL INDUSTRIAL
HYDROLOGY Q100 STUDY - PROPOSED CONDITION
5834Q100P
T.A.

Program License Serial Number 6145

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.280 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 3

++

Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)
Initial subarea data:
Initial area flow distance = 175.000(Ft.)
Top (of initial area) elevation = 1161.680(Ft.)
Bottom (of initial area) elevation = 1160.800(Ft.)
Difference in elevation = 0.880(Ft.)
Slope = 0.00503 s(%)= 0.50
TC = k(0.304)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 6.915 min.
Rainfall intensity = 4.680(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.885
Subarea runoff = 0.911(CFS)
Total initial stream area = 0.220(Ac.)
Pervious area fraction = 0.100
Initial area Fm value = 0.079(In/Hr)

++

Process from Point/Station 2.000 to Point/Station 3.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1160.800(Ft.)
Downstream point/station elevation = 1157.810(Ft.)
Pipe length = 75.00(Ft.) Manning's N = 0.011
No. of pipes = 1 Required pipe flow = 0.911(CFS)

```
Nearest computed pipe diameter  =      6.00(In.)
Calculated individual pipe flow  =     0.911(CFS)
Normal flow depth in pipe =    3.66(In.)
Flow top width inside pipe =    5.85(In.)
Critical Depth =    5.55(In.)
Pipe flow velocity =      7.27(Ft/s)
Travel time through pipe =    0.17 min.
Time of concentration (TC) =     7.09 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.000 to Point/Station        3.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=     0.079(In/Hr)
Time of concentration =     7.09 min.
Rainfall intensity =      4.611(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.885
Subarea runoff =      0.476(CFS) for    0.120(Ac.)
Total runoff =      1.387(CFS)
Effective area this stream =        0.34(Ac.)
Total Study Area (Main Stream No. 1) =        0.34(Ac.)
Area averaged Fm value =    0.079(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.000 to Point/Station        4.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1157.810(Ft.)
Downstream point/station elevation =  1157.610(Ft.)
Pipe length  =    41.00(Ft.)   Manning's N = 0.011
No. of pipes = 1  Required pipe flow  =     1.387(CFS)
Nearest computed pipe diameter  =     12.00(In.)
Calculated individual pipe flow  =     1.387(CFS)
Normal flow depth in pipe =    5.80(In.)
Flow top width inside pipe =   11.99(In.)
Critical Depth =    5.97(In.)
Pipe flow velocity =      3.69(Ft/s)
Travel time through pipe =    0.19 min.
Time of concentration (TC) =     7.27 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.000 to Point/Station        4.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=     0.079(In/Hr)
```

```
Time of concentration =     7.27 min.
Rainfall intensity =      4.540(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.884
Subarea runoff =      0.862(CFS) for    0.220(Ac.)
Total runoff =      2.249(CFS)
Effective area this stream =        0.56(Ac.)
Total Study Area (Main Stream No. 1) =        0.56(Ac.)
Area averaged Fm value =    0.079(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.000 to Point/Station        5.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1157.610(Ft.)
Downstream point/station elevation =  1157.520(Ft.)
Pipe length  =    17.00(Ft.)   Manning's N = 0.011
No. of pipes = 1  Required pipe flow  =     2.249(CFS)
Nearest computed pipe diameter  =     12.00(In.)
Calculated individual pipe flow  =     2.249(CFS)
Normal flow depth in pipe =    7.64(In.)
Flow top width inside pipe =   11.54(In.)
Critical Depth =    7.70(In.)
Pipe flow velocity =      4.26(Ft/s)
Travel time through pipe =    0.07 min.
Time of concentration (TC) =     7.34 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        5.000 to Point/Station        5.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=     0.079(In/Hr)
Time of concentration =     7.34 min.
Rainfall intensity =      4.516(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.884
Subarea runoff =      2.024(CFS) for    0.510(Ac.)
Total runoff =      4.273(CFS)
Effective area this stream =        1.07(Ac.)
Total Study Area (Main Stream No. 1) =        1.07(Ac.)
Area averaged Fm value =    0.079(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        5.000 to Point/Station        6.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1157.520(Ft.)
Downstream point/station elevation =  1155.840(Ft.)
Pipe length  =   336.00(Ft.)   Manning's N = 0.011
No. of pipes = 1  Required pipe flow  =     4.273(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =     4.273(CFS)
Normal flow depth in pipe =   10.07(In.)
```

```
Flow top width inside pipe =   14.09(In.)
Critical Depth =   10.04(In.)
Pipe flow velocity =      4.88(Ft/s)
Travel time through pipe =    1.15 min.
Time of concentration (TC) =     8.49 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        6.000 to Point/Station        6.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=     0.079(In/Hr)
Time of concentration =     8.49 min.
Rainfall intensity =      4.139(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.883
Subarea runoff =      0.331(CFS) for    0.190(Ac.)
Total runoff =      4.604(CFS)
Effective area this stream =        1.26(Ac.)
Total Study Area (Main Stream No. 1) =        1.26(Ac.)
Area averaged Fm value =    0.079(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        6.000 to Point/Station        7.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1155.840(Ft.)
Downstream point/station elevation =  1155.520(Ft.)
Pipe length  =    65.00(Ft.)   Manning's N = 0.011
No. of pipes = 1  Required pipe flow  =     4.604(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =     4.604(CFS)
Normal flow depth in pipe =   10.71(In.)
Flow top width inside pipe =   13.56(In.)
Critical Depth =   10.44(In.)
Pipe flow velocity =      4.91(Ft/s)
Travel time through pipe =    0.22 min.
Time of concentration (TC) =     8.71 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        7.000 to Point/Station        7.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=     0.079(In/Hr)
Time of concentration =     8.71 min.
Rainfall intensity =      4.075(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
```

```
rational method)(Q=KCIA) is C = 0.883
Subarea runoff =      2.734(CFS) for    0.780(Ac.)
Total runoff =      7.338(CFS)
Effective area this stream =        2.04(Ac.)
Total Study Area (Main Stream No. 1) =        2.04(Ac.)
Area averaged Fm value =    0.079(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        7.000 to Point/Station        8.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1155.520(Ft.)
Downstream point/station elevation =  1155.140(Ft.)
Pipe length  =    18.00(Ft.)   Manning's N = 0.011
No. of pipes = 1  Required pipe flow  =     7.338(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =     7.338(CFS)
Normal flow depth in pipe =    8.91(In.)
Flow top width inside pipe =   14.73(In.)
Critical Depth =   12.96(In.)
Pipe flow velocity =      9.66(Ft/s)
Travel time through pipe =    0.03 min.
Time of concentration (TC) =     8.74 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.100 to Point/Station        8.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=     0.079(In/Hr)
Time of concentration =     8.74 min.
Rainfall intensity =      4.067(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.883
Subarea runoff =      0.271(CFS) for    0.080(Ac.)
Total runoff =      7.609(CFS)
Effective area this stream =        2.12(Ac.)
Total Study Area (Main Stream No. 1) =        2.12(Ac.)
Area averaged Fm value =    0.079(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.200 to Point/Station        8.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=     0.079(In/Hr)
Time of concentration =     8.74 min.
Rainfall intensity =      4.067(In/Hr) for a   100.0 year storm
```

```
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.883
Subarea runoff =      1.220(CFS) for    0.340(Ac.)
Total runoff =      8.830(CFS)
Effective area this stream =        2.46(Ac.)
Total Study Area (Main Stream No. 1) =        2.46(Ac.)
Area averaged Fm value =    0.079(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.300 to Point/Station        8.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=     0.079(In/Hr)
Time of concentration =     8.74 min.
Rainfall intensity =      4.067(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.883
Subarea runoff =      1.436(CFS) for    0.400(Ac.)
Total runoff =     10.265(CFS)
Effective area this stream =        2.86(Ac.)
Total Study Area (Main Stream No. 1) =        2.86(Ac.)
Area averaged Fm value =    0.079(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.000 to Point/Station        9.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1155.140(Ft.)
Downstream point/station elevation =  1155.000(Ft.)
Pipe length  =     5.00(Ft.)   Manning's N = 0.011
No. of pipes = 1  Required pipe flow  =    10.265(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =    10.265(CFS)
Normal flow depth in pipe =   10.18(In.)
Flow top width inside pipe =   14.01(In.)
Critical depth could not be calculated.
Pipe flow velocity =     11.57(Ft/s)
Travel time through pipe =    0.01 min.
Time of concentration (TC) =     8.75 min.
End of computations, Total Study Area =            2.86 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged SCS curve number =  32.0
```

Appendix C
100-year Existing & Proposed Unit Hydrograph Studies
Infiltration/ Detention System Basin Routing Studies

5th and Central Industrial

Detention/Infiltration System Routing Study Summary

Stage Storage Table

#	Depth	Elevation	Area (sf)	Incremental volume (cf)	Total Volume (cf)	Total Volume (acre-ft)	Outflow Q	Notes
1	0.0	1,152.00	2,898	0	0	0		**Bottom of 72" CMP Detention/Infiltration**
2	0.5	1,152.50	2,898	625	625	0.014	**0.53**	**Invert of 72" CMP**
3	1.0	1,153.00	2,898	866	1,490.7	0.034	**0.53**	
4	2.0	1,154.00	2,898	2,193	3,683.2	0.085	**0.53**	
5	3.0	1,155.00	2,898	2,454	6,137.4	0.141	**0.53**	
6	4.0	1,156.00	2,898	2,529	8,666.2	0.199	**0.53**	
7	5.0	1,157.00	2,898	2,454	11,120.3	0.255	**0.53**	***Meets WQMP DCV**
8	6.0	1,158.00	2,898	2,193	13,312.9	0.306	**0.53**	
9	6.5	1,158.50	2,898	866	14,178.8	0.326	**0.53**	**Soffit of 72" CMP**
10	7.0	1,159.00	2,898	625	14,803.6	0.340	**0.53**	**Top of Detention/Infiltration System**
11	8.0	1,160.00	2,898	0	14,803.6	0.340	**0.53**	
12	9.0	1,161.00	2,898	0	14,803.6	0.340	**0.53**	
72" CMP system with 6" rock top & bottom.								

Infiltration rate per geotechnical report = 39.3"/hr, Factor of Safety =5.
Unit convert = (39.3"/hr)/5 x (1'/12") X (1hr/60min) X (1 min/60 sec) = 0.0001819 ft/sec
Underground Basin open area is 42' x 69' = 2,898 sf
Therefore, Q out for basin = 2,898 X 0.00018 = 0.5275 cfs

*WQMP Design Capture Volume is 9,619 CF

Basin Routing Summary Table

00 YEAR STORM	
lax. Q Out (CFS)	**0.0**
WSE	**1158.27**

0.0 CFS to public street, 0.53 CFS into the ground

Underground System Top: 1159.00

Allowable discharge 6.38 CFS to westerly parcel (from Existing Unit Hydrograph).

The proposed underground system will fully detain Q100 without discharging any stormwater to the westerly parcel.

Date: 2/3/2023
Project Name: Infiltration Detention System - 26777 (2-3-2023 0-53-42)

City / County:
State:

Designed By:
Company:
Telephone:

CMP: Underground Detention System
Storage Volume Estimation

=Adjustable Input Cells

Contech Engineered Solutions, LLC is pleased to offer the following estimate of storage volume for the above named project. The results are submitted as an estimate only, without liability on the part of Contech Engineered Solutions, LLC for accuracy or suitability to any particular applicaton and are subject to verification of the Engineer of Record. **This tool is only applicable for rectangular shaped systems.**

Summary of Inputs

System Information		Backfill Information		Pipe & Analysis Information	
Out-to-out length (ft):	69.0	Backfill Porosity (%):	40%	System Diameter (in):	72
Out-to-out width (ft):	42.0	Depth Above Pipe (in):	6.0	Pipe Spacing (in):	36
Number of Manifolds (ea):	1.0	Depth Below Pipe (in):	6.0	Incremental Analysis (in):	6
Number of Barrels (ea):	5.0	Width At Ends (ft):	1.0	System Invert (Elevation):	1152
		Width At Sides (ft):	1.0		

Storage Volume Estimation

System		Pipe		Stone		Total System		Miscellaneous	
Depth (ft)	Elevation (ft)	Incremental Storage (cf)	Cumulative Storage (cf)	Incremental Storage (cf)	Cumulative Storage (cf)	Incremental Storage (cf)	Cumulative Storage (cf)	Percent Open Storage (%)	Ave. Surface Area (sf)
0.00	1152.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	1,249.6
0.50	1152.50	0.0	0.0	624.8	624.8	624.8	624.8	0.0%	1,249.6
1.00	1153.00	401.8	401.8	464.1	1,088.9	865.9	1,490.7	27.0%	1,960.0
1.50	1153.50	704.0	1,105.8	343.2	1,432.1	1,047.2	2,537.9	43.6%	2,207.5
2.00	1154.00	867.6	1,973.4	277.8	1,709.8	1,145.3	3,683.2	53.6%	2,362.6
2.50	1154.50	971.9	2,945.3	236.0	1,945.9	1,208.0	4,891.2	60.2%	2,461.3
3.00	1155.00	1,035.6	3,980.9	210.6	2,156.4	1,246.2	6,137.4	64.9%	2,516.8
3.50	1155.50	1,066.0	5,047.0	198.4	2,354.8	1,264.4	7,401.8	68.2%	2,534.8
4.00	1156.00	1,066.0	6,113.0	198.4	2,553.2	1,264.4	8,666.2	70.5%	2,516.8
4.50	1156.50	1,035.6	7,148.6	210.6	2,763.8	1,246.2	9,912.4	72.1%	2,461.3
5.00	1157.00	971.9	8,120.6	236.0	2,999.8	1,208.0	11,120.3	73.0%	2,362.6
5.50	1157.50	867.6	8,988.1	277.8	3,277.5	1,145.3	12,265.7	73.3%	2,207.5
6.00	1158.00	704.0	9,692.2	343.2	3,620.7	1,047.2	13,312.9	72.8%	1,960.0
6.50	1158.50	401.8	10,093.9	464.1	4,084.8	865.9	14,178.8	71.2%	1,249.6
7.00	1159.00	0.0	10,093.9	624.8	4,709.6	624.8	14,803.6	68.2%	1,249.6

REACHES TO WQMP DCV VOLUME

These results are submitted to you as a guideline only, without liability on the part of CONTECH Engineered Solutions, LLC for accuracy or suitability to any particular application, and are subject to your verification.

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 02/06/23

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6145

5TH AT CENTRAL INDUSTRIAL
UNIT HYDROGRAPH - 100 YEAR STORM EVENT EXISTING CONDITION
5834UHQ100E
RP

Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
2.86	1	1.28
Rainfall data for year 100		
2.86	6	2.56
Rainfall data for year 100		
2.86	24	5.70

++

******** Area-averaged max loss rate, Fm ********

SCS curve No.(AMCII)	SCS curve NO.(AMC 3)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.0	52.0	2.86	1.000	0.785	0.900	0.707

Area-averaged adjusted loss rate Fm (In/Hr) = 0.707

********* Area-Averaged low loss rate fraction, Yb **********

Area	Area	SCS CN	SCS CN	S	Pervious

```
 (Ac.)      Fract         (AMC2)    (AMC3)           Yield Fr
    2.57   0.900         32.0      52.0       9.23     0.199
    0.29   0.100         98.0      98.0       0.20     0.958

Area-averaged catchment yield fraction, Y =  0.275
Area-averaged low loss fraction, Yb =  0.725
User entry of time of concentration  =   0.165 (hours)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Watershed area =       2.86(Ac.)
Catchment Lag time =   0.132 hours
Unit interval =   5.000 minutes
Unit interval percentage of lag time = 63.1313
Hydrograph baseflow =     0.00(CFS)
Average maximum watershed loss rate(Fm) =  0.707(In/Hr)
Average low loss rate fraction (Yb) = 0.725 (decimal)
VALLEY UNDEVELOPED S-Graph Selected
Computed peak 5-minute rainfall =  0.474(In)
Computed peak 30-minute rainfall =  0.970(In)
Specified peak 1-hour rainfall =  1.280(In)
Computed peak 3-hour rainfall =  1.958(In)
Specified peak 6-hour rainfall =  2.560(In)
Specified peak 24-hour rainfall =  5.700(In)


Rainfall depth area reduction factors:
Using a total area of       2.86(Ac.) (Ref: fig. E-4)

5-minute factor = 1.000     Adjusted rainfall =  0.474(In)
30-minute factor = 1.000    Adjusted rainfall =  0.970(In)
1-hour factor = 1.000       Adjusted rainfall =  1.280(In)
3-hour factor = 1.000       Adjusted rainfall =  1.958(In)
6-hour factor = 1.000       Adjusted rainfall =  2.560(In)
24-hour factor = 1.000      Adjusted rainfall =  5.700(In)
------------------------------------------------------------------------

                    U n i t  H y d r o g r a p h
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Interval          'S' Graph          Unit Hydrograph
Number            Mean values             ((CFS))
------------------------------------------------------------------------
              (K =        34.59 (CFS))

  1                8.940                    3.092
  2               45.032                   12.483
  3               70.552                    8.827
  4               80.370                    3.396
  5               86.267                    2.040
  6               90.228                    1.370
  7               92.989                    0.955
  8               95.002                    0.696
  9               96.595                    0.551
 10               97.764                    0.404
 11               98.618                    0.295
 12               99.260                    0.222
 13              100.000                    0.111
------------------------------------------------------------------------
------------------------------------------------------------------------
------------------------------------------------------------------------
Total soil rain loss =      3.77(In)
Total effective rainfall =      1.93(In)
Peak flow rate in flood hydrograph =      6.38(CFS)
------------------------------------------------------------------------
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

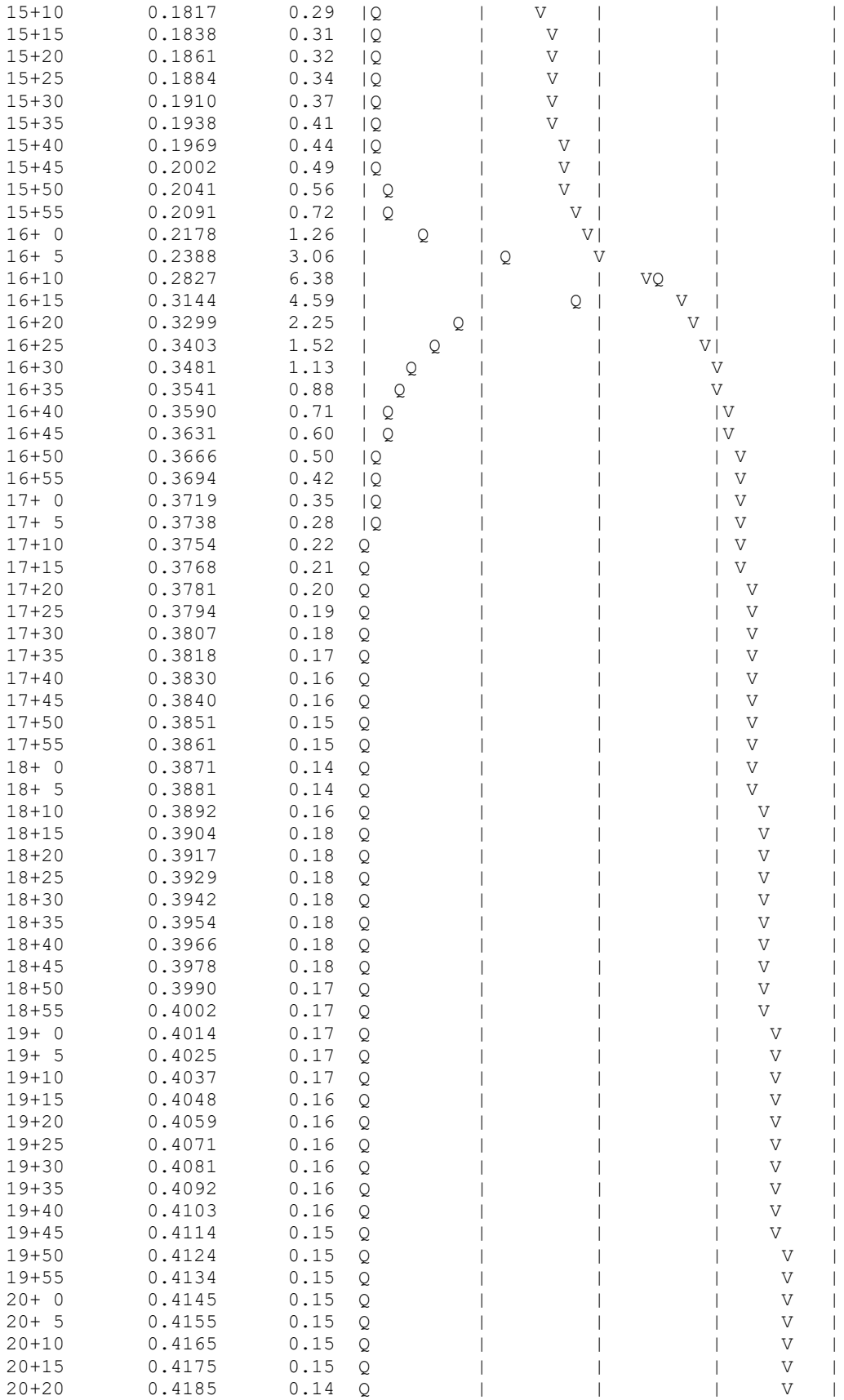
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.01	Q				
0+10	0.0004	0.05	Q				
0+15	0.0009	0.08	Q				
0+20	0.0015	0.09	Q				
0+25	0.0022	0.09	Q				
0+30	0.0029	0.10	Q				
0+35	0.0036	0.10	Q				
0+40	0.0043	0.10	Q				
0+45	0.0050	0.11	Q				
0+50	0.0058	0.11	Q				
0+55	0.0065	0.11	Q				
1+ 0	0.0073	0.11	Q				
1+ 5	0.0080	0.11	Q				
1+10	0.0088	0.11	Q				
1+15	0.0096	0.11	Q				
1+20	0.0103	0.11	Q				
1+25	0.0111	0.11	Q				
1+30	0.0119	0.11	QV				
1+35	0.0127	0.11	QV				
1+40	0.0134	0.11	QV				
1+45	0.0142	0.11	QV				
1+50	0.0150	0.11	QV				
1+55	0.0158	0.11	QV				
2+ 0	0.0165	0.11	QV				
2+ 5	0.0173	0.11	QV				
2+10	0.0181	0.11	QV				
2+15	0.0189	0.11	QV				
2+20	0.0197	0.11	QV				
2+25	0.0205	0.12	QV				
2+30	0.0213	0.12	QV				
2+35	0.0221	0.12	QV				
2+40	0.0229	0.12	QV				
2+45	0.0237	0.12	Q V				
2+50	0.0245	0.12	Q V				
2+55	0.0253	0.12	Q V				
3+ 0	0.0261	0.12	Q V				
3+ 5	0.0269	0.12	Q V				
3+10	0.0277	0.12	Q V				
3+15	0.0285	0.12	Q V				
3+20	0.0293	0.12	Q V				
3+25	0.0302	0.12	Q V				
3+30	0.0310	0.12	Q V				
3+35	0.0318	0.12	Q V				
3+40	0.0326	0.12	Q V				
3+45	0.0335	0.12	Q V				
3+50	0.0343	0.12	Q V				
3+55	0.0351	0.12	Q V				
4+ 0	0.0360	0.12	Q V				
4+ 5	0.0368	0.12	Q V				
4+10	0.0376	0.12	Q V				
4+15	0.0385	0.12	Q V				
4+20	0.0393	0.12	Q V				
4+25	0.0402	0.12	Q V				
4+30	0.0410	0.12	Q V				
4+35	0.0419	0.12	Q V				

4+40	0.0427	0.12	Q	V				
4+45	0.0436	0.12	Q	V				
4+50	0.0444	0.12	Q	V				
4+55	0.0453	0.13	Q	V				
5+ 0	0.0462	0.13	Q	V				
5+ 5	0.0470	0.13	Q	V				
5+10	0.0479	0.13	Q	V				
5+15	0.0488	0.13	Q	V				
5+20	0.0496	0.13	Q	V				
5+25	0.0505	0.13	Q	V				
5+30	0.0514	0.13	Q	V				
5+35	0.0523	0.13	Q	V				
5+40	0.0532	0.13	Q	V				
5+45	0.0541	0.13	Q	V				
5+50	0.0550	0.13	Q	V				
5+55	0.0559	0.13	Q	V				
6+ 0	0.0568	0.13	Q	V				
6+ 5	0.0577	0.13	Q	V				
6+10	0.0586	0.13	Q	V				
6+15	0.0595	0.13	Q	V				
6+20	0.0604	0.13	Q	V				
6+25	0.0613	0.13	Q	V				
6+30	0.0622	0.13	Q	V				
6+35	0.0631	0.13	Q	V				
6+40	0.0641	0.13	Q	V				
6+45	0.0650	0.13	Q	V				
6+50	0.0659	0.14	Q	V				
6+55	0.0669	0.14	Q	V				
7+ 0	0.0678	0.14	Q	V				
7+ 5	0.0688	0.14	Q	V				
7+10	0.0697	0.14	Q	V				
7+15	0.0706	0.14	Q	V				
7+20	0.0716	0.14	Q	V				
7+25	0.0726	0.14	Q	V				
7+30	0.0735	0.14	Q	V				
7+35	0.0745	0.14	Q	V				
7+40	0.0755	0.14	Q	V				
7+45	0.0764	0.14	Q	V				
7+50	0.0774	0.14	Q	V				
7+55	0.0784	0.14	Q	V				
8+ 0	0.0794	0.14	Q	V				
8+ 5	0.0804	0.14	Q	V				
8+10	0.0814	0.14	Q	V				
8+15	0.0824	0.15	Q	V				
8+20	0.0834	0.15	Q	V				
8+25	0.0844	0.15	Q	V				
8+30	0.0854	0.15	Q	V				
8+35	0.0864	0.15	Q	V				
8+40	0.0874	0.15	Q	V				
8+45	0.0884	0.15	Q	V				
8+50	0.0895	0.15	Q	V				
8+55	0.0905	0.15	Q	V				
9+ 0	0.0916	0.15	Q	V				
9+ 5	0.0926	0.15	Q	V				
9+10	0.0937	0.15	Q	V				
9+15	0.0947	0.15	Q	V				
9+20	0.0958	0.15	Q	V				
9+25	0.0968	0.15	Q	V				
9+30	0.0979	0.16	Q	V				
9+35	0.0990	0.16	Q	V				
9+40	0.1001	0.16	Q	V				
9+45	0.1012	0.16	Q	V				
9+50	0.1023	0.16	Q	V				

9+55	0.1034	0.16	Q	V|	|	|	|
10+ 0	0.1045	0.16	Q	V|	|	|	|
10+ 5	0.1056	0.16	Q	V|	|	|	|
10+10	0.1067	0.16	Q	V|	|	|	|
10+15	0.1078	0.16	Q	V|	|	|	|
10+20	0.1090	0.16	Q	V|	|	|	|
10+25	0.1101	0.17	Q	V|	|	|	|
10+30	0.1113	0.17	Q	V|	|	|	|
10+35	0.1124	0.17	Q	V|	|	|	|
10+40	0.1136	0.17	Q	V|	|	|	|
10+45	0.1147	0.17	Q	V	|	|	|
10+50	0.1159	0.17	Q	V	|	|	|
10+55	0.1171	0.17	Q	V	|	|	|
11+ 0	0.1183	0.17	Q	V	|	|	|
11+ 5	0.1195	0.17	Q	V	|	|	|
11+10	0.1207	0.18	Q	V	|	|	|
11+15	0.1219	0.18	Q	V	|	|	|
11+20	0.1232	0.18	Q	V	|	|	|
11+25	0.1244	0.18	Q	V	|	|	|
11+30	0.1256	0.18	Q	V	|	|	|
11+35	0.1269	0.18	Q	|V	|	|	|
11+40	0.1282	0.18	Q	|V	|	|	|
11+45	0.1294	0.18	Q	|V	|	|	|
11+50	0.1307	0.19	Q	|V	|	|	|
11+55	0.1320	0.19	Q	|V	|	|	|
12+ 0	0.1333	0.19	Q	|V	|	|	|
12+ 5	0.1346	0.19	Q	|V	|	|	|
12+10	0.1357	0.16	Q	|V	|	|	|
12+15	0.1367	0.15	Q	|V	|	|	|
12+20	0.1377	0.14	Q	| V	|	|	|
12+25	0.1387	0.14	Q	| V	|	|	|
12+30	0.1397	0.14	Q	| V	|	|	|
12+35	0.1407	0.14	Q	| V	|	|	|
12+40	0.1416	0.14	Q	| V	|	|	|
12+45	0.1426	0.14	Q	| V	|	|	|
12+50	0.1436	0.14	Q	| V	|	|	|
12+55	0.1446	0.15	Q	| V	|	|	|
13+ 0	0.1456	0.15	Q	| V	|	|	|
13+ 5	0.1467	0.15	Q	| V	|	|	|
13+10	0.1477	0.15	Q	| V	|	|	|
13+15	0.1488	0.16	Q	| V	|	|	|
13+20	0.1499	0.16	Q	| V	|	|	|
13+25	0.1510	0.16	Q	| V	|	|	|
13+30	0.1521	0.16	Q	| V	|	|	|
13+35	0.1533	0.17	Q	| V	|	|	|
13+40	0.1544	0.17	Q	| V	|	|	|
13+45	0.1556	0.17	Q	| V	|	|	|
13+50	0.1569	0.18	Q	| V	|	|	|
13+55	0.1581	0.18	Q	| V	|	|	|
14+ 0	0.1594	0.19	Q	| V	|	|	|
14+ 5	0.1607	0.19	Q	| V	|	|	|
14+10	0.1620	0.19	Q	| V	|	|	|
14+15	0.1634	0.20	Q	| V	|	|	|
14+20	0.1648	0.20	Q	| V	|	|	|
14+25	0.1663	0.21	Q	| V	|	|	|
14+30	0.1677	0.22	Q	| V	|	|	|
14+35	0.1693	0.22	Q	| V	|	|	|
14+40	0.1709	0.23	Q	| V	|	|	|
14+45	0.1725	0.24	Q	| V	|	|	|
14+50	0.1742	0.25	Q	| V	|	|	|
14+55	0.1760	0.26	|Q	| V	|	|	|
15+ 0	0.1778	0.27	|Q	| V	|	|	|
15+ 5	0.1797	0.28	|Q	| V	|	|	|



```
  20+25       0.4195      0.14  Q          |          |          |     V    |
  20+30       0.4205      0.14  Q          |          |          |     V    |
  20+35       0.4214      0.14  Q          |          |          |     V    |
  20+40       0.4224      0.14  Q          |          |          |     V    |
  20+45       0.4233      0.14  Q          |          |          |     V    |
  20+50       0.4243      0.14  Q          |          |          |      V   |
  20+55       0.4252      0.14  Q          |          |          |      V   |
  21+ 0       0.4262      0.14  Q          |          |          |      V   |
  21+ 5       0.4271      0.13  Q          |          |          |      V   |
  21+10       0.4280      0.13  Q          |          |          |      V   |
  21+15       0.4289      0.13  Q          |          |          |      V   |
  21+20       0.4298      0.13  Q          |          |          |      V   |
  21+25       0.4307      0.13  Q          |          |          |      V   |
  21+30       0.4316      0.13  Q          |          |          |      V   |
  21+35       0.4325      0.13  Q          |          |          |      V   |
  21+40       0.4334      0.13  Q          |          |          |      V   |
  21+45       0.4342      0.13  Q          |          |          |      V   |
  21+50       0.4351      0.13  Q          |          |          |       V  |
  21+55       0.4360      0.13  Q          |          |          |       V  |
  22+ 0       0.4368      0.12  Q          |          |          |       V  |
  22+ 5       0.4377      0.12  Q          |          |          |       V  |
  22+10       0.4385      0.12  Q          |          |          |       V  |
  22+15       0.4394      0.12  Q          |          |          |       V  |
  22+20       0.4402      0.12  Q          |          |          |       V  |
  22+25       0.4411      0.12  Q          |          |          |       V  |
  22+30       0.4419      0.12  Q          |          |          |       V  |
  22+35       0.4427      0.12  Q          |          |          |       V  |
  22+40       0.4435      0.12  Q          |          |          |       V  |
  22+45       0.4443      0.12  Q          |          |          |       V  |
  22+50       0.4452      0.12  Q          |          |          |       V  |
  22+55       0.4460      0.12  Q          |          |          |       V  |
  23+ 0       0.4468      0.12  Q          |          |          |        V |
  23+ 5       0.4476      0.12  Q          |          |          |        V |
  23+10       0.4484      0.12  Q          |          |          |        V |
  23+15       0.4491      0.11  Q          |          |          |        V |
  23+20       0.4499      0.11  Q          |          |          |        V |
  23+25       0.4507      0.11  Q          |          |          |        V |
  23+30       0.4515      0.11  Q          |          |          |        V |
  23+35       0.4523      0.11  Q          |          |          |        V |
  23+40       0.4530      0.11  Q          |          |          |        V |
  23+45       0.4538      0.11  Q          |          |          |        V |
  23+50       0.4546      0.11  Q          |          |          |        V |
  23+55       0.4553      0.11  Q          |          |          |        V |
  24+ 0       0.4561      0.11  Q          |          |          |        V |
  24+ 5       0.4568      0.10  Q          |          |          |        V |
  24+10       0.4572      0.06  Q          |          |          |        V |
  24+15       0.4574      0.03  Q          |          |          |        V |
  24+20       0.4575      0.02  Q          |          |          |        V |
  24+25       0.4576      0.01  Q          |          |          |        V |
  24+30       0.4577      0.01  Q          |          |          |        V |
  24+35       0.4578      0.01  Q          |          |          |        V |
  24+40       0.4578      0.01  Q          |          |          |        V |
  24+45       0.4578      0.00  Q          |          |          |        V |
  24+50       0.4578      0.00  Q          |          |          |        V |
  24+55       0.4578      0.00  Q          |          |          |        V |
  25+ 0       0.4578      0.00  Q          |          |          |        V |
-------------------------------------------------------------------------
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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 02/02/23

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6145

5TH AT CENTRAL INDUSTRAIL
UNITHYDROGRAPH - 100 YEAR STROM EVENT PROPOSED CONDITION5TH
5834UNQ100P
RP

Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
2.86	1	1.28
Rainfall data for year 100		
2.86	6	2.56
Rainfall data for year 100		
2.86	24	5.70

++

******** Area-averaged max loss rate, Fm ********

SCS curve No.(AMCII)	SCS curve NO.(AMC 3)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.0	52.0	2.86	1.000	0.785	0.100	0.079

Area-averaged adjusted loss rate Fm (In/Hr) = 0.079

********* Area-Averaged low loss rate fraction, Yb **********

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC3)	S	Pervious Yield Fr

```
     0.29   0.100         32.0      52.0       9.23     0.199
     2.57   0.900         98.0      98.0       0.20     0.958

  Area-averaged catchment yield fraction, Y =  0.882
  Area-averaged low loss fraction, Yb =  0.118
  User entry of time of concentration  =   0.133 (hours)
  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
  Watershed area =       2.86(Ac.)
  Catchment Lag time =   0.106 hours
  Unit interval =   5.000 minutes
  Unit interval percentage of lag time = 78.3208
  Hydrograph baseflow =     0.00(CFS)
  Average maximum watershed loss rate(Fm) =  0.079(In/Hr)
  Average low loss rate fraction (Yb) = 0.118 (decimal)
  VALLEY DEVELOPED S-Graph Selected
  Computed peak 5-minute rainfall =  0.474(In)
  Computed peak 30-minute rainfall =  0.970(In)
  Specified peak 1-hour rainfall =  1.280(In)
  Computed peak 3-hour rainfall =  1.958(In)
  Specified peak 6-hour rainfall =  2.560(In)
  Specified peak 24-hour rainfall =  5.700(In)


  Rainfall depth area reduction factors:
  Using a total area of       2.86(Ac.) (Ref: fig. E-4)

  5-minute factor = 1.000     Adjusted rainfall =  0.474(In)
  30-minute factor = 1.000    Adjusted rainfall =  0.970(In)
  1-hour factor = 1.000       Adjusted rainfall =  1.280(In)
  3-hour factor = 1.000       Adjusted rainfall =  1.958(In)
  6-hour factor = 1.000       Adjusted rainfall =  2.560(In)
  24-hour factor = 1.000      Adjusted rainfall =  5.700(In)
  ----------------------------------------------------------------------

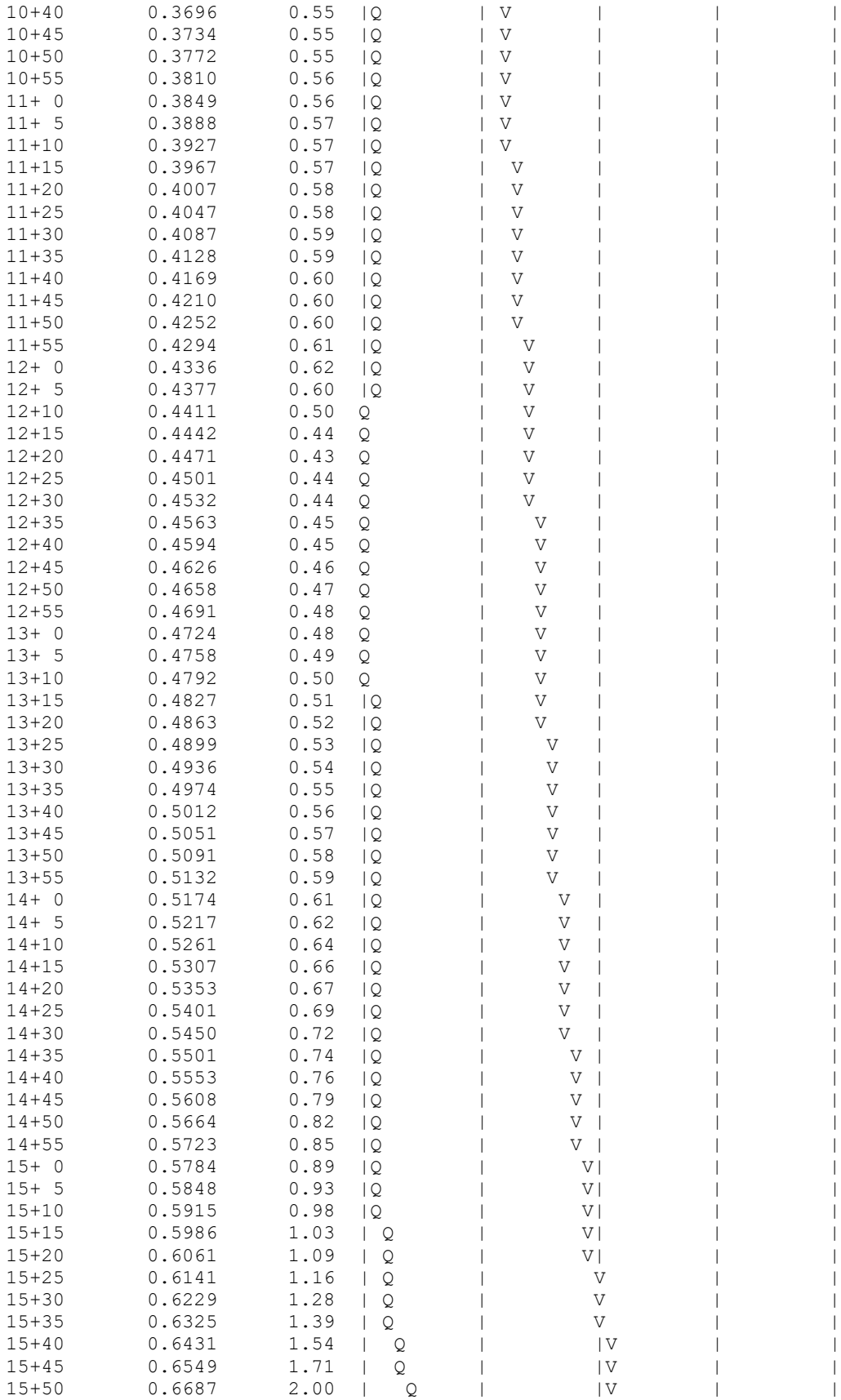
                     U n i t  H y d r o g r a p h
  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
  Interval          'S' Graph          Unit Hydrograph
  Number            Mean values             ((CFS))
  ----------------------------------------------------------------------
               (K =        34.59 (CFS))

    1               10.863                   3.757
    2               62.127                  17.731
    3               93.380                  10.810
    4               98.730                   1.850
    5              100.000                   0.439
  ----------------------------------------------------------------------
  ----------------------------------------------------------------------
  ----------------------------------------------------------------------
  Total soil rain loss =      0.59(In)
  Total effective rainfall =      5.11(In)
  Peak flow rate in flood hydrograph =     10.38(CFS)
  ----------------------------------------------------------------------
  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                     24 - H O U R    S T O R M
                R u n o f f      H y d r o g r a p h
  ----------------------------------------------------------------------
              Hydrograph in   5   Minute intervals ((CFS))

  ----------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
----------------------------------------------------------------------
  0+ 5       0.0003      0.04  Q         |         |         |         |
```

0+10	0.0018	0.22	Q	|	|	|	|
0+15	0.0040	0.33	Q	|	|	|	|
0+20	0.0064	0.35	Q	|	|	|	|
0+25	0.0088	0.35	Q	|	|	|	|
0+30	0.0112	0.35	Q	|	|	|	|
0+35	0.0137	0.35	Q	|	|	|	|
0+40	0.0161	0.35	Q	|	|	|	|
0+45	0.0185	0.35	Q	|	|	|	|
0+50	0.0210	0.35	Q	|	|	|	|
0+55	0.0234	0.36	Q	|	|	|	|
1+ 0	0.0259	0.36	Q	|	|	|	|
1+ 5	0.0283	0.36	Q	|	|	|	|
1+10	0.0308	0.36	QV	|	|	|	|
1+15	0.0333	0.36	QV	|	|	|	|
1+20	0.0358	0.36	QV	|	|	|	|
1+25	0.0382	0.36	QV	|	|	|	|
1+30	0.0407	0.36	QV	|	|	|	|
1+35	0.0432	0.36	QV	|	|	|	|
1+40	0.0457	0.36	QV	|	|	|	|
1+45	0.0482	0.36	QV	|	|	|	|
1+50	0.0508	0.37	QV	|	|	|	|
1+55	0.0533	0.37	QV	|	|	|	|
2+ 0	0.0558	0.37	QV	|	|	|	|
2+ 5	0.0583	0.37	QV	|	|	|	|
2+10	0.0609	0.37	Q V	|	|	|	|
2+15	0.0634	0.37	Q V	|	|	|	|
2+20	0.0660	0.37	Q V	|	|	|	|
2+25	0.0685	0.37	Q V	|	|	|	|
2+30	0.0711	0.37	Q V	|	|	|	|
2+35	0.0737	0.37	Q V	|	|	|	|
2+40	0.0763	0.37	Q V	|	|	|	|
2+45	0.0788	0.38	Q V	|	|	|	|
2+50	0.0814	0.38	Q V	|	|	|	|
2+55	0.0840	0.38	Q V	|	|	|	|
3+ 0	0.0866	0.38	Q V	|	|	|	|
3+ 5	0.0893	0.38	Q V	|	|	|	|
3+10	0.0919	0.38	Q V	|	|	|	|
3+15	0.0945	0.38	Q V	|	|	|	|
3+20	0.0971	0.38	Q V	|	|	|	|
3+25	0.0998	0.38	Q V	|	|	|	|
3+30	0.1024	0.38	Q V	|	|	|	|
3+35	0.1051	0.39	Q V	|	|	|	|
3+40	0.1078	0.39	Q V	|	|	|	|
3+45	0.1104	0.39	Q V	|	|	|	|
3+50	0.1131	0.39	Q V	|	|	|	|
3+55	0.1158	0.39	Q V	|	|	|	|
4+ 0	0.1185	0.39	Q V	|	|	|	|
4+ 5	0.1212	0.39	Q V	|	|	|	|
4+10	0.1239	0.39	Q V	|	|	|	|
4+15	0.1266	0.39	Q V	|	|	|	|
4+20	0.1294	0.40	Q V	|	|	|	|
4+25	0.1321	0.40	Q V	|	|	|	|
4+30	0.1348	0.40	Q V	|	|	|	|
4+35	0.1376	0.40	Q V	|	|	|	|
4+40	0.1403	0.40	Q V	|	|	|	|
4+45	0.1431	0.40	Q V	|	|	|	|
4+50	0.1459	0.40	Q V	|	|	|	|
4+55	0.1487	0.40	Q V	|	|	|	|
5+ 0	0.1515	0.41	Q V	|	|	|	|
5+ 5	0.1543	0.41	Q V	|	|	|	|
5+10	0.1571	0.41	Q V	|	|	|	|
5+15	0.1599	0.41	Q V	|	|	|	|
5+20	0.1627	0.41	Q V	|	|	|	|

5+25	0.1656	0.41	Q	V	|	|	|	|
5+30	0.1684	0.41	Q	V	|	|	|	|
5+35	0.1713	0.42	Q	V	|	|	|	|
5+40	0.1742	0.42	Q	V	|	|	|	|
5+45	0.1770	0.42	Q	V	|	|	|	|
5+50	0.1799	0.42	Q	V	|	|	|	|
5+55	0.1828	0.42	Q	V	|	|	|	|
6+ 0	0.1857	0.42	Q	V	|	|	|	|
6+ 5	0.1886	0.42	Q	V	|	|	|	|
6+10	0.1916	0.43	Q	V	|	|	|	|
6+15	0.1945	0.43	Q	V	|	|	|	|
6+20	0.1975	0.43	Q	V	|	|	|	|
6+25	0.2004	0.43	Q	V	|	|	|	|
6+30	0.2034	0.43	Q	V	|	|	|	|
6+35	0.2064	0.43	Q	V	|	|	|	|
6+40	0.2094	0.43	Q	V	|	|	|	|
6+45	0.2124	0.44	Q	V	|	|	|	|
6+50	0.2154	0.44	Q	V	|	|	|	|
6+55	0.2184	0.44	Q	V	|	|	|	|
7+ 0	0.2214	0.44	Q	V	|	|	|	|
7+ 5	0.2245	0.44	Q	V	|	|	|	|
7+10	0.2276	0.44	Q	V	|	|	|	|
7+15	0.2306	0.45	Q	V	|	|	|	|
7+20	0.2337	0.45	Q	V	|	|	|	|
7+25	0.2368	0.45	Q	V	|	|	|	|
7+30	0.2399	0.45	Q	V	|	|	|	|
7+35	0.2430	0.45	Q	V	|	|	|	|
7+40	0.2462	0.46	Q	V	|	|	|	|
7+45	0.2493	0.46	Q	V	|	|	|	|
7+50	0.2525	0.46	Q	V	|	|	|	|
7+55	0.2557	0.46	Q	V	|	|	|	|
8+ 0	0.2589	0.46	Q	V	|	|	|	|
8+ 5	0.2621	0.47	Q	V	|	|	|	|
8+10	0.2653	0.47	Q	V	|	|	|	|
8+15	0.2685	0.47	Q	V	|	|	|	|
8+20	0.2718	0.47	Q	V	|	|	|	|
8+25	0.2750	0.47	Q	V	|	|	|	|
8+30	0.2783	0.48	Q	V	|	|	|	|
8+35	0.2816	0.48	Q	V	|	|	|	|
8+40	0.2849	0.48	Q	V	|	|	|	|
8+45	0.2882	0.48	Q	V	|	|	|	|
8+50	0.2915	0.48	Q	V	|	|	|	|
8+55	0.2949	0.49	Q	V	|	|	|	|
9+ 0	0.2983	0.49	Q	V	|	|	|	|
9+ 5	0.3016	0.49	Q	V	|	|	|	|
9+10	0.3051	0.49	Q	V	|	|	|	|
9+15	0.3085	0.50	Q	V	|	|	|	|
9+20	0.3119	0.50	Q	V	|	|	|	|
9+25	0.3154	0.50	|Q	V	|	|	|	|
9+30	0.3188	0.50	|Q	V	|	|	|	|
9+35	0.3223	0.51	|Q	V	|	|	|	|
9+40	0.3258	0.51	|Q	V	|	|	|	|
9+45	0.3294	0.51	|Q	V	|	|	|	|
9+50	0.3329	0.52	|Q	V	|	|	|	|
9+55	0.3365	0.52	|Q	|V	|	|	|	|
10+ 0	0.3401	0.52	|Q	|V	|	|	|	|
10+ 5	0.3437	0.52	|Q	|V	|	|	|	|
10+10	0.3473	0.53	|Q	|V	|	|	|	|
10+15	0.3510	0.53	|Q	|V	|	|	|	|
10+20	0.3547	0.53	|Q	|V	|	|	|	|
10+25	0.3584	0.54	|Q	|V	|	|	|	|
10+30	0.3621	0.54	|Q	|V	|	|	|	|
10+35	0.3658	0.54	|Q	| V	|	|	|	|



15+55	0.6853	2.42	| Q |	|	| V |	|
16+ 0	0.7079	3.28	| Q |	|	| V |	|
16+ 5	0.7465	5.60	| |	Q |	| V |	|
16+10	0.8180	10.38	| |	Q |	V |	|
16+15	0.8665	7.04	| |	Q |	| V |	|
16+20	0.8869	2.97	| Q |	|	| V |	|
16+25	0.8997	1.86	| Q |	|	| V |	|
16+30	0.9090	1.35	| Q |	|	| V |	|
16+35	0.9169	1.15	| Q |	|	| V |	|
16+40	0.9239	1.01	| Q |	|	| V |	|
16+45	0.9302	0.92	| Q |	|	| V |	|
16+50	0.9360	0.84	| Q |	|	| V |	|
16+55	0.9413	0.78	| Q |	|	| V |	|
17+ 0	0.9464	0.73	| Q |	|	| | V |	|
17+ 5	0.9511	0.69	| Q |	|	| | V |	|
17+10	0.9556	0.65	| Q |	|	| | V |	|
17+15	0.9598	0.62	| Q |	|	| | V |	|
17+20	0.9639	0.59	| Q |	|	| | V |	|
17+25	0.9678	0.57	| Q |	|	| | V |	|
17+30	0.9715	0.54	| Q |	|	| | V |	|
17+35	0.9751	0.52	| Q |	|	| | V |	|
17+40	0.9786	0.50	| Q |	|	| | V |	|
17+45	0.9820	0.49	Q |	|	| | V |	|
17+50	0.9852	0.47	Q |	|	| | V |	|
17+55	0.9884	0.46	Q |	|	| | V |	|
18+ 0	0.9914	0.45	Q |	|	| | V |	|
18+ 5	0.9946	0.46	Q |	|	| | V |	|
18+10	0.9984	0.55	| Q |	|	| | V |	|
18+15	1.0025	0.60	| Q |	|	| | V |	|
18+20	1.0067	0.61	| Q |	|	| | V |	|
18+25	1.0108	0.60	| Q |	|	| | V |	|
18+30	1.0149	0.59	| Q |	|	| | V |	|
18+35	1.0189	0.58	| Q |	|	| | V |	|
18+40	1.0228	0.57	| Q |	|	| | V |	|
18+45	1.0267	0.56	| Q |	|	| | V |	|
18+50	1.0305	0.56	| Q |	|	| | V |	|
18+55	1.0343	0.55	| Q |	|	| | V |	|
19+ 0	1.0380	0.54	| Q |	|	| | V |	|
19+ 5	1.0417	0.54	| Q |	|	| | V |	|
19+10	1.0454	0.53	| Q |	|	| | V |	|
19+15	1.0490	0.52	| Q |	|	| | V |	|
19+20	1.0525	0.52	| Q |	|	| | V |	|
19+25	1.0560	0.51	| Q |	|	| | V |	|
19+30	1.0595	0.51	| Q |	|	| | V |	|
19+35	1.0630	0.50	| Q |	|	| | V |	|
19+40	1.0664	0.50	Q |	|	| | V |	|
19+45	1.0698	0.49	Q |	|	| | V |	|
19+50	1.0731	0.49	Q |	|	| | V |	|
19+55	1.0764	0.48	Q |	|	| | V |	|
20+ 0	1.0797	0.48	Q |	|	| | V |	|
20+ 5	1.0830	0.47	Q |	|	| | V |	|
20+10	1.0862	0.47	Q |	|	| | V |	|
20+15	1.0894	0.46	Q |	|	| | V |	|
20+20	1.0926	0.46	Q |	|	| | V |	|
20+25	1.0957	0.46	Q |	|	| | V |	|
20+30	1.0988	0.45	Q |	|	| | V |	|
20+35	1.1019	0.45	Q |	|	| | V |	|
20+40	1.1050	0.45	Q |	|	| | V |	|
20+45	1.1080	0.44	Q |	|	| | V |	|
20+50	1.1110	0.44	Q |	|	| | V |	|
20+55	1.1140	0.44	Q |	|	| | V |	|
21+ 0	1.1170	0.43	Q |	|	| | V |	|
21+ 5	1.1200	0.43	Q |	|	| | V |	|

21+10	1.1229	0.43	Q				V
21+15	1.1258	0.42	Q				V
21+20	1.1287	0.42	Q				V
21+25	1.1316	0.42	Q				V
21+30	1.1344	0.41	Q				V
21+35	1.1373	0.41	Q				V
21+40	1.1401	0.41	Q				V
21+45	1.1429	0.41	Q				V
21+50	1.1457	0.40	Q				V
21+55	1.1484	0.40	Q				V
22+ 0	1.1512	0.40	Q				V
22+ 5	1.1539	0.40	Q				V
22+10	1.1566	0.39	Q				V
22+15	1.1593	0.39	Q				V
22+20	1.1620	0.39	Q				V
22+25	1.1647	0.39	Q				V
22+30	1.1673	0.39	Q				V
22+35	1.1700	0.38	Q				V
22+40	1.1726	0.38	Q				V
22+45	1.1752	0.38	Q				V
22+50	1.1778	0.38	Q				V
22+55	1.1804	0.38	Q				V
23+ 0	1.1830	0.37	Q				V
23+ 5	1.1855	0.37	Q				V
23+10	1.1881	0.37	Q				V
23+15	1.1906	0.37	Q				V
23+20	1.1931	0.37	Q				V
23+25	1.1956	0.36	Q				V
23+30	1.1981	0.36	Q				V
23+35	1.2006	0.36	Q				V
23+40	1.2031	0.36	Q				V
23+45	1.2055	0.36	Q				V
23+50	1.2080	0.36	Q				V
23+55	1.2104	0.35	Q				V
24+ 0	1.2128	0.35	Q				V
24+ 5	1.2150	0.31	Q				V
24+10	1.2159	0.13	Q				V
24+15	1.2161	0.02	Q				V
24+20	1.2161	0.00	Q				V

FLOOD HYDROGRAPH ROUTING PROGRAM
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Study date: 02/06/23

5TH AND CENTRAL INDUSTRIAL
ROUTING STUDY - 100 YEAR STORM EVENT PROPOSED CONDITION
5834ROUTING
TA

Program License Serial Number 6145

********** HYDROGRAPH INFORMATION **********

From study/file name: 5834UHQ100P.rte
**********HYDROGRAPH DATA**********
Number of intervals = 292
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 10.383 (CFS)
Total volume = 1.216 (Ac.Ft)
Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 9.000 to Point/Station 10.000
**** RETARDING BASIN ROUTING ****
_____

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 292
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.014	0.530	0.012	0.016
1.000	0.034	0.530	0.032	0.036
2.000	0.085	0.530	0.083	0.087
3.000	0.141	0.530	0.139	0.143
4.000	0.199	0.530	0.197	0.201
5.000	0.255	0.530	0.253	0.257
6.000	0.306	0.530	0.304	0.308

6.500	0.326	0.530	0.324	0.328
7.000	0.340	0.530	0.338	0.342
8.000	0.341	0.530	0.339	0.343
9.000	0.342	0.530	0.340	0.344

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	2.6	5.19	7.79	10.38	Depth (Ft.)
0.083	0.04	0.00	0.000	O					0.00
0.167	0.22	0.03	0.001	O					0.03
0.250	0.33	0.09	0.002	OI					0.08
0.333	0.35	0.15	0.004	OI					0.14
0.417	0.35	0.19	0.005	OI					0.18
0.500	0.35	0.23	0.006	OI					0.22
0.583	0.35	0.26	0.007	OI					0.24
0.667	0.35	0.28	0.007	OI					0.26
0.750	0.35	0.30	0.008	OI					0.28
0.833	0.35	0.31	0.008	OI					0.29
0.917	0.36	0.32	0.008	OI					0.30
1.000	0.36	0.33	0.009	|O					0.31
1.083	0.36	0.34	0.009	|O					0.32
1.167	0.36	0.34	0.009	|O					0.32
1.250	0.36	0.34	0.009	|O					0.33
1.333	0.36	0.35	0.009	|O					0.33
1.417	0.36	0.35	0.009	|O					0.33
1.500	0.36	0.35	0.009	|O					0.33
1.583	0.36	0.36	0.009	|O					0.34
1.667	0.36	0.36	0.009	|O					0.34
1.750	0.36	0.36	0.009	|O					0.34
1.833	0.37	0.36	0.010	|O					0.34
1.917	0.37	0.36	0.010	|O					0.34
2.000	0.37	0.36	0.010	|O					0.34
2.083	0.37	0.36	0.010	|O					0.34
2.167	0.37	0.36	0.010	|O					0.34
2.250	0.37	0.37	0.010	|O					0.35
2.333	0.37	0.37	0.010	|O					0.35
2.417	0.37	0.37	0.010	|O					0.35
2.500	0.37	0.37	0.010	|O					0.35
2.583	0.37	0.37	0.010	|O					0.35
2.667	0.37	0.37	0.010	|O					0.35
2.750	0.38	0.37	0.010	|O					0.35
2.833	0.38	0.37	0.010	|O					0.35
2.917	0.38	0.37	0.010	|O					0.35
3.000	0.38	0.37	0.010	|O					0.35
3.083	0.38	0.38	0.010	|O					0.35
3.167	0.38	0.38	0.010	|O					0.36
3.250	0.38	0.38	0.010	|O					0.36
3.333	0.38	0.38	0.010	|O					0.36
3.417	0.38	0.38	0.010	|O					0.36
3.500	0.38	0.38	0.010	|O					0.36
3.583	0.39	0.38	0.010	|O					0.36
3.667	0.39	0.38	0.010	|O					0.36
3.750	0.39	0.38	0.010	|O					0.36
3.833	0.39	0.39	0.010	|O					0.36
3.917	0.39	0.39	0.010	|O					0.36
4.000	0.39	0.39	0.010	|O					0.37
4.083	0.39	0.39	0.010	|O					0.37
4.167	0.39	0.39	0.010	|O					0.37
4.250	0.39	0.39	0.010	|O					0.37

4.333	0.40	0.39	0.010	O				0.37
4.417	0.40	0.39	0.010	O				0.37
4.500	0.40	0.39	0.010	O				0.37
4.583	0.40	0.40	0.010	O				0.37
4.667	0.40	0.40	0.010	O				0.37
4.750	0.40	0.40	0.010	O				0.37
4.833	0.40	0.40	0.011	O				0.38
4.917	0.40	0.40	0.011	O				0.38
5.000	0.41	0.40	0.011	O				0.38
5.083	0.41	0.40	0.011	O				0.38
5.167	0.41	0.40	0.011	O				0.38
5.250	0.41	0.40	0.011	O				0.38
5.333	0.41	0.41	0.011	O				0.38
5.417	0.41	0.41	0.011	O				0.38
5.500	0.41	0.41	0.011	O				0.39
5.583	0.42	0.41	0.011	O				0.39
5.667	0.42	0.41	0.011	O				0.39
5.750	0.42	0.41	0.011	O				0.39
5.833	0.42	0.41	0.011	O				0.39
5.917	0.42	0.42	0.011	O				0.39
6.000	0.42	0.42	0.011	O				0.39
6.083	0.42	0.42	0.011	O				0.39
6.167	0.43	0.42	0.011	O				0.40
6.250	0.43	0.42	0.011	O				0.40
6.333	0.43	0.42	0.011	O				0.40
6.417	0.43	0.42	0.011	O				0.40
6.500	0.43	0.43	0.011	O				0.40
6.583	0.43	0.43	0.011	O				0.40
6.667	0.43	0.43	0.011	O				0.40
6.750	0.44	0.43	0.011	O				0.41
6.833	0.44	0.43	0.011	O				0.41
6.917	0.44	0.43	0.011	O				0.41
7.000	0.44	0.43	0.011	O				0.41
7.083	0.44	0.44	0.012	O				0.41
7.167	0.44	0.44	0.012	O				0.41
7.250	0.45	0.44	0.012	O				0.41
7.333	0.45	0.44	0.012	O				0.42
7.417	0.45	0.44	0.012	O				0.42
7.500	0.45	0.44	0.012	O				0.42
7.583	0.45	0.45	0.012	O				0.42
7.667	0.46	0.45	0.012	O				0.42
7.750	0.46	0.45	0.012	O				0.42
7.833	0.46	0.45	0.012	O				0.43
7.917	0.46	0.45	0.012	O				0.43
8.000	0.46	0.46	0.012	O				0.43
8.083	0.47	0.46	0.012	O				0.43
8.167	0.47	0.46	0.012	O				0.43
8.250	0.47	0.46	0.012	O				0.44
8.333	0.47	0.46	0.012	O				0.44
8.417	0.47	0.47	0.012	O				0.44
8.500	0.48	0.47	0.012	O				0.44
8.583	0.48	0.47	0.012	O				0.44
8.667	0.48	0.47	0.012	O				0.45
8.750	0.48	0.47	0.013	O				0.45
8.833	0.48	0.48	0.013	O				0.45
8.917	0.49	0.48	0.013	O				0.45
9.000	0.49	0.48	0.013	O				0.45
9.083	0.49	0.48	0.013	O				0.46
9.167	0.49	0.49	0.013	O				0.46
9.250	0.50	0.49	0.013	O				0.46
9.333	0.50	0.49	0.013	O				0.46
9.417	0.50	0.49	0.013	O				0.46
9.500	0.50	0.49	0.013	O				0.47

9.583	0.51	0.50	0.013	O				0.47
9.667	0.51	0.50	0.013	O				0.47
9.750	0.51	0.50	0.013	O				0.47
9.833	0.52	0.51	0.013	O				0.48
9.917	0.52	0.51	0.013	O				0.48
10.000	0.52	0.51	0.013	O				0.48
10.083	0.52	0.51	0.014	O				0.48
10.167	0.53	0.52	0.014	O				0.49
10.250	0.53	0.52	0.014	O				0.49
10.333	0.53	0.52	0.014	O				0.49
10.417	0.54	0.53	0.014	O				0.50
10.500	0.54	0.53	0.014	O				0.50
10.583	0.54	0.53	0.014	O				0.50
10.667	0.55	0.53	0.014	O				0.50
10.750	0.55	0.53	0.014	O				0.51
10.833	0.55	0.53	0.014	O				0.51
10.917	0.56	0.53	0.015	O				0.52
11.000	0.56	0.53	0.015	O				0.52
11.083	0.57	0.53	0.015	O				0.53
11.167	0.57	0.53	0.015	O				0.53
11.250	0.57	0.53	0.016	O				0.54
11.333	0.58	0.53	0.016	O				0.55
11.417	0.58	0.53	0.016	O				0.56
11.500	0.59	0.53	0.017	O				0.57
11.583	0.59	0.53	0.017	O				0.58
11.667	0.60	0.53	0.017	O				0.59
11.750	0.60	0.53	0.018	O				0.60
11.833	0.60	0.53	0.018	O				0.61
11.917	0.61	0.53	0.019	O				0.62
12.000	0.62	0.53	0.020	O				0.64
12.083	0.60	0.53	0.020	O				0.65
12.167	0.50	0.53	0.020	O				0.65
12.250	0.44	0.53	0.020	O				0.64
12.333	0.43	0.53	0.019	O				0.63
12.417	0.44	0.53	0.018	O				0.61
12.500	0.44	0.53	0.018	O				0.59
12.583	0.45	0.53	0.017	O				0.58
12.667	0.45	0.53	0.017	O				0.57
12.750	0.46	0.53	0.016	O				0.55
12.833	0.47	0.53	0.016	O				0.54
12.917	0.48	0.53	0.015	O				0.53
13.000	0.48	0.53	0.015	O				0.52
13.083	0.49	0.53	0.015	O				0.52
13.167	0.50	0.53	0.014	O				0.51
13.250	0.51	0.53	0.014	O				0.51
13.333	0.52	0.53	0.014	O				0.50
13.417	0.53	0.53	0.014	O				0.50
13.500	0.54	0.53	0.014	O				0.50
13.583	0.55	0.53	0.014	O				0.50
13.667	0.56	0.53	0.014	O				0.51
13.750	0.57	0.53	0.015	O				0.51
13.833	0.58	0.53	0.015	O				0.52
13.917	0.59	0.53	0.015	O				0.53
14.000	0.61	0.53	0.016	O				0.54
14.083	0.62	0.53	0.016	O				0.56
14.167	0.64	0.53	0.017	O				0.58
14.250	0.66	0.53	0.018	OI				0.60
14.333	0.67	0.53	0.019	OI				0.62
14.417	0.69	0.53	0.020	OI				0.65
14.500	0.72	0.53	0.021	OI				0.68
14.583	0.74	0.53	0.022	OI				0.71
14.667	0.76	0.53	0.024	OI				0.75
14.750	0.79	0.53	0.026	OI				0.79

14.833	0.82	0.53	0.028	OI					0.84
14.917	0.85	0.53	0.030	OI					0.89
15.000	0.89	0.53	0.032	OI					0.95
15.083	0.93	0.53	0.035	OI					1.01
15.167	0.98	0.53	0.037	O I					1.07
15.250	1.03	0.53	0.041	O I					1.13
15.333	1.09	0.53	0.044	O I					1.20
15.417	1.16	0.53	0.049	O I					1.28
15.500	1.28	0.53	0.053	O I					1.38
15.583	1.39	0.53	0.059	O I					1.49
15.667	1.54	0.53	0.065	O I					1.61
15.750	1.71	0.53	0.073	O I					1.76
15.833	2.00	0.53	0.082	O I					1.94
15.917	2.42	0.53	0.094	O I					2.15
16.000	3.28	0.53	0.109	O	I				2.44
16.083	5.60	0.53	0.136	O		I			2.92
16.167	10.38	0.53	0.188	O				I	3.81
16.250	7.04	0.53	0.244	O			I		4.81
16.333	2.97	0.53	0.275	O	I				5.39
16.417	1.86	0.53	0.288	O I					5.65
16.500	1.35	0.53	0.295	O I					5.79
16.583	1.15	0.53	0.300	O I					5.89
16.667	1.01	0.53	0.304	O I					5.96
16.750	0.92	0.53	0.307	OI					6.03
16.833	0.84	0.53	0.309	OI					6.09
16.917	0.78	0.53	0.311	OI					6.13
17.000	0.73	0.53	0.313	OI					6.17
17.083	0.69	0.53	0.314	OI					6.20
17.167	0.65	0.53	0.315	OI					6.23
17.250	0.62	0.53	0.316	O					6.24
17.333	0.59	0.53	0.316	O					6.26
17.417	0.57	0.53	0.317	O					6.27
17.500	0.54	0.53	0.317	O					6.27
17.583	0.52	0.53	0.317	O					6.27
17.667	0.50	0.53	0.317	O					6.27
17.750	0.49	0.53	0.316	O					6.26
17.833	0.47	0.53	0.316	O					6.25
17.917	0.46	0.53	0.316	O					6.24
18.000	0.45	0.53	0.315	O					6.23
18.083	0.46	0.53	0.315	O					6.21
18.167	0.55	0.53	0.314	O					6.21
18.250	0.60	0.53	0.315	O					6.22
18.333	0.61	0.53	0.315	O					6.23
18.417	0.60	0.53	0.316	O					6.24
18.500	0.59	0.53	0.316	O					6.25
18.583	0.58	0.53	0.317	O					6.26
18.667	0.57	0.53	0.317	O					6.27
18.750	0.56	0.53	0.317	O					6.28
18.833	0.56	0.53	0.317	O					6.28
18.917	0.55	0.53	0.317	O					6.29
19.000	0.54	0.53	0.318	O					6.29
19.083	0.54	0.53	0.318	O					6.29
19.167	0.53	0.53	0.318	O					6.29
19.250	0.52	0.53	0.318	O					6.29
19.333	0.52	0.53	0.318	O					6.29
19.417	0.51	0.53	0.317	O					6.29
19.500	0.51	0.53	0.317	O					6.28
19.583	0.50	0.53	0.317	O					6.28
19.667	0.50	0.53	0.317	O					6.27
19.750	0.49	0.53	0.317	O					6.27
19.833	0.49	0.53	0.316	O					6.26
19.917	0.48	0.53	0.316	O					6.25
20.000	0.48	0.53	0.316	O					6.24

20.083	0.47	0.53	0.315	O				6.23
20.167	0.47	0.53	0.315	O				6.22
20.250	0.46	0.53	0.314	O				6.21
20.333	0.46	0.53	0.314	O				6.20
20.417	0.46	0.53	0.314	O				6.19
20.500	0.45	0.53	0.313	O				6.17
20.583	0.45	0.53	0.312	O				6.16
20.667	0.45	0.53	0.312	O				6.15
20.750	0.44	0.53	0.311	O				6.13
20.833	0.44	0.53	0.311	O				6.12
20.917	0.44	0.53	0.310	O				6.10
21.000	0.43	0.53	0.309	O				6.08
21.083	0.43	0.53	0.309	O				6.07
21.167	0.43	0.53	0.308	O				6.05
21.250	0.42	0.53	0.307	O				6.03
21.333	0.42	0.53	0.306	O				6.01
21.417	0.42	0.53	0.306	O				5.99
21.500	0.41	0.53	0.305	O				5.98
21.583	0.41	0.53	0.304	O				5.96
21.667	0.41	0.53	0.303	O				5.95
21.750	0.41	0.53	0.302	O				5.93
21.833	0.40	0.53	0.302	O				5.91
21.917	0.40	0.53	0.301	O				5.90
22.000	0.40	0.53	0.300	O				5.88
22.083	0.40	0.53	0.299	O				5.86
22.167	0.39	0.53	0.298	O				5.84
22.250	0.39	0.53	0.297	O				5.82
22.333	0.39	0.53	0.296	O				5.81
22.417	0.39	0.53	0.295	O				5.79
22.500	0.39	0.53	0.294	O				5.77
22.583	0.38	0.53	0.293	O				5.75
22.667	0.38	0.53	0.292	O				5.73
22.750	0.38	0.53	0.291	O				5.71
22.833	0.38	0.53	0.290	O				5.69
22.917	0.38	0.53	0.289	O				5.67
23.000	0.37	0.53	0.288	O				5.65
23.083	0.37	0.53	0.287	O				5.62
23.167	0.37	0.53	0.286	O				5.60
23.250	0.37	0.53	0.285	O				5.58
23.333	0.37	0.53	0.283	O				5.56
23.417	0.36	0.53	0.282	O				5.54
23.500	0.36	0.53	0.281	O				5.51
23.583	0.36	0.53	0.280	O				5.49
23.667	0.36	0.53	0.279	O				5.47
23.750	0.36	0.53	0.278	O				5.44
23.833	0.36	0.53	0.276	O				5.42
23.917	0.35	0.53	0.275	O				5.40
24.000	0.35	0.53	0.274	O				5.37
24.083	0.31	0.53	0.273	IO				5.35
24.167	0.13	0.53	0.271	IO				5.31
24.250	0.02	0.53	0.267	IO				5.24
24.333	0.00	0.53	0.264	IO				5.17
24.417	0.00	0.53	0.260	IO				5.10
24.500	0.00	0.53	0.257	IO				5.03
24.583	0.00	0.53	0.253	IO				4.96
24.667	0.00	0.53	0.249	IO				4.90
24.750	0.00	0.53	0.246	IO				4.83
24.833	0.00	0.53	0.242	IO				4.77
24.917	0.00	0.53	0.238	IO				4.70
25.000	0.00	0.53	0.235	IO				4.64
25.083	0.00	0.53	0.231	IO				4.57
25.167	0.00	0.53	0.227	IO				4.51
25.250	0.00	0.53	0.224	IO				4.44

25.333	0.00	0.53	0.220	IO				4.38
25.417	0.00	0.53	0.216	IO				4.31
25.500	0.00	0.53	0.213	IO				4.25
25.583	0.00	0.53	0.209	IO				4.18
25.667	0.00	0.53	0.206	IO				4.12
25.750	0.00	0.53	0.202	IO				4.05
25.833	0.00	0.53	0.198	IO				3.99
25.917	0.00	0.53	0.195	IO				3.92
26.000	0.00	0.53	0.191	IO				3.86
26.083	0.00	0.53	0.187	IO				3.80
26.167	0.00	0.53	0.184	IO				3.73
26.250	0.00	0.53	0.180	IO				3.67
26.333	0.00	0.53	0.176	IO				3.61
26.417	0.00	0.53	0.173	IO				3.55
26.500	0.00	0.53	0.169	IO				3.48
26.583	0.00	0.53	0.165	IO				3.42
26.667	0.00	0.53	0.162	IO				3.36
26.750	0.00	0.53	0.158	IO				3.29
26.833	0.00	0.53	0.154	IO				3.23
26.917	0.00	0.53	0.151	IO				3.17
27.000	0.00	0.53	0.147	IO				3.11
27.083	0.00	0.53	0.143	IO				3.04
27.167	0.00	0.53	0.140	IO				2.98
27.250	0.00	0.53	0.136	IO				2.91
27.333	0.00	0.53	0.133	IO				2.85
27.417	0.00	0.53	0.129	IO				2.78
27.500	0.00	0.53	0.125	IO				2.72
27.583	0.00	0.53	0.122	IO				2.65
27.667	0.00	0.53	0.118	IO				2.59
27.750	0.00	0.53	0.114	IO				2.52
27.833	0.00	0.53	0.111	IO				2.46
27.917	0.00	0.53	0.107	IO				2.39
28.000	0.00	0.53	0.103	IO				2.33
28.083	0.00	0.53	0.100	IO				2.26
28.167	0.00	0.53	0.096	IO				2.20
28.250	0.00	0.53	0.092	IO				2.13
28.333	0.00	0.53	0.089	IO				2.07
28.417	0.00	0.53	0.085	IO				2.00
28.500	0.00	0.53	0.081	IO				1.93
28.583	0.00	0.53	0.078	IO				1.86
28.667	0.00	0.53	0.074	IO				1.79
28.750	0.00	0.53	0.070	IO				1.71
28.833	0.00	0.53	0.067	IO				1.64
28.917	0.00	0.53	0.063	IO				1.57
29.000	0.00	0.53	0.060	IO				1.50
29.083	0.00	0.53	0.056	IO				1.43
29.167	0.00	0.53	0.052	IO				1.36
29.250	0.00	0.53	0.049	IO				1.29
29.333	0.00	0.53	0.045	IO				1.21
29.417	0.00	0.53	0.041	IO				1.14
29.500	0.00	0.53	0.038	IO				1.07
29.583	0.00	0.53	0.034	IO				1.00
29.667	0.00	0.53	0.030	IO				0.91
29.750	0.00	0.53	0.027	IO				0.82
29.833	0.00	0.53	0.023	IO				0.73
29.917	0.00	0.53	0.019	IO				0.63
30.000	0.00	0.53	0.016	IO				0.54
30.083	0.00	0.46	0.012	IO				0.44
30.167	0.00	0.36	0.009	IO				0.34
30.250	0.00	0.28	0.007	O				0.26
30.333	0.00	0.21	0.006	O				0.20
30.417	0.00	0.16	0.004	O				0.15
30.500	0.00	0.13	0.003	O				0.12

30.583	0.00	0.10	0.003	O	|	|	|	0.09
30.667	0.00	0.07	0.002	O	|	|	|	0.07
30.750	0.00	0.06	0.002	O	|	|	|	0.05
30.833	0.00	0.04	0.001	O	|	|	|	0.04
30.917	0.00	0.03	0.001	O	|	|	|	0.03
31.000	0.00	0.03	0.001	O	|	|	|	0.02
31.083	0.00	0.02	0.001	O	|	|	|	0.02
31.167	0.00	0.02	0.000	O	|	|	|	0.01
31.250	0.00	0.01	0.000	O	|	|	|	0.01
31.333	0.00	0.01	0.000	O	|	|	|	0.01
31.417	0.00	0.01	0.000	O	|	|	|	0.01
31.500	0.00	0.01	0.000	O	|	|	|	0.01
31.583	0.00	0.00	0.000	O	|	|	|	0.00
31.667	0.00	0.00	0.000	O	|	|	|	0.00
31.750	0.00	0.00	0.000	O	|	|	|	0.00
31.833	0.00	0.00	0.000	O	|	|	|	0.00
31.917	0.00	0.00	0.000	O	|	|	|	0.00
32.000	0.00	0.00	0.000	O	|	|	|	0.00
32.083	0.00	0.00	0.000	O	|	|	|	0.00

**********HYDROGRAPH DATA**********

Number of intervals = 385
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.530 (CFS)
Total volume = 1.216 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

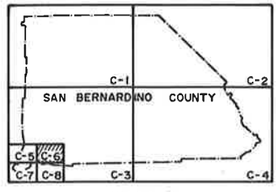
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Appendix D
Soil Group Map and Isohyetal Map

SOURCE: GEOLOGY MAP

Project Site

SOURCE: GEOLOGY MAP
SOURCE: 1971 SCS SURVEY



INDEX MAP

LEGEND

SOIL GROUP BOUNDARY

A SOIL GROUP DESIGNATION

BOUNDARY OF INDICATED SOURCE

SCALE 1:48,000

SCALE REDUCED BY 1/2

SAN BERNARDINO COUNTY
HYDROLOGY MANUAL

HYDROLOGIC SOILS GROUP MAP
FOR
SOUTHWEST-B AREA

FIGURE C-14

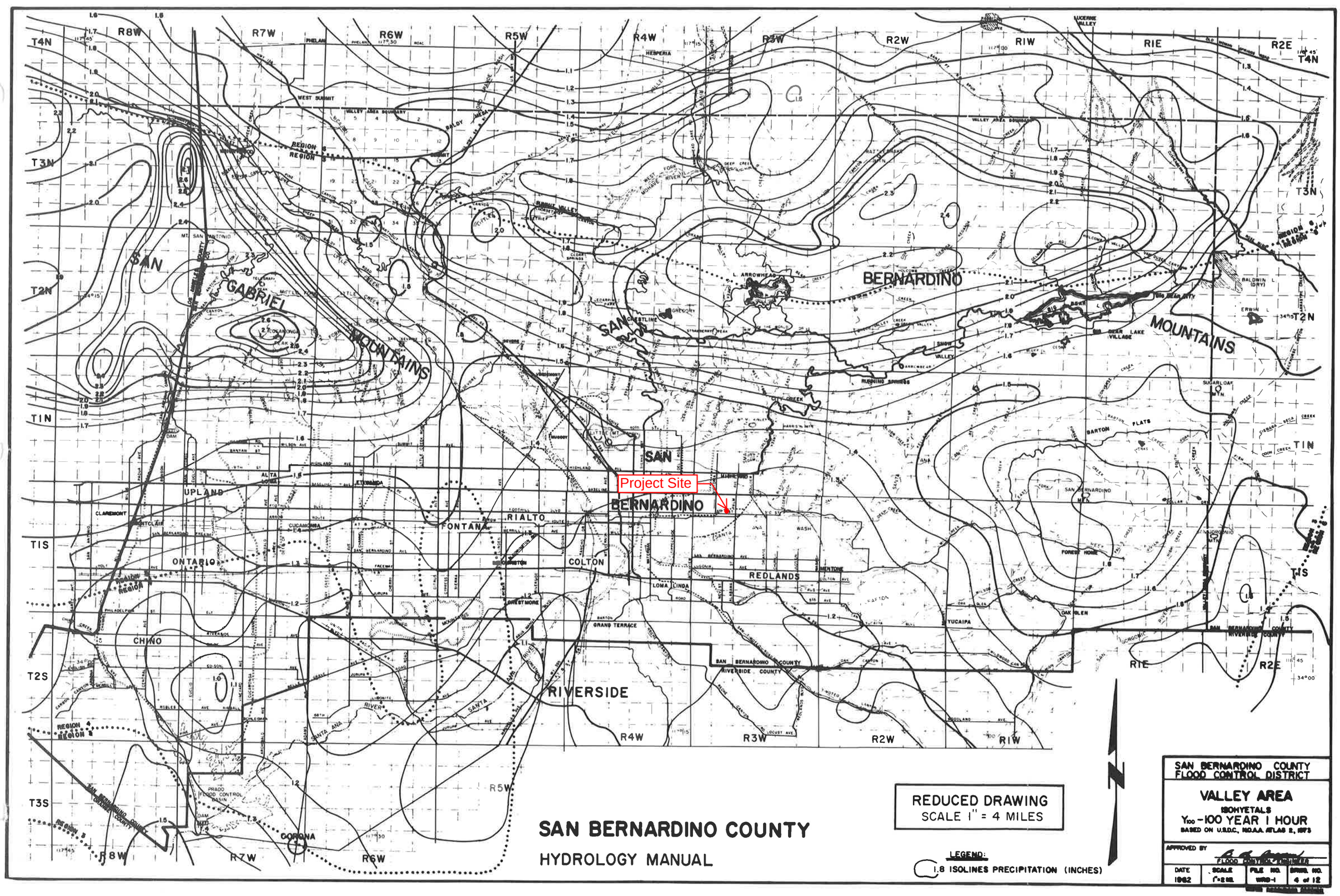

Project Site
SAN BERNARDINO COUNTY
HYDROLOGY MANUAL
REDUCED DRAWING
SCALE 1" = 4 MILES
LEGEND:
1.8 ISOLINES PRECIPITATION (INCHES)
SAN BERNARDINO COUNTY
FLOOD CONTROL DISTRICT
VALLEY AREA
ISOHYETALS
Y100 - 100 YEAR 1 HOUR
BASED ON U.S.D.C., NOAA ATLAS 2, 1973
APPROVED BY
FLOOD CONTROL ENGINEER
DATE 1982
SCALE 1"=2 MI.
FILE NO. VAD-1
SHEET NO. 4 of 12

FIGURE B-4

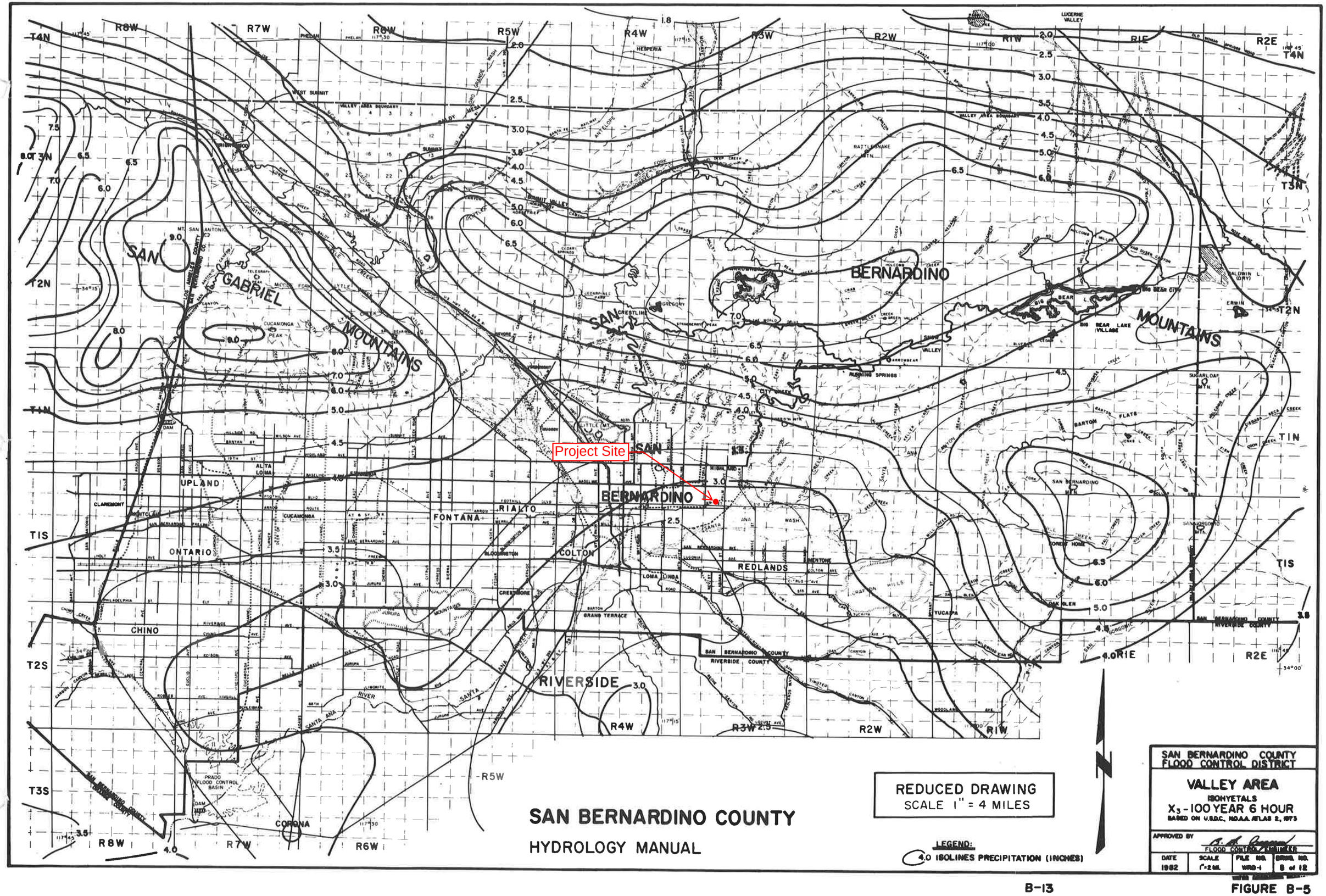

Project Site
SAN BERNARDINO COUNTY
HYDROLOGY MANUAL
REDUCED DRAWING
SCALE 1" = 4 MILES
LEGEND:
4.0 ISOLINES PRECIPITATION (INCHES)
SAN BERNARDINO COUNTY
FLOOD CONTROL DISTRICT
VALLEY AREA
ISOHYETALS
X3 - 100 YEAR 6 HOUR
BASED ON U.S.D.C., NOAA ATLAS 2, 1973
APPROVED BY
FLOOD CONTROL ENGINEER
DATE 1982
SCALE 1"=2 MI.
FILE NO. VAD-1
DRWG. NO. 5 of 12
SAN BERNARDINO MTNS.
SAN GABRIEL MOUNTAINS
SAN BERNARDINO MOUNTAINS
BIG BEAR LAKE
BIG BEAR CITY
LAKE ARROWHEAD
RUNNING SPRINGS
SNOW VALLEY
SAN BERNARDINO
RIVERSIDE
UPLAND
ONTARIO
CHINO
CLAREMONT
FONTANA
RIALTO
COLTON
REDLANDS
LOMA LINDA
YUCAIPA
CORONA
PRADO FLOOD CONTROL BASIN
HESPERIA
VICTORVILLE
LUCERNE VALLEY
BARTON FLATS
SUGARLOAF
ERWIN
BALDWIN (DRY)
OAK GLEN
CRESTLINE
RATTLESNAKE MTN.
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
R8W
R7W
R6W
R5W
R4W
R3W
R2W
R1W
R1E
R2E
T4N
T3N
T2N
T1N
T1S
T2S
T3S

FIGURE B-5

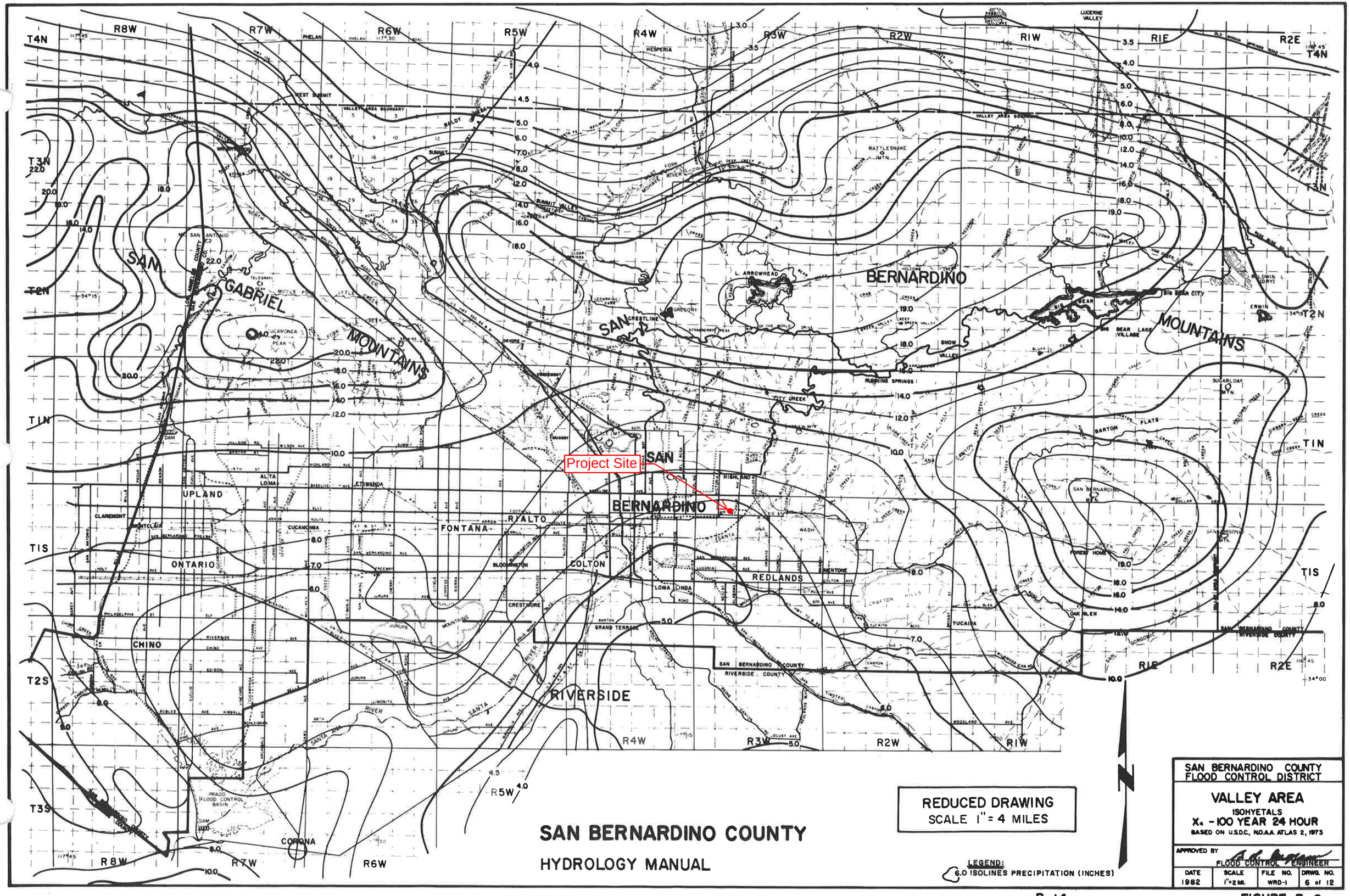

Project Site
SAN BERNARDINO COUNTY
HYDROLOGY MANUAL
REDUCED DRAWING
SCALE 1" = 4 MILES
LEGEND:
6.0 ISOLINES PRECIPITATION (INCHES)
SAN BERNARDINO COUNTY
FLOOD CONTROL DISTRICT
VALLEY AREA
ISOHYETALS
X4 - 100 YEAR 24 HOUR
BASED ON U.S.D.C., N.O.A.A. ATLAS 2, 1973
APPROVED BY
FLOOD CONTROL ENGINEER
DATE 1982
SCALE 1"=2 MI.
FILE NO. WRD-1
DRWG. NO. 6 of 12

FIGURE B-6

Appendix E
Selected References

Appendix I
Noise Attachments

Appendix I-1
Field Noise Data Sheets

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: PAVILNT 3RD & CENTRAL — PROJECT #: 13893
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 1/11/22 — END DATE: 1/12/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP ____ F — HUMIDITY ____ % R.H. — WIND: CALM / LIGHT / MODERATE
WINDSPD ____ MPH — DIR. N NE E SE S SW W NW — VARIABLE / STEADY / GUSTY
SKY: SUNNY / CLEAR / OVRCAST / PRTLY CLDY / FOG / RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO II — TYPE 1 2 — SERIAL # P0218091409
CALIBRATOR: REED R8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST ____ dBA SPL — POST-TEST ____ dBA SPL — WINDSCRN: YES

SETTINGS: A-WTD / SLOW / FAST / FRONTAL / RANDOM / ANSI / OTHER:

REC. #	BEGIN (1/11)	END (1/12)	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
LT-1 1-1452	11:18	11:29							

COMMENTS: READING TAKEN ALONG E. 3RD ST, WEST OF CENTRAL AVE;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: TRAFFIC / AIRCRAFT / RAIL / INDUSTRIAL / OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 40' TO C/L ON E. 3RD ST

TRAFFIC COUNT DURATION: ___ MIN — SPEED ___ MIN

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

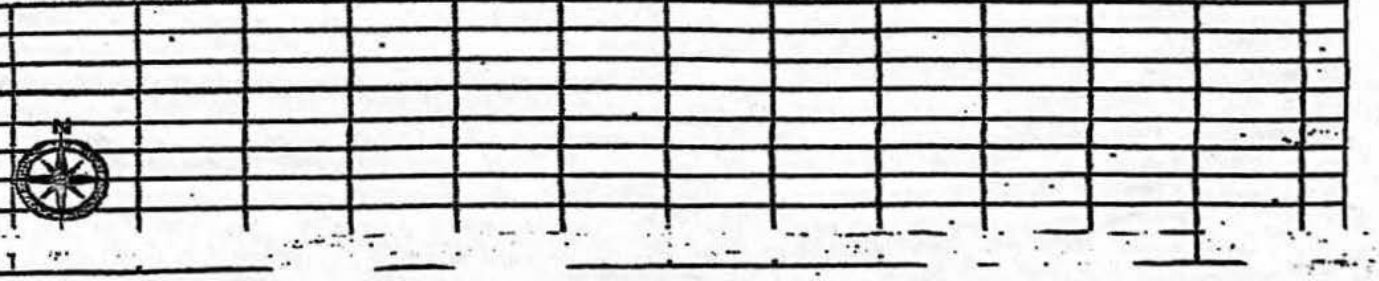
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE: X

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL / DIST. KIDS PLAYING / DIST. CONVRSTNS / YELLING / DIST. TRAFFIC (LIST RDWYS BELOW) / DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: HARD / SOFT / MIXED / FLAT / OTHER:
PHOTOS: 3273; 3274; 3275; 3276; 3277
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: PATRIOT 3RD & CENTRAL — PROJECT #: 13893
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 1/11/22 — END DATE: 1/11/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 62 F — HUMIDITY: 15 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: 1 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: SUNNY (CLEAR) — OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM P-3 — TYPE 1 2 — SERIAL # 130927046
CALIBRATOR: REED R8090 — SERIAL #:
CALIBRATION CHECK: — PRE-TEST ____ dBA SPL — POST-TEST ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST1) 1-16	11:41	11:56							

COMMENTS:
READILY TAKEN NEAR NW CORNER OF 5TH ST & CENTRAL AVE (HEAD START SCHOOL); PRIMARY NOISE SOURCE IS TRAFFIC ON 5TH ST; SECONDARY IS LIGHT TRAFFIC ON CENTRAL AVE; SOME AUDIBLE TRAFFIC NOISE FROM 3RD ST TO THE SOUTH;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 75' TO C/L ON 5TH ST

TRAFFIC COUNT DURATION: 15 MIN — SPEED ____ MIN — SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	12			
MED TRKS	3			
HVY TRKS	6			
BUSES	1			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3283; 3284; 3285; 3286; 3287
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: PATRIOT 3RD & CENTRAL — PROJECT #: 13893
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 1/11/22 — END DATE: 1/11/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 68 F — HUMIDITY: 15 % R.H. — WIND: (CALM) LIGHT MODERATE VARIABLE STEADY GUSTY
WINDSPD: 1 MPH — DIR. N NE S SE S SW W NW
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM P-3 — TYPE 1 2 — SERIAL# 130927046
CALIBRATOR: REED R8090 — SERIAL#:
CALIBRATION CHECK: PRE-TEST ____ dBA SPL — POST-TEST ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST2) 17-32	12:04	12:19							

COMMENTS: READING TAKEN ALONG 5TH ST, BEHIND [redacted] MULTI-FAMILY RESIDENTIAL BUILDINGS AT 26837 MOSSWAY ST; PRIMARY NOISE SOURCE IS TRAFFIC ON 5TH ST; SECONDARY IS LIGHT TRAFFIC ON CENTRAL AVE TO THE EAST;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY (C/L) OR EOP: APX 55' TO C/L ON 5TH ST.
TRAFFIC COUNT DURATION: 15 MIN — SPEED ____ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓	COUNT 2 (OR RDWY 2) NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	133								
MED TRKS	3								
HVY TRKS	8								
BUSES	0								
MOTRCLS	0								

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3289; 3290; 3291; 3292; 3293; 3294; 3295;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: PATRIOT 3RD & CENTRAL — PROJECT #: 13893
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 1/11/22 — END DATE: 1/11/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 70 F — HUMIDITY: 15 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: 2 MPH — DIR. N NE E SE S SW W NW — VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM P-3 — TYPE 1 2 — SERIAL #: 130927046
CALIBRATOR: REED R8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST: ____ dBA SPL — POST-TEST: ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST3) 33-48	12:32	12:47							

COMMENTS: READING TAKEN IN FRONT OF 27014 5TH ST (RESIDENTIAL); PRIMARY NOISE SOURCE IS TRAFFIC ON 5TH ST;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 45' TO C/L ON 5TH ST

TRAFFIC COUNT DURATION: 15 MIN

COUNT 1 (OR RDWY 1)

DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	141			
MED TRKS	7			
HVY TRKS	16			
BUSES	1			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE: ☐

COUNT 2 (OR RDWY 2) — ____ MIN

NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVERSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3297; 3298; 3299; 3300
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: PATRIOT 3RD & CENTRAL — PROJECT #: 13893
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 1/11/22 — END DATE: 1/11/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 70 F — HUMIDITY: 15 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: 1 MPH — DIR. N NE E SE S SW W NW — VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM P-3 — TYPE 1 2 — SERIAL #: 1309270 46
CALIBRATOR: REED R8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST: ____ dBA SPL — POST-TEST: ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST4) 49-64	13:01	13:16							

COMMENTS: READING TAKEN IN FRONT OF ~~[illegible]~~ 26562 3RD ST (RESIDENTIAL); PRIMARY NOISE SOURCE IS TRAFFIC ON 3RD ST; SOME ~~[illegible]~~ OCCASIONAL NOISE OF CONVERSATION - VEHICLE MOVEMENT IN LOT ACROSS THE STREET; ALSO OCCASIONAL BACK UP ALARM;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 80 / 70 C/L ON 3RD ST

TRAFFIC COUNT DURATION: 15 MIN — SPEED: ____ MIN

COUNT 1 (OR RDWY 1)	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
	AUTOS	135			
	MED TRKS	1			
	HVY TRKS	9			
	BUSES	0			
	MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE: ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING (DIST. CONVRSTNS / YELLING) DIST. TRAFFIC (LIST RDWYS BELOW) DIST'D GARDENERS/LANDSCAPING NOISE
OTHER: SOME PAINT CONVERSATION IN LOT ACROSS THE STREET;

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3302; 3303; 3304; 3305
OTHER COMMENTS / SKETCH



ST1

Rec 1 to 16	Slow Response		dBA weighting		2.0 dB resc
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin
1/11/2022 11:41	1.0 min	59.2	77	68.4	48.4
1/11/2022 11:42	1.0 min	58.3	76.1	68.2	43.5
1/11/2022 11:43	1.0 min	61.2	79	68.7	44.6
1/11/2022 11:44	1.0 min	57.6	75.4	66.3	48.8
1/11/2022 11:45	1.0 min	60.8	78.6	68.1	45.6
1/11/2022 11:46	1.0 min	68.9	86.7	83.3	44.7
1/11/2022 11:47	1.0 min	54.4	72.2	63.2	41.6
1/11/2022 11:48	1.0 min	65	82.8	77.3	40.7
1/11/2022 11:49	1.0 min	54.1	71.9	64.2	42.9
1/11/2022 11:50	1.0 min	61.4	79.2	68.5	43.3
1/11/2022 11:51	1.0 min	71.8	89.6	84.5	42.3
1/11/2022 11:52	1.0 min	58.3	76.1	69.3	38.6
1/11/2022 11:53	1.0 min	55.9	73.7	63.3	44.3
1/11/2022 11:54	1.0 min	60.7	78.5	70.3	44
1/11/2022 11:55	1.0 min	61.5	79.3	69.1	43.5
1/11/2022 11:56	13 sec	65.7	76.8	70.9	57.9

Leq	63.8
Lmax	84.5
Lmin	38.6

ST2

Slow Response		dBA weighting		2.0 dB resc
LeqPeriod	Leq	SEL	Lmax	Lmin
1.0 min	61.4	79.2	70.3	44.5
1.0 min	69.4	87.2	79.4	46
1.0 min	62.1	79.9	70.2	44.5
1.0 min	63.6	81.4	76.3	45
1.0 min	64.9	82.7	72.4	44.7
1.0 min	51.6	69.4	56.5	42.5
1.0 min	63.2	81	75	42.6
1.0 min	65.9	83.7	77	45.1
1.0 min	58	75.8	67.7	41.6
1.0 min	58.4	76.2	68.8	43.6
1.0 min	63.3	81.1	70.5	42.1
1.0 min	61.3	79.1	72.5	42.9
1.0 min	64.8	82.6	73.3	42.9
1.0 min	60.7	78.5	72.6	43.6
1.0 min	62.8	80.6	72.3	41.7
10 sec	68.5	78.5	73.7	60.2

63.6
79.4
41.6

ST3

Rec 33 to 48	Slow Response		dBA weighting		2.0 dB resc
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin
1/11/2022 12:32	1.0 min	63	80.8	73.5	44.6
1/11/2022 12:33	1.0 min	60.6	78.4	71.6	42.6
1/11/2022 12:34	1.0 min	66.4	84.2	75.7	41.9
1/11/2022 12:35	1.0 min	66.3	84.1	76.2	42.8
1/11/2022 12:36	1.0 min	58.8	76.6	66.4	44
1/11/2022 12:37	1.0 min	65.3	83.1	74.1	49
1/11/2022 12:38	1.0 min	65.7	83.5	75.4	48.9
1/11/2022 12:39	1.0 min	64.8	82.6	74.8	46.8
1/11/2022 12:40	1.0 min	57.9	75.7	68.2	42.2
1/11/2022 12:41	1.0 min	65.9	83.7	76.6	44.7
1/11/2022 12:42	1.0 min	65.5	83.3	73.3	42.5
1/11/2022 12:43	1.0 min	62.3	80.1	70.1	49.9
1/11/2022 12:44	1.0 min	65.2	83	72.5	44.7
1/11/2022 12:45	1.0 min	68.2	86	76.3	43.5
1/11/2022 12:46	1.0 min	68	85.8	75.2	47.9
1/11/2022 12:47	28 sec	68.4	82.9	76.1	53.8

Leq	65.1
Lmax	76.6
Lmin	41.9

ST4

Rec 49 to 64	Slow Response		dBA weighting		2.0 dB resc
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin
1/11/2022 13:01	1.0 min	63.2	81	71.5	50.6
1/11/2022 13:02	1.0 min	63.8	81.6	71.4	50.5
1/11/2022 13:03	1.0 min	62.3	80.1	72.4	50
1/11/2022 13:04	1.0 min	62.1	79.9	67.2	52.7
1/11/2022 13:05	1.0 min	65	82.8	70.8	50
1/11/2022 13:06	1.0 min	64.2	82	72.1	55
1/11/2022 13:07	1.0 min	63.8	81.6	71	49.5
1/11/2022 13:08	1.0 min	65.4	83.2	80	44.5
1/11/2022 13:09	1.0 min	69	86.8	80.7	51
1/11/2022 13:10	1.0 min	63.3	81.1	69.4	50.8
1/11/2022 13:11	1.0 min	63.3	81.1	69.5	48.7
1/11/2022 13:12	1.0 min	63.4	81.2	73	47.6
1/11/2022 13:13	1.0 min	65.4	83.2	73.3	48.7
1/11/2022 13:14	1.0 min	61.1	78.9	70.9	49.5
1/11/2022 13:15	1.0 min	55.7	73.5	64.5	44.5
1/11/2022 13:16	8 sec	68.2	77.2	72.4	60.5

Leq	64.1
Lmax	80.7
Lmin	44.5

Appendix I-2

Construction Noise Modeling Input and Output

East_Rcptr_Closest

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 80

allowable hours over which Leq is to be averaged = 8

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Dozer	1	40	82		85	0.1		75.8	8	480	72
	Concrete saw	1	20	90		100	0.1		81.7	8	480	75
	Tractor	1	40	84		150	0.1		71.0	8	480	67
	Front end loader	1	40	79		200	0.1		63.0	8	480	59
	Backhoe	1	40	78		250	0.1		59.7	8	480	56
									Total for Demolition Phase:			**77.1**
Site Preparation	Grader	1	40	85		85	0.1		78.8	8	480	75
	Dozer	1	40	82		100	0.1		73.7	8	480	70
									Total for Site Preparation Phase:			**76.0**
Grading	Grader	1	40	85		85	0.1		78.8	8	480	75
	Dozer	1	40	82		100	0.1		73.7	8	480	70
	Front end loader	3	40	79		150	0.1		66.0	8	480	67
	Backhoe	1	40	78		200	0.1		62.0	8	480	58
									Total for Grading Phase:			**76.5**
Building Construction	Front end loader	1	40	79		85	0.1		72.8	8	480	69
	Man lift	1	20	75		100	0.1		66.7	8	480	60
	Crane	1	16	81		150	0.1		68.0	8	480	60
	Generator	1	50	72		200	0.1		56.0	8	480	53
	Welder / torch	1	40	73		250	0.1		54.7	8	480	51
	Welder / torch	1	40	73		300	0.1		52.9	8	480	49
	Welder / torch	1	40	73		350	0.1		51.4	8	480	47
									Total for Building Construction Phase:			**70.0**
Paving	Concrete mixer truck	1	40	79		85	0.1		72.8	8	480	69
	Paver	1	50	77		100	0.1		68.7	8	480	66
	Concrete pump truck	1	20	81		150	0.1		68.0	8	480	61
	Roller	1	20	80		200	0.1		64.0	8	480	57
	Backhoe	1	40	78		250	0.1		59.7	8	480	56
									Total for Paving Phase:			**71.3**
Architectural Coating	Compressor (air)	1	40	78		85	0.1		71.8	8	480	68
									Total for Architectural Coating Phase:			**67.8**

East_Rcptr_AC

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 80

allowable hours over which Leq is to be averaged = 1

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Demolition	Dozer	1	40	82		250	0.1		63.7	1	60	60
	Concrete saw	1	20	90		250	0.1		71.7	1	60	65
	Tractor	1	40	84		250	0.1		65.7	1	60	62
	Front end loader	1	40	79		250	0.1		60.7	1	60	57
	Backhoe	1	40	78		250	0.1		59.7	1	60	56
									Total for Demolition Phase:			**68.0**
Site Preparation	Grader	1	40	85		250	0.1		66.7	1	60	63
	Dozer	1	40	82		250	0.1		63.7	1	60	60
									Total for Site Preparation Phase:			**64.5**
Grading	Grader	1	40	85		250	0.1		66.7	1	60	63
	Dozer	1	40	82		250	0.1		63.7	1	60	60
	Front end loader	3	40	79		250	0.1		60.7	1	60	62
	Backhoe	1	40	78		250	0.1		59.7	1	60	56
									Total for Grading Phase:			**66.7**
Building Construction	Front end loader	1	40	79		250	0.1		60.7	1	60	57
	Man lift	1	20	75		250	0.1		56.7	1	60	50
	Crane	1	16	81		250	0.1		62.7	1	60	55
	Generator	1	50	72		250	0.1		53.7	1	60	51
	Welder / torch	1	40	73		250	0.1		54.7	1	60	51
	Welder / torch	1	40	73		250	0.1		54.7	1	60	51
	Welder / torch	1	40	73		250	0.1		54.7	1	60	51
									Total for Building Construction Phase:			**61.3**
Paving	Concrete mixer truck	1	40	79		250	0.1		60.7	1	60	57
	Paver	1	50	77		250	0.1		58.7	1	60	56
	Concrete pump truck	1	20	81		250	0.1		62.7	1	60	56
	Roller	1	20	80		250	0.1		61.7	1	60	55
	Backhoe	1	40	78		250	0.1		59.7	1	60	56
									Total for Paving Phase:			**62.8**
Architectural Coating	Compressor (air)	1	40	78		250	0.1		59.7	1	60	56
									Total for Architectural Coating Phase:			**55.8**

SE_Rcptr_AC

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 80

allowable hours over which Leq is to be averaged = 1

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Demolition	Dozer	1	40	82		310	0.1		61.6	1	60	58
	Concrete saw	1	20	90		310	0.1		69.6	1	60	63
	Tractor	1	40	84		310	0.1		63.6	1	60	60
	Front end loader	1	40	79		310	0.1		58.6	1	60	55
	Backhoe	1	40	78		310	0.1		57.6	1	60	54
									Total for Demolition Phase:			**65.9**
Site Preparation	Grader	1	40	85		310	0.1		64.6	1	60	61
	Dozer	1	40	82		310	0.1		61.6	1	60	58
									Total for Site Preparation Phase:			**62.4**
Grading	Grader	1	40	85		310	0.1		64.6	1	60	61
	Dozer	1	40	82		310	0.1		61.6	1	60	58
	Front end loader	1	40	79		310	0.1		58.6	1	60	55
	Backhoe	1	40	78		310	0.1		57.6	1	60	54
									Total for Grading Phase:			**63.6**
Building Construction	Front end loader	1	40	79		310	0.1		58.6	1	60	55
	Man lift	1	20	75		310	0.1		54.6	1	60	48
	Crane	1	16	81		310	0.1		60.6	1	60	53
	Generator	1	50	72		310	0.1		51.6	1	60	49
	Welder / torch	1	40	73		310	0.1		52.6	1	60	49
	Welder / torch	1	40	73		310	0.1		52.6	1	60	49
	Welder / torch	1	40	73		310	0.1		52.6	1	60	49
									Total for Building Construction Phase:			**59.2**
Paving	Concrete mixer truck	1	40	79		310	0.1		58.6	1	60	55
	Paver	1	50	77		310	0.1		56.6	1	60	54
	Concrete pump truck	1	20	81		310	0.1		60.6	1	60	54
	Roller	1	20	80		310	0.1		59.6	1	60	53
	Backhoe	1	40	78		310	0.1		57.6	1	60	54
									Total for Paving Phase:			**60.7**
Architectural Coating	Compressor (air)	1	40	78		310	0.1		57.6	1	60	54
									Total for Architectural Coating Phase:			**53.6**

SE_Rcptr_CD

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 80

allowable hours over which Leq is to be averaged = 8

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Dozer	1	40	82		85	0.1		75.8	8	480	72
	Concrete saw	1	20	90		100	0.1		81.7	8	480	75
	Tractor	1	40	84		150	0.1		71.0	8	480	67
	Front end loader	1	40	79		200	0.1		63.0	8	480	59
	Backhoe	1	40	78		250	0.1		59.7	8	480	56
									Total for Demolition Phase:			**77.1**
Site Preparation	Grader	1	40	85		85	0.1		78.8	8	480	75
	Dozer	1	40	82		100	0.1		73.7	8	480	70
									Total for Site Preparation Phase:			**76.0**
Grading	Grader	1	40	85		85	0.1		78.8	8	480	75
	Dozer	1	40	82		100	0.1		73.7	8	480	70
	Front end loader	3	40	79		150	0.1		66.0	8	480	67
	Backhoe	1	40	78		200	0.1		62.0	8	480	58
									Total for Grading Phase:			**76.5**
Building Construction	Front end loader	1	40	79		85	0.1		72.8	8	480	69
	Man lift	1	20	75		100	0.1		66.7	8	480	60
	Crane	1	16	81		150	0.1		68.0	8	480	60
	Generator	1	50	72		200	0.1		56.0	8	480	53
	Welder / torch	1	40	73		250	0.1		54.7	8	480	51
	Welder / torch	1	40	73		300	0.1		52.9	8	480	49
	Welder / torch	1	40	73		350	0.1		51.4	8	480	47
									Total for Building Construction Phase:			**70.0**
Paving	Concrete mixer truck	1	40	79		85	0.1		72.8	8	480	69
	Paver	1	50	77		100	0.1		68.7	8	480	66
	Concrete pump truck	1	20	81		150	0.1		68.0	8	480	61
	Roller	1	20	80		200	0.1		64.0	8	480	57
	Backhoe	1	40	78		250	0.1		59.7	8	480	56
									Total for Paving Phase:			**71.3**
Architectural Coating	Compressor (air)	1	40	78		85	0.1		71.8	8	480	68
									Total for Architectural Coating Phase:			**67.8**

N_Rcptr_CD

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 80

allowable hours over which Leq is to be averaged = 8

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Dozer	1	40	82		120	0.1		71.5	8	480	68
	Concrete saw	1	20	90		150	0.1		77.0	8	480	70
	Tractor	1	40	84		200	0.1		68.0	8	480	64
	Front end loader	1	40	79		250	0.1		60.7	8	480	57
	Backhoe	1	40	78		300	0.1		57.9	8	480	54
									Total for Demolition Phase:			**72.8**
Site Preparation	Grader	1	40	85		120	0.1		74.5	8	480	71
	Dozer	1	40	82		150	0.1		69.0	8	480	65
									Total for Site Preparation Phase:			**71.6**
Grading	Grader	1	40	85		120	0.1		74.5	8	480	71
	Dozer	1	40	82		150	0.1		69.0	8	480	65
	Front end loader	3	40	79		200	0.1		63.0	8	480	64
	Backhoe	1	40	78		250	0.1		59.7	8	480	56
									Total for Grading Phase:			**72.4**
Building Construction	Front end loader	1	40	79		120	0.1		68.5	8	480	65
	Man lift	1	20	75		150	0.1		62.0	8	480	55
	Crane	1	16	81		200	0.1		65.0	8	480	57
	Generator	1	50	72		250	0.1		53.7	8	480	51
	Welder / torch	1	40	73		300	0.1		52.9	8	480	49
	Welder / torch	1	40	73		350	0.1		51.4	8	480	47
	Welder / torch	1	40	73		250	0.1		54.7	8	480	51
									Total for Building Construction Phase:			**66.1**
Paving	Concrete mixer truck	1	40	79		120	0.1		68.5	8	480	65
	Paver	1	50	77		150	0.1		64.0	8	480	61
	Concrete pump truck	1	20	81		200	0.1		65.0	8	480	58
	Roller	1	20	80		250	0.1		61.7	8	480	55
	Backhoe	1	40	78		300	0.1		57.9	8	480	54
									Total for Paving Phase:			**67.2**
Architectural Coating	Compressor (air)	1	40	78		120	0.1		67.5	8	480	64
									Total for Architectural Coating Phase:			**63.5**

N_Rcptr_AC

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 80

allowable hours over which Leq is to be averaged = 1

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Demolition	Dozer	1	40	82		225	0.1		64.8	1	60	61
	Concrete saw	1	20	90		225	0.1		72.8	1	60	66
	Tractor	1	40	84		225	0.1		66.8	1	60	63
	Front end loader	1	40	79		225	0.1		61.8	1	60	58
	Backhoe	1	40	78		225	0.1		60.8	1	60	57
									Total for Demolition Phase:			**69.0**
Site Preparation	Grader	1	40	85		225	0.1		67.8	1	60	64
	Dozer	1	40	82		225	0.1		64.8	1	60	61
									Total for Site Preparation Phase:			**65.6**
Grading	Grader	1	40	85		225	0.1		67.8	1	60	64
	Dozer	1	40	82		225	0.1		64.8	1	60	61
	Front end loader	3	40	79		225	0.1		61.8	1	60	63
	Backhoe	1	40	78		225	0.1		60.8	1	60	57
									Total for Grading Phase:			**67.7**
Building Construction	Front end loader	1	40	79		225	0.1		61.8	1	60	58
	Man lift	1	20	75		225	0.1		57.8	1	60	51
	Crane	1	16	81		225	0.1		63.8	1	60	56
	Generator	1	50	72		225	0.1		54.8	1	60	52
	Welder / torch	1	40	73		225	0.1		55.8	1	60	52
	Welder / torch	1	40	73		225	0.1		55.8	1	60	52
	Welder / torch	1	40	73		225	0.1		55.8	1	60	52
									Total for Building Construction Phase:			**62.3**
Paving	Concrete mixer truck	1	40	79		225	0.1		61.8	1	60	58
	Paver	1	50	77		225	0.1		59.8	1	60	57
	Concrete pump truck	1	20	81		225	0.1		63.8	1	60	57
	Roller	1	20	80		225	0.1		62.8	1	60	56
	Backhoe	1	40	78		225	0.1		60.8	1	60	57
									Total for Paving Phase:			**63.8**
Architectural Coating	Compressor (air)	1	40	78		225	0.1		60.8	1	60	57
									Total for Architectural Coating Phase:			**56.8**

Appendix I-3

Equipment Specifications and Noise Calculations

TECHNICAL GUIDE

R-410A
ZE/ZF/ZR/XN/XP SERIES
3 - 6 TON
60 Hertz



Description

YORK® ZE/ZF/ZR/XN/XP Series units are convertible single package high efficiency rooftops with a common roof curb for the 3, 4, 5 and 6 Ton sizes (ZE, ZR, XN, XP not available in 6 Ton). Although the units are primarily designed for curb mounting on a roof, they can also be slab-mounted at ground level or set on steel beams above a finished roof.

All ZE/ZF/ZR/XN/XP Series units are self-contained and assembled on rigid full perimeter base rails allowing for overhead rigging. Every unit is completely charged, wired, piped and tested at the factory to provide a quick and easy field installation.

All models (including those with an economizer) are convertible between bottom and horizontal duct connections.

ZE/ZF/ZR Series units are available in the following configurations: cooling only, cooling with electric heat, and cooling with one or two stage gas heat. Electric heaters are available as factory-installed option or field installed accessory.

XN/XP Series units are available in the following configurations: cooling and heating only and cooling and heating with electric heat.

Tested in accordance with:

DESIGN CERTIFIED

C SA US

CERTIFIED

AHRI CERTIFIED www.ahridirectory.org Unitary Small AC AHRI Standard 210/240

AHRI CERTIFIED www.ahridirectory.org Unitary Small HP AHRI Standard 210/240

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Sound Performance

ZF/ZR/XP Indoor Sound Power Levels

Size (Tons)	CFM	ESP (IWG)	Blower		Sound Power, dB (10^{-12}) Watts							
					Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)						
			RPM	BHP		63	125	250	500	1000	2000	4000	8000
036 (3.0)	1200	0.2	630	0.41	63	82	77	59	50	43	42	40	45
048 (4.0)	1600	0.2	791	0.54	72	95	84	58	54	46	44	45	44
060 (5.0)	2000	0.2	840	0.67	62	84	71	58	53	50	49	49	49
072 (6.0)	2200	0.3	920	1.45	76	61	71	68	67	72	66	61	54

1. These values have been accessed using a model of sound propagation from a point source into the hemispheric/free field. The dBA values provided are to be used for reference only. Calculation of dBA values cover matters of system design and the fan manufacture has no way of knowing the details of each system. This constitutes an exception to any specification or guarantee requiring a dBA value of sound data in any other form than sound power level ratings.

ZE/ZF/ZR Outdoor Sound Power Levels

Size (Tons)	Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
036 (3.0)	81	87.5	86.0	81.0	77.0	75.0	69.5	65.5	70.5
048 (4.0)	80	84.5	81.0	80.0	78.0	75.0	70.0	67.0	70.5
060 (5.0)	82	86.5	87.5	81.5	77.5	75.0	71.5	68.0	70.5
072 (6.0)	83	-	84.0	85.0	79.0	80.0	72.0	67.5	62.5

1. Rated in accordance with AHRI 270 standard.

XN/XP Outdoor Sound Power Levels

Size (Tons)	Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
036 (3.0)	76	83.5	84.5	76.5	72.0	68.0	66.0	60.0	56.0
048 (4.0)	80	85.0	83.0	81.0	77.5	75.5	71.5	67.5	61.5
060 (5.0)	80	86.0	84.0	81.0	77.0	75.5	71.0	66.5	60.5

1. Rated in accordance with AHRI 270 standard.

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg NW 1	1273.5	2163.5	43	3	80	1	48	Bldg NW 1	York ZF-048
Bldg NW 2	1293.3	2169.2	43	3	80	1	48	Bldg NW 2	York ZF-049

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
N1	1278.8	2230.0	0.0	65	0	43
W1	1125.3	2163.7	0.0	65		
S1	1289.1	1962.4	0.0	65		
E1	1609.1	2190.1	0.0	65		
Headstart to N	1736.9	2182.8	0.0	65		
Residence to N	1265.8	2340.4	0.0	55		
Residence to SE	1682.0	1886.4	0.0	65		

Output: Location: N1 1278.8 2230.0 0 Applicable Standard 65

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg NW 1	1273.5	2163.5	43	1278.8	2230	York ZF-048	48	5	46.0	67	15	52	43	2.8	2.29	17	46	29
Bldg NW 2	1293.3	2169.2	43	1278.8	2230	York ZF-049	48	5	46.0	63	15	48	43	2.8	2.56	17	46	29
																TOTAL Leq:	49	32
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg NW 1	1273.5	2163.5	43	3	80	1	48	Bldg NW 1	York ZF-048
Bldg NW 2	1293.3	2169.2	43	3	80	1	48	Bldg NW 2	York ZF-049

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
					0	43
N1	1278.8	2230.0	0.0	65		
W1	1125.3	2163.7	0.0	65		
S1	1289.1	1962.4	0.0	65		
E1	1609.1	2190.1	0.0	65		
Headstart to E	1736.9	2182.8	0.0	65		
Residence to N	1265.8	2340.4	0.0	55		
Residence to SE	1682.0	1886.4	0.0	65		

Output:

Location: W1 1125.3 2163.7 0.0 Applicable Standard 65

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg NW 1	1273.5	2163.5	43	1125.3	2163.7	York ZF-048	48	5	46.0	148	15	133	43	2.8	0.48	11	39	28
Bldg NW 2	1293.3	2169.2	43	1125.3	2163.7	York ZF-049	48	5	46.0	168	34	134	43	2.8	1.02	14	38	24
																TOTAL Leq:	41	29
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg NW 1	1273.5	2163.5	43	3	80	1	48	Bldg NW 1	York ZF-048
Bldg NW 2	1293.3	2169.2	43	3	80	1	48	Bldg NW 2	York ZF-049

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
					0	43
N1	1278.8	2230.0	0.0	65		
W1	1125.3	2163.7	0.0	65		
S1	1289.1	1962.4	0.0	65		
E1	1609.1	2190.1	0.0	65		
Headstart to E	1736.9	2182.8	0.0	65		
Residence to N	1265.8	2340.4	0.0	55		
Residence to SE	1682.0	1886.4	0.0	65		

Output:

Location: E1 1609.1 2190.1 0.0 Applicable Standard 65

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg NW 1	1273.5	2163.5	43	1609.1	2190.1	York ZF-048	48	5	46.0	337	250	87	43	2.8	5.93	21	32	12
Bldg NW 2	1293.3	2169.2	43	1609.1	2190.1	York ZF-049	48	5	46.0	316	230	86	43	2.8	5.80	21	32	12
																TOTAL Leq:	35	15
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg NW 1	1273.5	2163.5	43	3	80	1	48	Bldg NW 1	York ZF-048
Bldg NW 2	1293.3	2169.2	43	3	80	1	48	Bldg NW 2	York ZF-049

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
					0	43
N1	1278.8	2230.0	0.0	65		
W1	1125.3	2163.7	0.0	65		
S1	1289.1	1962.4	0.0	65		
E1	1609.1	2190.1	0.0	65		
Headstart to E	1736.9	2182.8	0.0	65		
Residence to N	1265.8	2340.4	0.0	55		
Residence to SE	1682.0	1886.4	0.0	65		

Output:

Location: S1 1289.1 1962.4 0.0 Applicable Standard 65

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg NW 1	1273.5	2163.5	43	1289.1	1962.4	York ZF-048	48	5	46.0	202	175	27	43	2.8	16.01	25	36	16
Bldg NW 2	1293.3	2169.2	43	1289.1	1962.4	York ZF-049	48	5	46.0	207	182	25	43	2.8	16.88	25	36	16
																TOTAL Leq:	39	19
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg NW 1	1273.5	2163.5	43	3	80	1	48	Bldg NW 1	York ZF-048
Bldg NW 2	1293.3	2169.2	43	3	80	1	48	Bldg NW 2	York ZF-049

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
N1	1278.8	2230.0	0.0	65	0	43
W1	1125.3	2163.7	0.0	65		
S1	1289.1	1962.4	0.0	65		
E1	1609.1	2190.1	0.0	65		
Headstart to E	1736.9	2182.8	0.0	65		
Residence to N	1265.8	2340.4	0.0	55		
Residence to SE	1682.0	1886.4	0.0	65		

Output:

Location: Headstart to E 1736.9 2182.8 0.0 Applicable Standard 65

Equip Site	Source Coordinates X	Y	Z	Receiver Coordinates X	Y	Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Bldg NW 1	1273.5	2163.5	43	1736.9	2182.8	York ZF-048	48	5	46.0	464	250	214	43	2.8	1.83	16	29	13
Bldg NW 2	1293.3	2169.2	43	1736.9	2182.8	York ZF-049	48	5	46.0	444	230	214	43	2.8	1.76	16	29	14
																TOTAL Leq:	32	16
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number		Frequency (in Hz)	500
Bldg NW 1	1273.5	2163.5	43	3	80	1	48	Bldg NW 1	York ZF-048		
Bldg NW 2	1293.3	2169.2	43	3	80	1	48	Bldg NW 2	York ZF-049		

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
					0	43
N1	1278.8	2230.0	0.0	65		
W1	1125.3	2163.7	0.0	65		
S1	1289.1	1962.4	0.0	65		
E1	1609.1	2190.1	0.0	65		
Headstart to E	1736.9	2182.8	0.0	65		
Residence to N	1265.8	2340.4	0.0	55		
Residence to SE	1682.0	1886.4	0.0	65		

Output:

Location:				Applicable Standard
Residence to N	1265.8	2340.4	0.0	55

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg NW 1	1273.5	2163.5	43	1265.8	2340.4	York ZF-048	48	5	46.0	177	15	162	43	2.8	0.33	10	37	27
Bldg NW 2	1293.3	2169.2	43	1265.8	2340.4	York ZF-049	48	5	46.0	173	15	158	43	2.8	0.35	10	38	28
																TOTAL Leq:	40	31
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg NW 1	1273.5	2163.5	43	3	80	1	48	Bldg NW 1	York ZF-048
Bldg NW 2	1293.3	2169.2	43	3	80	1	48	Bldg NW 2	York ZF-049

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
N1	1278.8	2230.0	0.0	65	0	43
W1	1125.3	2163.7	0.0	65		
S1	1289.1	1962.4	0.0	65		
E1	1609.1	2190.1	0.0	65		
Headstart to E	1736.9	2182.8	0.0	65		
Residence to N	1265.8	2340.4	0.0	55		
Residence to SE	1682.0	1886.4	0.0	65		

Output:

Location: Residence to SE 1682.0 1886.4 0.0 Applicable Standard 65

Equip Site	Source Coordinates X	Y	Z	Receiver Coordinates X	Y	Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Bldg NW 1	1273.5	2163.5	43	1682	1886.4	York ZF-048	48	5	46.0	494	175	319	43	2.8	0.81	13	28	16
Bldg NW 2	1293.3	2169.2	43	1682	1886.4	York ZF-049	48	5	46.0	481	182	299	43	2.8	0.92	13	29	15
																TOTAL Leq:	32	19
																	Without Barrier	With Barrier/ Parapet

Appendix J
Transportation Technical Memorandum

DUDEK
MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 800.450.1818 F 760.632.0164

TRANSPORTATION TECHNICAL MEMORANDUM

To:	City of Highland
From:	Sabita Tewani, AICP, PTP, Transportation Planner Jeanney Keo, Transportation Planner
Subject:	Trip Generation and Vehicle Miles Traveled Screening Analysis for the 5th and Central Warehouse, City of Highland
Date:	May 8, 2023
cc:	Hayley Ward, Dudek
Attachments:	Figures 1 and 2 A Traffic Scoping Form

The following technical memorandum provides a trip generation and vehicle miles traveled (VMT) screening analysis of the proposed 5th Street and Central Avenue Warehouse (project), located in the City of Highland (City) in western San Bernardino County (County). This analysis has been prepared consistent with the trip generation methodology from the Institute of Transportation Engineers (ITE 2021) and VMT estimation methodology per the San Bernadino County Transportation Authority (SBCTA) Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (SBCTA Guidelines). The project's level of service (LOS) screening has also been conducted per City of Highland's Public Works Policies, Procedures and Standards Manual for Level of Service.

Per Senate Bill 743, the Governor's Office of Planning and Research was directed to amend the California Environmental Quality Act (CEQA) Guidelines to provide an alternative to LOS for evaluating transportation impacts. CEQA Guidelines Section 15064.3(b) focuses on specific criteria (VMT) for determining the significance of transportation impacts. Under the new transportation guidelines, LOS, or vehicle delay, does not constitute an environmental impact. VMT has been adopted as the most appropriate measure of transportation impacts under CEQA.

The City has not yet adopted the use of guidelines and thresholds related to VMT, therefore the following analysis has been prepared consistent with the SBCTA's Guidelines which provides guidance on the requirements to evaluate transportation impacts for projects using the VMT metric. This analysis was conducted to determine whether a detailed transportation analysis (VMT) would be required for the proposed project. As shown in the screening analysis below, the proposed project would not require a detailed VMT analysis. The City's scoping agreement form to support the LOS screening is also attached to this memorandum (Attachment A).

1 Project Description

The project would include construction of a warehouse building of approximately 53,665 square feet (inclusive of 4,000 square feet of office and mezzanine space) located on the south side of 5th Street, west of Central Avenue in the City. Regional access to the project area is provided by Interstate (I-) 10 to the south, I-215 to the west, and State Route (SR) 210 to the north and east. Local access to the project site is provided by 5th Street and Central Avenue. Figure 1 illustrates the project's location. Figure 2 illustrates the project's site plan.

2 Trip Generation

2.1 Proposed Project

Table 2 provides a summary of trip generation estimates for the project based on ITE's Trip Generation, 11th Edition, for Warehousing use (ITE Code 150). Additionally, per the City's direction on a similar project, the warehouse (non-cold storage buildings) truck fleet mix from the South Coast Air Quality Management District's (SCAQMD) Warehouse Truck Trip Study Data Results and Usage (SCAQMD 2014) was used to estimate project-related truck traffic. Based on the SCAQMD data, passenger cars would account for 72.5% trips of the total trips generated by a warehouse facility, and truck trips would account for approximately 27.5% of the total trips. The total percentage of truck trips were further divided by 2-axle, 3-axle, and 4+ axle trucks per the SCAQMD study. These truck trips generated by the project were then converted to passenger car equivalent (PCE) trips by using the recommended PCE factors. PCE factors consistent with the County's Congestion Management Plan (CMP) guidelines.

Table 1. Project Trip Generation Summary

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Rates and Trip Generation								
Warehousing[1]	per TSF	1.71	0.13	0.04	0.17	0.05	0.13	0.18
Land Use								
Proposed Project	53.665 TSF	92	7	2	9	3	7	10
Land Use	**Vehicle Classification[2]**	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
			In	Out	Total	In	Out	Total
Non-PCE Trips	Passenger Cars (72.5%)	67	5	2	7	2	5	7
	2-axle Trucks (4.6%)	25	2	0	2	1	2	3
	3-axle Trucks (5.7%)	5	0	0	0	0	0	0
	4+axle Trucks (17.2%)	16	2	0	2	1	2	3
	Total Non-PCE Trips	**92**	**7**	**2**	**9**	**3**	**7**	**10**

Table 1. Project Trip Generation Summary

Project Trip Generation PCE								
PCE Trips[3]	Passenger Cars (1.0 PCE)	67	5	2	7	2	5	7
	2-axle Trucks (1.5 PCE)	6	0	0	0	0	0	0
	3-axle Trucks (2.0 PCE)	10	0	0	0	0	0	0
	4+axle Trucks (3.0 PCE)	48	6	0	6	3	6	9
	Total PCE Trips	**131**	**11**	**2**	**13**	**5**	**11**	**16**

Notes: TSF = thousand square feet, PCE = passenger car equivalent
Some of the totals may not match exactly due to rounding.
1 Trip rates from the Institute of Transportation Engineers, Trip Generation, 11th Edition, 2021. Land Use Code 150 – Warehousing.
2 Vehicle Mix and Percent from SCAQMD, Warehouse Truck Trip Study Data Results and Usage, July 2014.
3 Passenger Car Equivalent (PCE) factors per the San Bernardino County CMP, 2016.

As shown in Table 1, the proposed project would generate approximately 92 daily trips, with 9 trips (7 inbound and 2 outbound) in the AM peak hour, and 10 trips (3 inbound and 7 outbound) in the PM peak hour. Adjusting for PCE, the trip generation is approximately 131 daily PCE trips, 13 AM PCE peak hour trips (11 inbound and 2 outbound) and 16 PM PCE peak hour trips (5 inbound and 11 outbound).

3 LOS Screening Analysis

The City of Highland's Traffic Study Guidelines are included in Chapter 9 of the City's Public Works Policies, Procedures and Standards Manual. Per the Traffic Study Guidelines, a Traffic Report would be required if a project exceeds the CMP threshold (250 two-way peak hour trips) or generates more than 1,000 new two-way daily trips, or 100 two-way peak hour trips. Additionally, the City continues to require a Traffic Report to analyze the surrounding transportation network to evaluate the project's effect on the City's transportation infrastructure, and identify improvements required to maintain consistency with the City's LOS standards.

Based on the project's trip generation estimates as described above, development of the proposed project would likely not result in degradation of the nearest intersections due to the low volume of vehicular traffic (less than 100 peak hour trips). Therefore, a detailed LOS analysis would not be required.

4 VMT Screening Analysis

The Governor's Office of Planning and Research prepared a comprehensive update to the CEQA Guidelines in 2017 that was approved by the California Natural Resources Agency in December 2018, requiring that lead agencies use VMT for analyzing transportation impacts (OPR 2018). CEQA Guidelines Section 15064.3 states that "generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts," and define VMT as "the amount and distance of automobile travel attributable to a project." It should be noted "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT does not need to be included in the analysis, per Senate Bill 743 requirements. Other relevant considerations may include the effects of the project on transit and non-motorized traveled.

The City directed Dudek to use the City's draft guidance and thresholds related to VMT, based on the SBCTA Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment for screening and analyzing VMT. The following screening criteria was analyzed per the SBCTA Guidelines per direction

from the City on similar projects in the area, in lieu of formally adopted City VMT guidelines. The following criteria is satisfactory in order to screen-out of significant VMT impacts:

- ***Projects generating less than 110 daily trips[1]:*** The proposed project is the construction and development of 53,665 square feet of warehousing building, estimated to generate 92 daily trips (non-PCE). The project would not generate 110 or more new daily trips Therefore, the Project would be screened out using this criterion and can be presumed to result in a less than significant VMT impact.

5 Conclusions

Based on the trip generation analysis above and adjusting for PCE, the proposed project would generate fewer than 100 new AM or PM peak-hour trips (see Table 1). Adjusting for PCE, the project would generate approximately 13 AM PCE peak hour trips (11 inbound and 2 outbound) and 16 PM PCE peak hour trips (5 inbound and 11 outbound). This project would be developed on a site that does not currently have any buildings, thus does not have any existing trip credit. Per the City's TIA guidelines and project trip generation estimates, the proposed project would not be required to prepare an LOS analysis.

Based on the trip generation analysis above, the project would not generate 110 or more new daily trips. The proposed project would be screened out from conducting further VMT analysis and is presumed to have a less-than-significant VMT impact. Thus, the project would not require any mitigation.

6 References

City of Highland. *Public Works Policies, Procedures, and Standards Manual.*

ITE (Institute of Transportation Engineers). 2021. *Trip Generation Manual*. 11th ed.

OPR (California Governor's Office of Planning and Research). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018. Accessed May 2020. http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

San Bernardino County Transportation Authority (SBCTA). *Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment.* February 2020. https://www.sbcounty.gov/uploads/DPW/docs/Traffic-Study-Guidelines.pdf

[1] OPR's Technical Advisory, 2018: CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

SCAQMD (South Coast Air Quality Management District). 2014a. *Warehouse Truck Trip Study Data Results and Usage. Inland Empire Logistics Council*. June 2014. https://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/final-ielc_6-19-2014.pdf?sfvrsn=2.

SCAQMD. 2014b. *Warehouse Truck Trip Study Data Results and Usage, Back Up Slides*. Stakeholder Working Group. July 17, 2014 http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finalswg071714backup.pdf.

Attachment A

Traffic Scoping Form



SOURCE: ESRI 2020

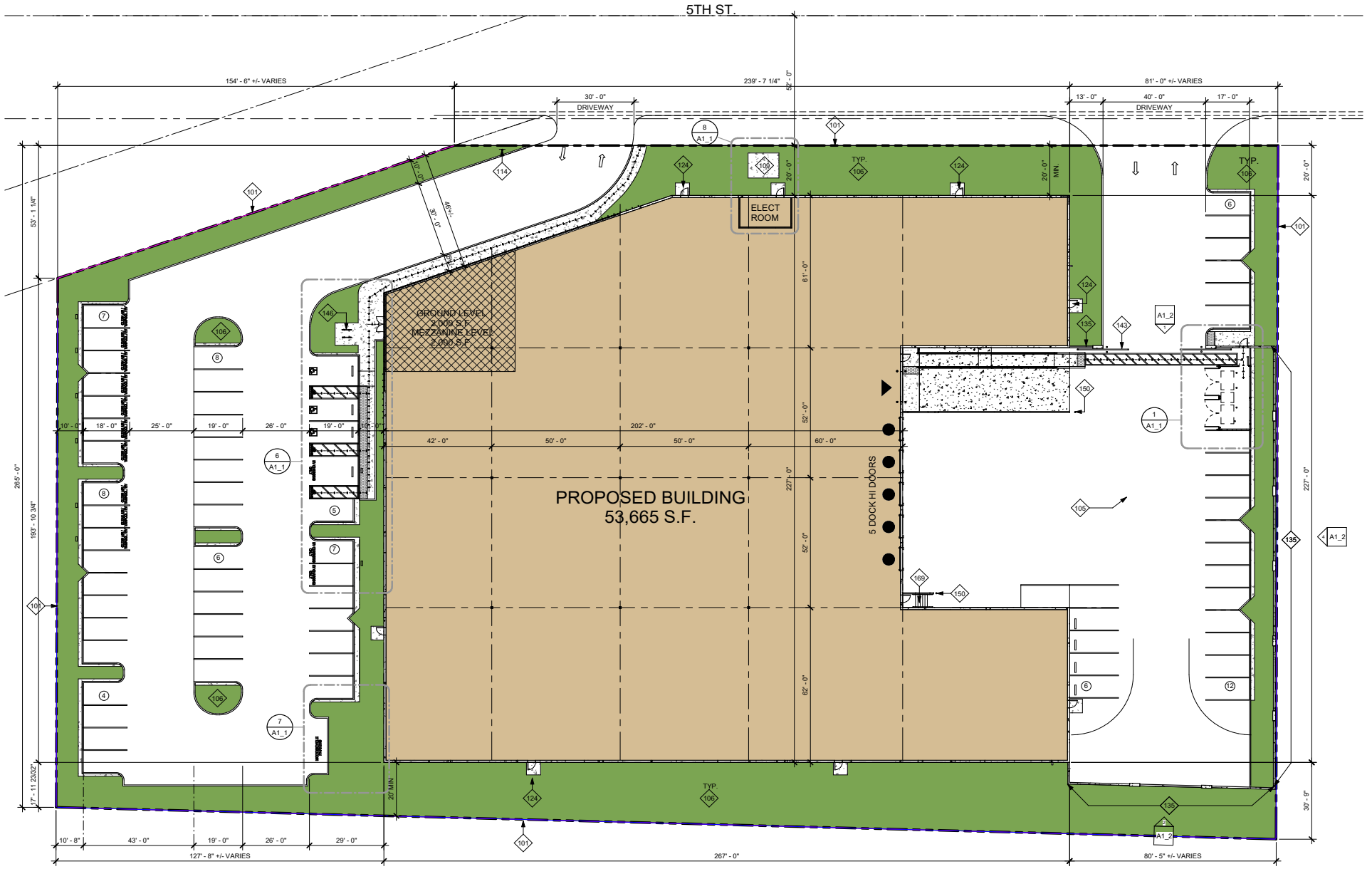
DUDEK

0 500 1,000 Feet

FIGURE 1

Project Location

5th Street and Central Avenue Warehouse Project



1 PROPOSED SITE PLAN
1" = 20'-0"

SOURCE: Herdman 2023

FIGURE 6
Site Plan
5th Street and Central Avenue Warehouse Project ISMND

DUDEK

City of San Bernardino Public Works / Traffic Engineering Department

Traffic Scope Approval Form

To be completed by applicant consultant and approved by Public Works prior to start of study

Project Name: Project Warehouse

Address: Project 5th Street & Central Warehouse Project

Description: Southside of 5th Street, west of Central Avenue, Highland

Developer's Name: Single warehouse building approximately 53.665 tsf (inclusive of 4 tsf of office/mezzanine)

Address: Patriot Development Partners

Telephone no. 12126 W. Sunset Boulevard, Los Angeles CA, 90049 **Email Address:** 858-952-4132 kevin@patriotdevelopmentpartners.com

Trip Generation Rates from ITE Latest Edition SEE ATTACHED TABLE 1. FOR DETAILED PROJECT TRIP GENERATION.

Land Use (1)	Warehouse	
Development Sq Ft	53,665	
ITE Land Use Code	150	
Daily Trips	92 (131 PCE)	
AM Peak Hour Trips		
Inbound	7 (11 PCE)	
Outbound	2 (2 PCE)	
Total	9 (11 PCE)	
PM Peak Hour Trips		
Inbound	3 (5 PCE)	
Outbound	7 (11 PCE)	
Total	10 (16 PCE)	

Development Sq Ft		
ITE Land Use Code		
Daily Trips		
AM Peak Hour Trips		
Inbound		
Outbound		
Total		
PM Peak Hour Trips		
Inbound		
Outbound		
Total		

(Use Additional Sheet(s), if necessary)

Pass-by Trips (%), if applicable _____ %

Land Use (1)		**Land Use (2)**
Development Sq Ft		**Development Sq Ft**
ITE Land Use Code		**ITE Land Use Code**
Daily Trips		**Daily Trips**
AM Peak Hour Trips		**AM Peak Hour Trips**
Inbound		**Inbound**
Outbound		**Outbound**
Total		**Total**
PM Peak Hour Trips		**PM Peak Hour Trips**
Inbound		**Inbound**
Outbound		**Outbound**
Total		**Total**

Project Opening Year: _____ **Build-out Year:** _____

Study Intersections:

1	N/A - Project generates <1000 daily	**6**	
2	trips and also <100 peak hour trips	**7**	
3		**8**	
4		**9**	
5		**10**	

(Use Additional Sheet(s) and Maps to show project Boundaries & Attach memo for project Description)

City of San Bernardino Public Works / Traffic Engineering Department

Traffic Scope Approval Form

To be completed by applicant consultant and approved by Public Works prior to start of study

Study Roadway Segments: 1 N/A - Project generates <1000 daily trips and also <100 peak hour trips; 2; 3; 6; 7; 8

Proposed Development Use: ☐ Residential ☐ Commercial ☐ Mixed Use ☑ Other

Software methodology: ☐ Synchro ☐ HCS

Additional issues to be considered:

- ☐ Traffic calming measures
- ☐ Queuing Analysis
- ☐ Bike/Ped Accommodations
- ☐ Merge Analysis
- ☐ Gap Analysis
- ☐ Actuation/Coordination
- ☐ Safety Analysis
- ☐ Sight Distance Analysis

Is the project screened from VMT assessment? (Yes) No

VMT Screening Justification: The City of Highland does not have VMT guidelines, however using Governor's Office of Planning and Research's (OPR) guidance for small project (i.e. projects that generate less than 110 daily trips), the project would screen out of conducting a detailed VMT analysis. As shown in attached Table 1 Project Trip Generation for 6th and Del Rosa Warehouse, the project would generate 92 daily trips (non-PCE), therefore it would screen out and result in a less than significant VMT impact.

Ambient Growth Rate: _____%

SEE ATTACHED FOR Figure 1 PROJECT TRIP DISTRIBUTION AND Figure 2 PROJECT TRIP ASSIGNMENT FIGURES.

Trip Distribution: East_____% West_____% North_____% South_____%

Consultant Preparer's Name: Dudek, Dennis Pascua, Transportation Services Manager

Address: 605 Third Street, Encinitas, CA 92024

Telephone No. 760-479-4256 **PE /TE License #:** Charles Greely, PE CA No. 69056

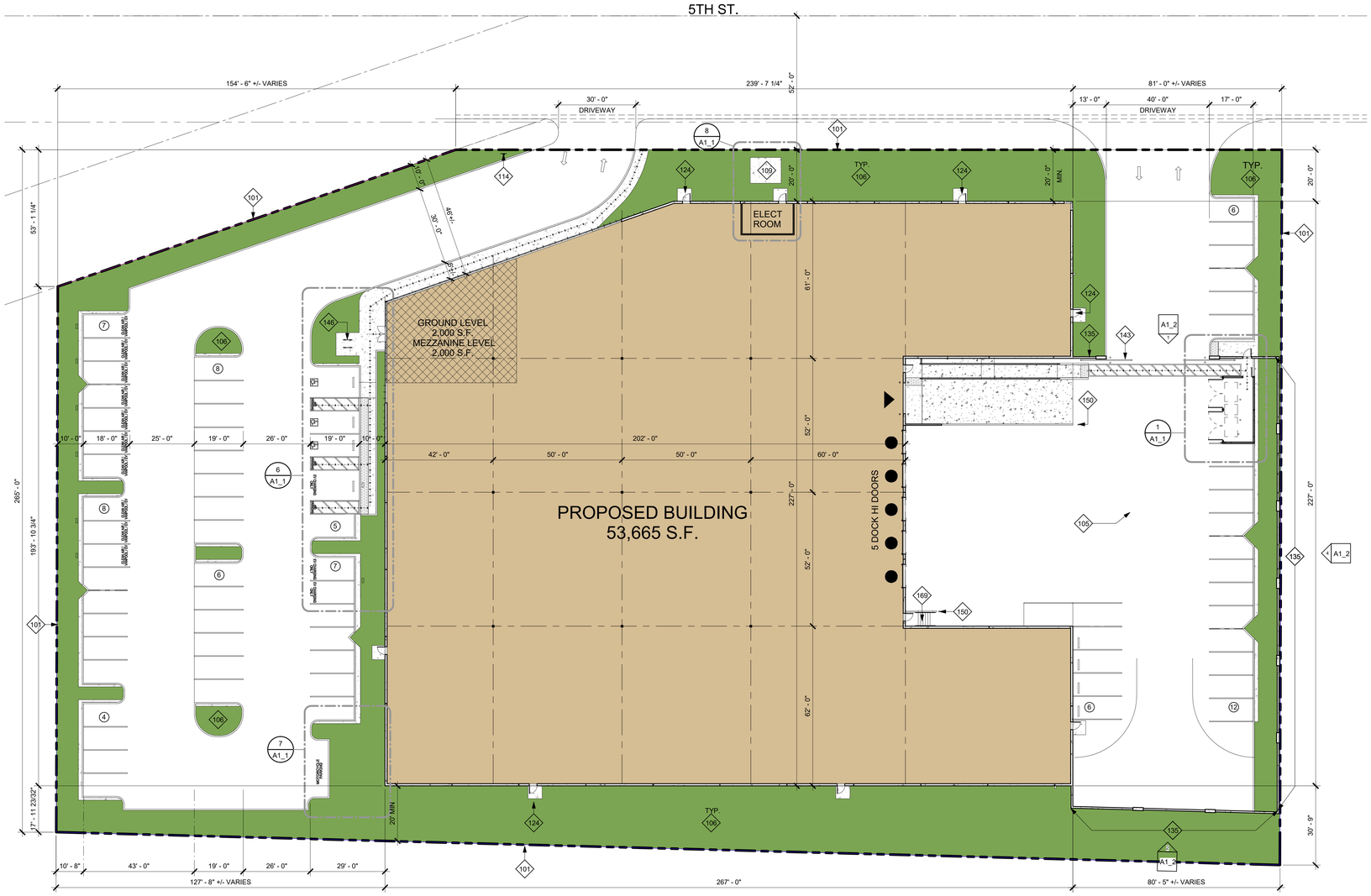
Email Address: dpascua@dudek.com

Signatures: _____ **Date:** 05/05/2023

Approved By (Public Works Department):

Signatures: _____ **Date:** _____

Name: _____ **Title:** _____



1 PROPOSED SITE PLAN
1" = 20'-0"

DEVELOPER/OWNER

PATRIOT PARTNERS
12126 W. SUNSET BLVD.
LOS ANGELES, CA 90049
CONTACT: 858.552.4134
EMAIL: KEVIN@PATRIOTDEVELOPMENTPARTNERS.COM

APPLICANT'S REPRESENTATIVE/ARCHITECT

HERDMAN ARCHITECTURE & DESIGN, INC.
100 BAYVIEW CIRCLE SUITE 100
NEWPORT BEACH, CA 92660
CONTACT: BRIDGET HERDMAN
PHONE: 714.389.2800
EMAIL: PROJECTADMIN@HERDMAN-AD.COM

SCOPE OF WORK

CONSTRUCT NEW ONE STORY + MEZZANINE CONCRETE TILT-UP WAREHOUSE/DISTRIBUTION FACILITY WITH ELECTRICAL AND PLUMBING SERVICES, EXTERIOR LIGHTING, LANDCAPING & IRRIGATION, TRASH ENCLOSURES, CONCRETE SCREEN WALLS, AND SLIDING/SWINGING METAL GATES. FIRE SPRINKLER AND GRADING PLANS TO BE A SEPARATE SUBMITTAL AND PERMIT

LEGAL DESCRIPTION & ZONING

LEGAL DESCRIPTION:

ASSESSOR'S PARCEL NO:

PROJECT INFORMATION & AREA ANALYSIS

BUILDING ADDRESS: XXXX
CONSTRUCTION TYPE: III-B
OCCUPANCY: B / S-1
FIRE SPRINKLER: YES (ESFR NFPA 72, NFPA 13 & NFPA 24)
CLEAR HEIGHT: 32'

ZONING:
GENERAL PLAN: (BP) BUSINESS PART
SPECIFIC PLAN: N/A
FEMA FLOOD ZONE: NO FLOOD ZONE

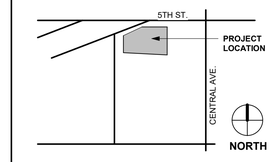
BUILDING SETBACKS:
FRONT SETBACK: 20'
SIDE SETBACK: 20'
REAR SETBACK: 20'

ALLOWABLE AREA:
UNLIMITED AREA PER CBC 507 OR X SF PER TABLE 506.2

SHEET INDEX

A1 SITE PLAN
A1_1 ENLARGED SITE PLANS
A1_2 GATE & FENCE ELEVATIONS
A1_3 SITE WALL PLAN
A2 GROUND LEVEL FLOOR PLANS
A4 EXTERIOR ELEVATIONS
A5 COLOR BOARD
C1 CONCEPTUAL GRADING PLAN
L1 CONCEPTUAL LANDSCAPE PLAN
FC-1.0 SITE PHOTOMETRIC PLAN

VICINITY MAP



SITE PLAN GENERAL NOTES

1. THE SITE PLAN SHALL MEET ALL ENGINEERING & NPDES REQUIREMENTS.
2. GENERAL CONTRACTOR TO REVIEW THE SOILS REPORT AND ALL AMENDMENTS LISTED ON THE TITLE SHEET AND FOLLOW ALL RECOMMENDATIONS.
3. U.O.N., ALL DIMENSIONS TO CONCRETE WALLS AND CURBS ARE EITHER TO THE CENTER (SHOWN WITH A CENTERLINE) OR FACE OF THE WALL OR CURB. ALL DIMENSIONS TO FRAMED WALLS ARE EITHER TO THE CENTER LINE OF THE WALL FRAMING (SHOWN WITH A CENTERLINE) OR THE FACE OF THE WALL FINISH.
4. REFER TO CIVIL, AND MEP PLANS TO CONFIRM UTILITY INFORMATION SHOWN ON THE ARCHITECTS SITE PLAN AND FOR ADDITIONAL UTILITY INFORMATION. GENERAL CONTRACTOR TO COORDINATE ALL POINTS OF CONNECTION.
5. REFER TO CIVIL DRAWINGS FOR ALL FINISHED GRADES AND SLOPES. ALL FINISHED GRADES TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING. GENERAL CONTRACTOR TO FIELD VERIFY.
6. ALL ACCESSIBLE ROUTES IDENTIFIED ON THE SITE PLAN DRAWINGS SHALL CONFORM TO THE FOLLOWING:
   a) SLOPES IN THE DIRECTION OF TRAVEL DO NOT EXCEED 5%. CROSS SLOPES DO NOT EXCEED 2%.
   b) THE CLEAR WIDTH OF ALL WALKWAYS IS 4'-0" MIN.
   c) CHANGES IN LEVEL UP TO 1/2" COMPLY w/ 11/A0.2.1. CHANGES IN LEVEL GREATER THAN 1/2" IF THEY OCCUR ARE RAMPED. SEE PLANS.
   d) THE VERTICAL CLEARANCE ALONG THE ACCESSIBLE ROUTE IS 80" MIN.
7. ALL PAVED AND LANDSCAPED AREAS TO BE BOUND BY A MIN. 6" HIGH, 6" WIDE CONCRETE CURB U.O.N.
8. A CONCRETE MOW STRIP EXTENDING 12" BEYOND EA END OF THE OPENING SHALL BE PROVIDED @ ALL EXTERIOR GLAZING WHERE THE SILL IS WITHIN 3' VERTICAL OF THE FINISHED GRADE. SEE 2/AD1.1
10. PROVIDE PIPE BOLLARD PROTECTION POSTS AS REQUIRED BY UTILITY COMPANIES AND OR FIRE AUTHORITIES AT ALL EXTERIOR ELECTRICAL EQUIPMENT AND FIRE PREVENTION DEVICES. IF PIPE BOLLARD PROTECTION POST DETAILS ARE NOT PROVIDED BY UTILITY COMPANIES AND OR FIRE AUTHORITY SEE DETAIL 3/AD1.1
11. ALL EXPOSED BIORETENSION DEVICE COVERINGS SHALL BE PAINTED FOREST GREEN.
12. WHERE OCCURS, GENERAL CONTRACTOR TO PROVIDE FLUID APPLIED DAMP PROOFING AT ALL RETAINING AND PLANTER WALLS WHERE THE SIDE OF THE WALL OPPOSITE THE SOIL SIDE IS EXPOSED TO VIEW AND ALL EXTERIOR WALLS WHERE THE ADJACENT FLOOR SLAB IS BELOW GRADE. SEE 6/AD1.2
13. PROVIDE A HOSE BIB NEAR THE MAIN ENTRANCE AND IN THE TRASH ENCLOSURE. SEE PLAN FOR LOCATION.

KEYNOTES

101 PROPERTY LINE.
105 CONCRETE PAVING.
106 @ SHADING, PROPOSED LANDSCAPING. SEE LANDSCAPE PLANS.
109 (N) TRANSFORMER LOCATION.
114 ACCESSIBLE PARKING SITE ENTRANCE SIGN.
124 EXERIOR CONCRETE LANDING.
135 CONCRETE TILT-UP SCREEN WALL. MIN HEIGHT 8'ABOVE HIGHEST ADJACENT FINISHED GRADE. PAINT BOTH SIDES AND TOP OF WALL. SEE PLANS FOR COLOR SCHEDULE.
143 PAINTED STEEL ROLLING GATE(S). MIN HEIGHT X' ABOVE HIGHEST ADJACENT FINISHED GRADE OR AS SHOWN ON EXTERIOR ELEVATIONS. PROVIDE KNOX BOX AS REQUIRED BY FIRE AUTHORITY.
146 2 POSITION BIKE RACK.
150 STEEL PIPE BOLLARD PROTECTION POST.
169 CONCRETE STAIRS ON GRADE.

LOT AREA

SQUARE FOOTAGE	ACRES
NET	
124788 SF	2.86

FLOOR AREA RATIO

BUILDING AREA	SITE AREA	FAR ALLOWABLE	FAR PROVIDED
53665 SF	124788 SF	60%	43%

BUILDING AREA SUMMARY

NAME	AREA
GROUND FLOOR	
WAREHOUSE	49665 SF
OFFICE	2000 SF
	51665 SF
MEZZANINE	
OFFICE	2000 SF
	2000 SF
GROUND LEVEL + MEZZANINE	
WAREHOUSE	49665 SF
OFFICE	4000 SF
TOTAL BUILDING AREA	53665 SF

LANDSCAPE AREA SUMMARY

LOT AREA	% LANDSCAPING REQUIRED	AREA LANDSCAPING PROVIDED	% LANDSCAPING PROVIDED
124788 SF	0%	26271 SF	21.1%

TOTAL PARKING REQUIRED

BUILDING USE	BUILDING AREA	PARKING RATIO 1/X	REQ. PARKING
OFFICE	4000 SF	250	16
WAREHOUSE	49665 SF	1000	49.7
TOTAL	53665 SF		65.7

REQUIRED PARKING BREAKDOWN

SPACE TYPE	SPACES REQUIRED
STANDARD STALLS	50
STANDARD ACCESSIBLE STALLS	2
VAN ACCESSIBLE STALLS	1
FUTURE EV CHARGING ONLY STALLS	2
FUTURE EV CHARGING ONLY STANDARD ACCESSIBLE STALLS	10
FUTURE EV CHARGING ONLY VAN ACCESSIBLE STALLS	1
TOTAL	66

PARKING PROVIDED

SPACE TYPE	SPACES PROVIDED
STANDARD STALLS	50
STANDARD ACCESSIBLE STALLS	2
VAN ACCESSIBLE STALLS	1
EV CHARGING ONLY STALLS	2
FUTURE EV CHARGING ONLY STALLS	10
EV CHARGING ONLY VAN ACCESSIBLE STALLS	1
TOTAL	66

SITE LEGEND

LANDSCAPE AREA

CONCRETE PAVING WHEN OCCURS @ PARKING AREAS, DRIVE AISLES & / OR TRUCK COURT. SEE CIVIL DRAWINGS FOR PAVING SECTIONS

FIRE HYDRANT. PROVIDE PIPE BOLLARD PROTECTION POSTS AS REQUIRED BY THE FIRE AUTHORITY. SEE 3/AD1.1

STREET LIGHT

INDICATES AN ACCESSIBLE ROUTE. MUST COMPLY w/ SITE PLAN GENERAL NOTE #6

PROPERTY LINE

DOCK HIGH DOOR

DRIVE THRU. DOOR

PROJECT
PATRIOT PARTNERS 5TH AND CENTRAL
FIRST PLANNING SUBMITTAL
HIGHLAND, CA

HERDMAN
ARCHITECTURE + DESIGN

A22-2227
03.22.2023

SITE PLAN

A1

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Table 1. Trip Generation for 5th & Central Warehouse, Highland

Land Use	ITE Code	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
TRIP RATES [1]									
Warehousing	150	TSF	1.71	0.13	0.04	0.17	0.05	0.13	0.18
PROJECT TRIP GENERATION									
Proposed Project	150	53.665 TSF	92	7	2	9	3	7	10
Vehicle Mix[2]		**Percent**[2]							
Passenger Vehicles		72.5%	67	5	2	7	2	5	7
Trucks		27.5%	25	2	0	2	1	2	3
2-Axle Trucks		*4.6%*	*4*	*0*	*0*	*0*	*0*	*0*	*0*
3-Axle Trucks		*5.7%*	*5*	*0*	*0*	*0*	*0*	*0*	*0*
4+-Axle Trucks		*17.2%*	*16*	*2*	*0*	*2*	*1*	*2*	*3*
Project Trip Generation Non-PCE			***92***	***7***	***2***	***9***	***3***	***7***	***10***
		PCE Factor[3]							
Passenger Vehicles		1.0	67	5	2	7	2	5	7
2-Axle Trucks		1.5	6	0	0	0	0	0	0
3-Axle Trucks		2.0	10	0	0	0	0	0	0
4+-Axle Trucks		3.0	48	6	0	6	3	6	9
Project Trip Generation PCE			***131***	***11***	***2***	***13***	***5***	***11***	***16***

Notes: TSF = Thousand Square Feet; PCE = Passenger Car Equivalent

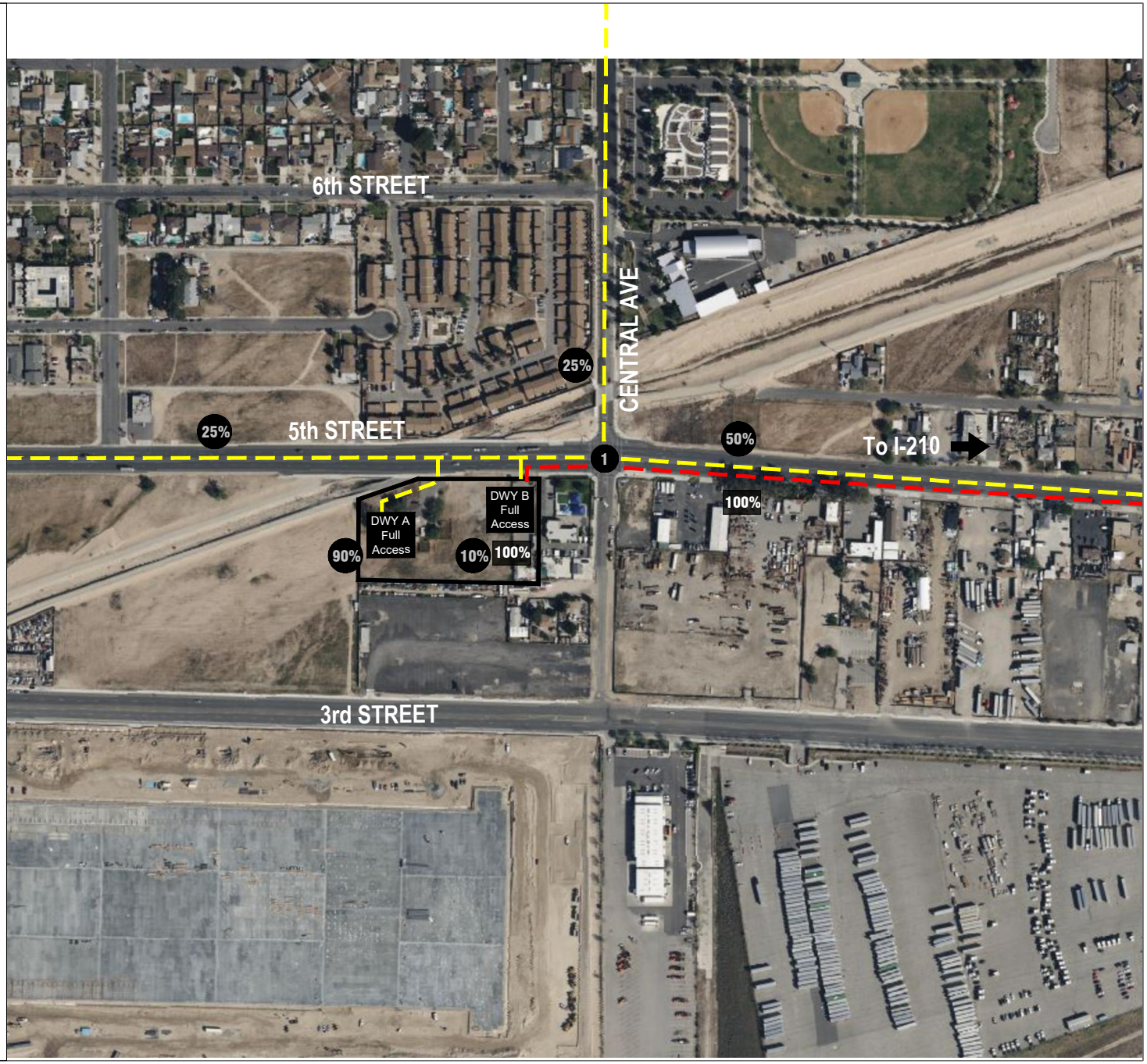
[1]Trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation, 11th Edition, 2021.*

[2] Vehicle Mix and Percent from SCAQMD, Warehouse Truck Trip Study Data Results and Usage, July 2014.

[3] Passenger Car Equivalent (PCE) factors per the San Bernardino County CMP, 2016.

LEGEND

- Project Site
- Passenger Car Route
- Truck Route
- XX% — Passenger Car Trip Distribution Percentage
- XX% — Truck Trip Distribution Percentage



NOT TO SCALE

Figure 1

Project Trip Distribution

5th Street and Central Warehouse Project

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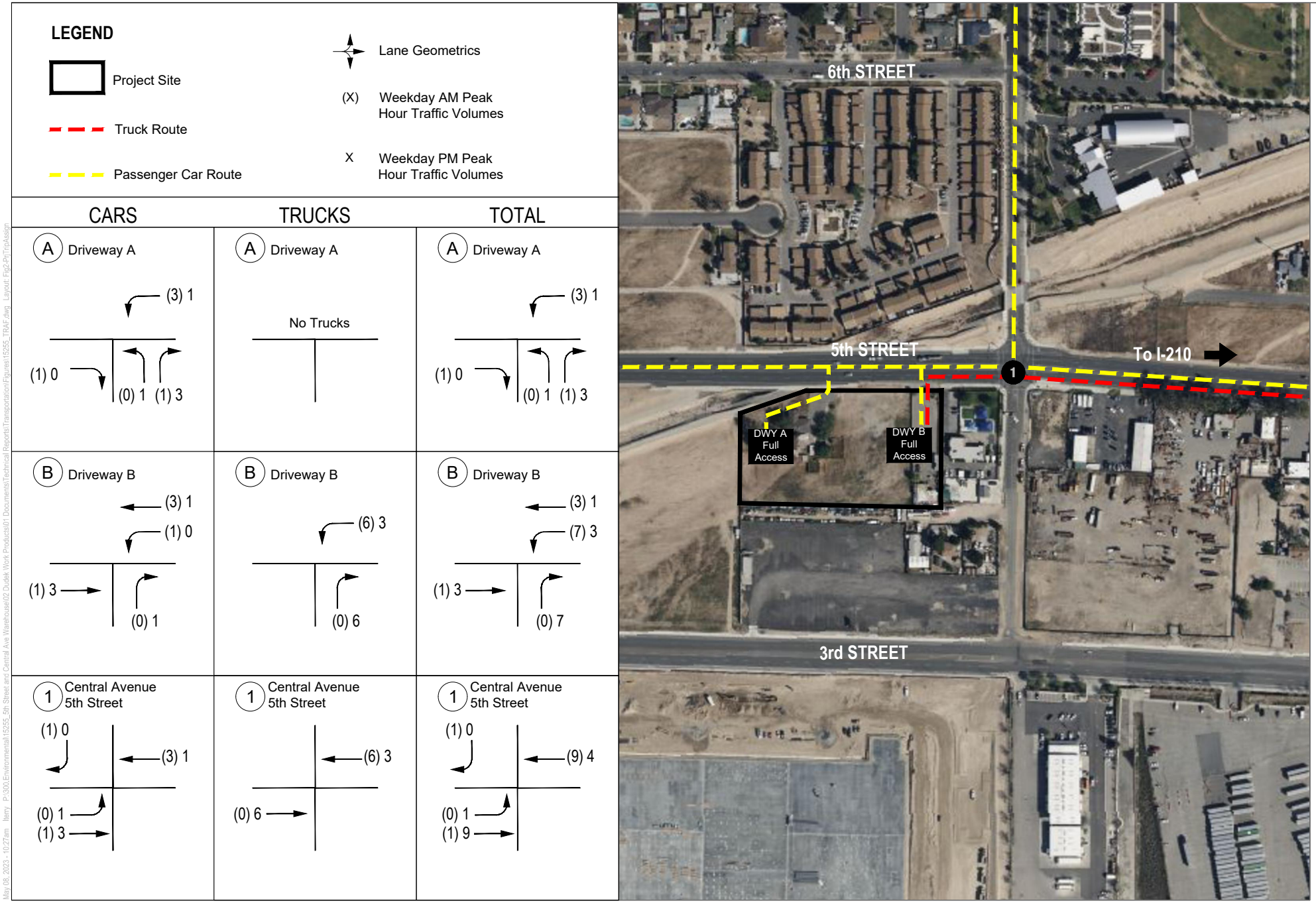


Figure 2

Project Trip Assignment

5th Street and Central Warehouse Project

DUDEK

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