City of Morgan Hill
Development Services Department

CITY OF MORGAN HILL

The Gates Project

Initial Study/Mitigated Negative Declaration

October 2022

Prepared by

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INITIAL STUDY

October 2022

A. PROJECT SUMMARY

1.	Project Title:	The Gates Project
2.	Lead Agency Name and Address:	City of Morgan Hill Development Services Department Morgan Hill, CA 17575 Peak Avenue Morgan Hill, CA 95037
3.	Contact Person and Phone Number:	Joey Dinh Associate Planner (408) 310-4671
4.	Project Location:	18545-18565 Monterey Road Morgan Hill, CA 95037 APNs: 764-10-013 and -015
5.	Project Sponsor's Name and Address:	Samantha Hauser City Ventures, LLC 444 Spear Street, Suite 200 San Francisco, CA 94105 (646) 522-4260
6.	Existing General Plan Designation:	Commercial (C)
7.	Proposed General Plan Designation	Mixed-Use Flex (MU-F)
8.	Existing Zoning Designation:	Planned Development Combining District (PD) General Commercial (GC)
9.	Proposed Zoning Designation	Mixed-Use Flex (MU-F)
8.	Required Approvals from Other Public Agencies:	Federal Emergency Management Agency U.S. Army Corps of Engineers Regional Water Quality Control Board

9. Surrounding Land Uses and Setting:

The project site consists of an approximately 3.82-acre triangular-shaped parcel located at 18545-18565 Monterey Road in the City of Morgan Hill, California. The site is identified by Assessor's Parcel Numbers (APNs) 764-10-013 and -015. The City's General Plan land use designation for the site is Commercial (C), and the zoning designations for the site are Planned Development Combining District (PD) and General Commercial (CG).

Currently, the majority of the site is undeveloped ruderal grassland consisting of various shrubbery scattered throughout and small trees located along the eastern and western borders. The project site also includes 28 parking spaces for the existing Starbucks located to the northwest and an existing storm-drain easement.

The project site is bounded by Monterey Road along the east, and south and Union Pacific Railroad (UPRR) tracks along the west. A commercial center is located immediately to the north. Additional surrounding land uses include an existing apartment complex and the under-construction Butterfield Village Apartments project to the east; undeveloped land to the west, beyond the UPRR tracks and single-family residences further to the west, beyond Old Monterey Road; the Monterey Gateway project to the south, beyond the UPRR tracks and Monterey Road; and the Butterfield Retention Basin to the southeast, across Monterey Road.

10. Project Description Summary:

The Gates Project (proposed project) would include construction of seven residential buildings with a total of 44 townhomes, as well as one mixed-use building with five townhomes, four 665-square-foot commercial spaces, and one 1,350 square foot commercial space. The proposed project would include a children's play area, bocce ball courts, a seating plaza, and barbeque areas, as well as a detention basin in the southern portion of the site. Each townhome would include a two-car garage, with 25 uncovered parking spaces provided throughout the site. Primary site access would be provided by Monterey Road through a new driveway to the site, as well as through the internal roadways that would connect to the commercial center to the north. The project would also include widening and improvements of the Monterey Road frontage. In addition, the existing man-made, storm-drain easement that bisects the property would be reconfigured as three 24-inch culverts and would be extended past Monterey Road to continue to convey off-site flows through the project site towards the west.

The project would require the approval of the following discretionary entitlements: General Plan Amendment from Commercial to Mixed Use Flex; Rezone from PD and CG to Mixed Use Flex (MU-F); Tentative Parcel Map; and Design Permit.

11. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

In compliance with Assembly Bill (AB) 52 (Public Resources Code [PRC] Section 21080.3.1), and Senate Bill (SB) 18, project notification letters were distributed to a consultation list of tribes with traditional lands or cultural places located within the project area, as identified by the Native American Heritage Commission (NAHC), on May 11, 2022. One response was received from the Tamien Nation. The tribe shared concern over the potentially sensitive area, and requested specific measures be taken in the event that archeological resources are found on-site. In addition, the tribe requested a copy of all reports referenced in the Archival Review. The City confirmed with the tribe that the City's Conditions of Approval are still sufficient to the Tamien Nation, and forwarded the reports referenced in the Archival Review, as requested. As such, consultation was deemed complete.

B. SOURCES

The following documents are referenced information sources used within this analysis:

1. Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed August 2022.
2. Association of Bay Area Governments. *Resilience Program*. Available at: http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility. Accessed June 2022.
3. Association of Bay Area Governments. *Resilience Program*. Available at: https://abag.ca.gov/our-work/resilience. Accessed June 2022.
4. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines [pg. 7-1].* May 2017.
5. Bay Area Air Quality Management District. *CEQA Thresholds and Guidelines Update*. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed June 2022.
6. Bay Area Air Quality Management District. *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans.* April 2022.
7. California Air Resources Board. The 2017 Climate Change Scoping Plan Update. January 20, 2017.
8. California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed July 2022.
9. California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Johnson Canyon Sanitary Landfill (27-AA-0005)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2636?siteID=1971. Accessed July 2022.
10. California Department of Transportation (Caltrans). *California State Scenic Highway System Map*. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed June 2022.
11. California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ.* November 2018.
12. California Historical Resources Information System. *Record search results for the proposed Monterey Gateway Project located at 18110 Monterey Road, Morgan Hill, Santa Clara County, California*. November 13, 2019.
13. City of Morgan Hill. *2020 Urban Water Management Plan [pg. 7-4 to 7-7].* 2021.
14. City of Morgan Hill. *2035 General Plan Draft EIR.* January 2016.
15. City of Morgan Hill. *2035 General Plan, City of Morgan Hill [pg. 4.5-17].* Adopted July 2016.
16. City of Morgan Hill. *2035 General Plan, City of Morgan Hill*. Adopted July 2016.
17. City of Morgan Hill. *City Council Staff Report 2163, Accept Report Regarding Wastewater System Needs and Rate Study Schedule*. February 6, 2019.
18. City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map*. March 2009.
19. City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.
20. City of Morgan Hill. *Housing Element [Table 1-1]*. Adopted February 18, 2015.
21. City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report.* Adopted July 2016.
22. City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report [pg. 4.9-18].* Adopted July 2016.
23. Department of Conservation. *State of California, Special Studies Zones, Mt. Madonna Quadrangle, Revised Official Map*. Effective January 1, 1976.

24. Dwight Good, Assistant Chief Cooperative Fire Protection, Morgan Hill Fire Department. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc. June 1, 2021.
25. Federal Emergency Management Agency. *National Flood Hazard Layer FIRMette.* Accessed July 2022.
26. Governor's Office of Planning and Research. *Technical Advisory on Evaluation Transportation Impacts in CEQA*. December 2018.
27. Hexagon Transportation Consultants, Inc. *VMT Assessment for the Proposed The Gates Mixed-Use Development in Morgan Hill, California*. July 1, 2022.
28. Hexagon Transportation Consultations, Inc. *Trip Generation and Operations Analysis for the Propose The Gates Mixed-Use Development in Morgan Hill, California*. July 1, 2022.
29. Johnson Marigot Consulting, LLC. *Preliminary Biological Assessment, 18545-18565 Monterey Road, Morgan Hill, California*. April 1, 2022.
30. Monarch Consulting Arborists. *Tree Inventory, Assessment, and Protection: Morgan Hill APN - 764-10-013, APN - 764-10-015 (Monterey Road).* October 17, 2022
31. Native American Heritage Commission. *Monterey Gateway Project, Santa Clara County.* November 5, 2019.
32. Salinas Valley Solid Waste Authority*. 2019-20 Annual Report*. 2021.
33. Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.
34. Santa Clara County*. Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.
35. Santa Clara Valley Transportation Authority. *2021 Congestion Management Program Document.* December 2021.
36. Santa Clara Valley Water District. *2016 Groundwater Management Plan, Santa Clara and Llagas Subbasins [pg. 1-1].* November 2016.
37. Santa Clara Valley Water District. *C1: Anderson Dam Seismic Retrofit*.* Available at: https://www.valleywater.org/anderson-dam-project. Updated November 2018.
38. Schaaf & Wheeler, Consulting Civil Engineers*. Monterey 8 Development Impact on Floodplain.* June 2, 2022.
39. South Coast Air Quality Management District. 2008. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf. Accessed April 2022.
40. Stantec Consulting Services, Inc. *Additional Arsenic Assessment, 143348545-18565 Monterey Road, Morgan Hill, California, 95037*. July 29, 2021.
41. Stantec Consulting Services, Inc. *Phase I and II Environmental Site Assessment, 18545-18565 Monterey Street, Morgan Hill, California, 95037*. July 8, 2021.
42. Terrasearch, Inc*. Geotechnical Investigation on Proposed Townhome and Commercial Development at 18605 Monterey Road, Morgan Hill, California*. October 20, 2021.
43. Veneklasen Associates*. Morgan Hill, California, Exterior Noise and Façade Acoustical Analysis, VA Project No. 4616-025*. October 12, 2022.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ **Aesthetics**	☐ **Agriculture and Forest 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**

D. DETERMINATION

On the basis of this initial study:

☐ 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 applicant. 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" 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 EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Joey Dinh, Associate Planner	City of Morgan Hill
Printed Name	For

E. BACKGROUND AND INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) identifies and analyzes the potential environmental impacts of the proposed project. The information and analysis presented in this document are organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. Where the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures sufficient to reduce the impacts to less-than-significant levels are prescribed. The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the proposed project, as required by CEQA. The mitigation measures would be incorporated into the proposed project through project conditions of approval. The City would adopt findings and a Mitigation Monitoring/Reporting Program for the proposed project in conjunction with project approval.

In July 2016, the City of Morgan Hill adopted the 2035 General Plan,[1] as well as an associated Environmental Impact Report (EIR) for the updated General Plan.[2] The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations [CCR], Sections 15000 *et seq*.). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan. Applicable portions of the General Plan and General Plan EIR are incorporated by reference, as necessary, as part of this IS/MND. Project-specific technical reports have been prepared for the proposed project and form the basis of several technical sections of this IS/MND. All technical reports used in the preparation of this IS/MND are included as appendices.

F. PROJECT DESCRIPTION

The following provides a description of the project site's current location and setting, as well as the proposed project components and the discretionary actions required for the project.

Project Location and Setting

The project site, identified by APNs 764-10-013 and -015, consists of a 3.82-acre triangular-shaped parcel located at 18545-18565 Monterey Road in the City of Morgan Hill, California (see Figure 1 and Figure 2). The City's General Plan land use designation for the site is C, and the City's zoning designations for the site are PD and CG.

Currently, the majority of the site is undeveloped ruderal grassland consisting of various shrubbery scattered throughout and small trees located along the eastern and western borders. The project site also includes 28 parking spaces for the existing Starbucks located to the northwest and an existing man-made, storm-drain easement which drains into the Butterfield Retention Basin across Monterey Road. The topography of the site is relatively flat, with an elevation of approximately 105 meters above mean sea level (AMSL).

The project site is generally bounded by Monterey Road along the east and south, UPRR tracks along the west, and a commercial center to the north. Additional surrounding land uses include an existing apartment complex and the under-construction Butterfield Village Apartments project to the east; undeveloped land to the west, beyond the UPRR tracks and single-family residences further to the west, beyond Old Monterey Road; the Monterey Gateway project to the south, beyond the UPRR tracks and Monterey Road; and the Butterfield Retention Basin to the southeast, across Monterey Road.

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1 City of Morgan Hill. *2035 General Plan, City of Morgan Hill.* Adopted July 2016.
2 City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report.* Adopted July 2016.

Figure 1
Regional Project Location

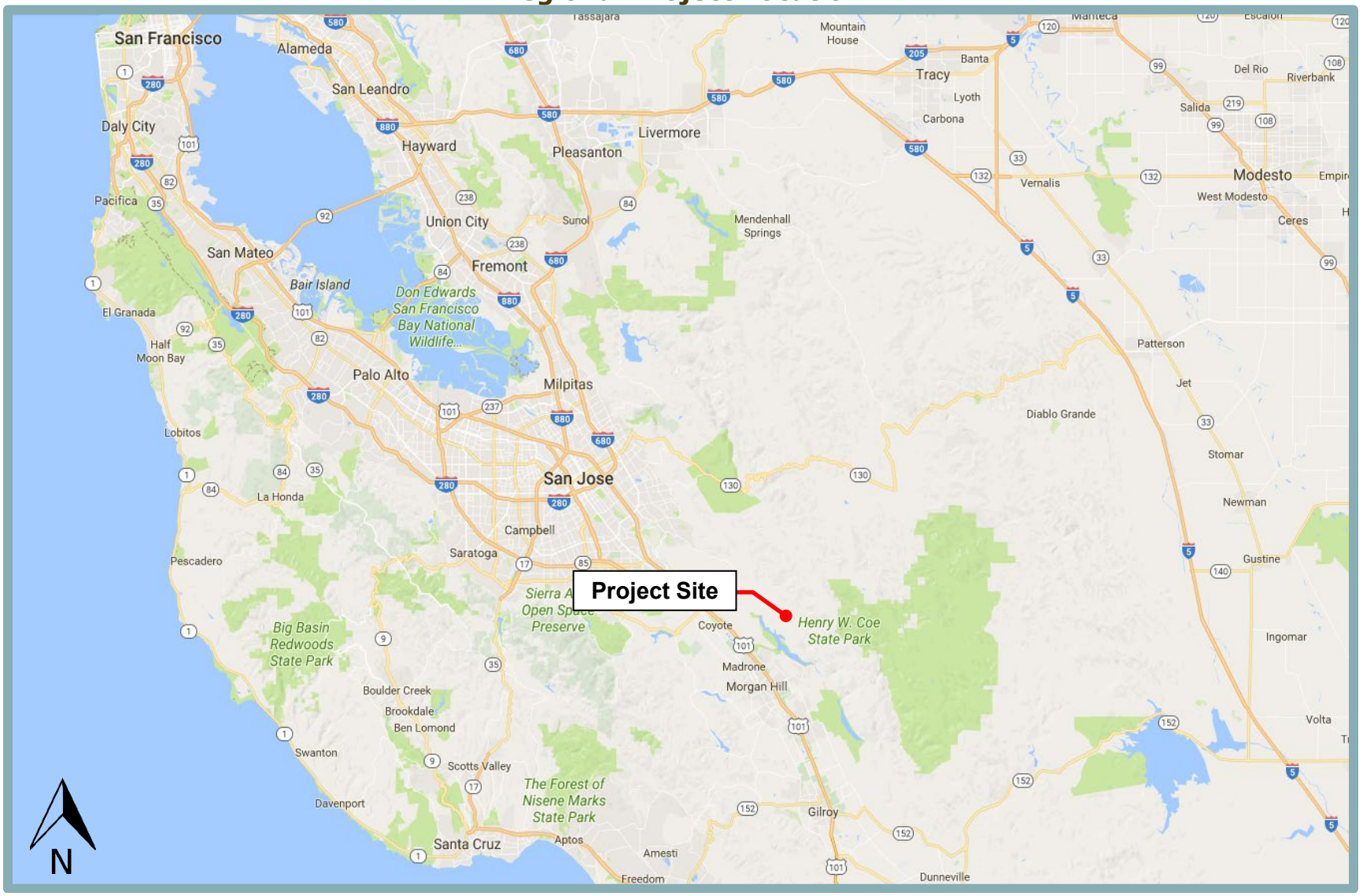


Figure 2
Project Vicinity Map



Project Components

The proposed project would provide four, 665 square foot flexible commercial spaces, one 1,350 square foot commercial space, seven residential buildings with a total of 49 solar, all-electric townhome-style condominiums, a children's play area, bocce ball courts, seating plaza, and barbecue areas (see Figure 3). Residential units would range in size and bedroom count, each with a private two-car garage accessed by a common drive aisle or alleyway. Garage layouts would alternate between side-by-side and tandem garages and each home would be accessed from shared spaces, common open space areas, or streets. At least 15 percent of the total housing units would be made available to households at Moderate Income or 80 percent to 120 percent of Annual Median Income (AMI). Table 1 below provides a summary of the proposed unit mix.

Table 1
Proposed Unit Mix

Plan Number	Total Living Space (sf Per Unit)	Total Number of Units
Plan 1 (3 BD/3 BTH)	1,403	18
Plan 1X (3 BD/3 BTH)*	1,403	8
Plan 2 (3 BD/3 BTH)	1,697	8
Plan 2X (3 BD/3 BTH)**	1,760	10
Plan 3 (3 BD/2.5 BTH with DEN or OPT 4 BD/4 BTH)	2,310	3
Commercial 1	±665	4
Plan 3 (3 BD/2.5 BTH with DEN or 4 BD/4 BTH)	2,310	5
Commercial 2	1,350	1
	Total:	**49 DU/5 CU**

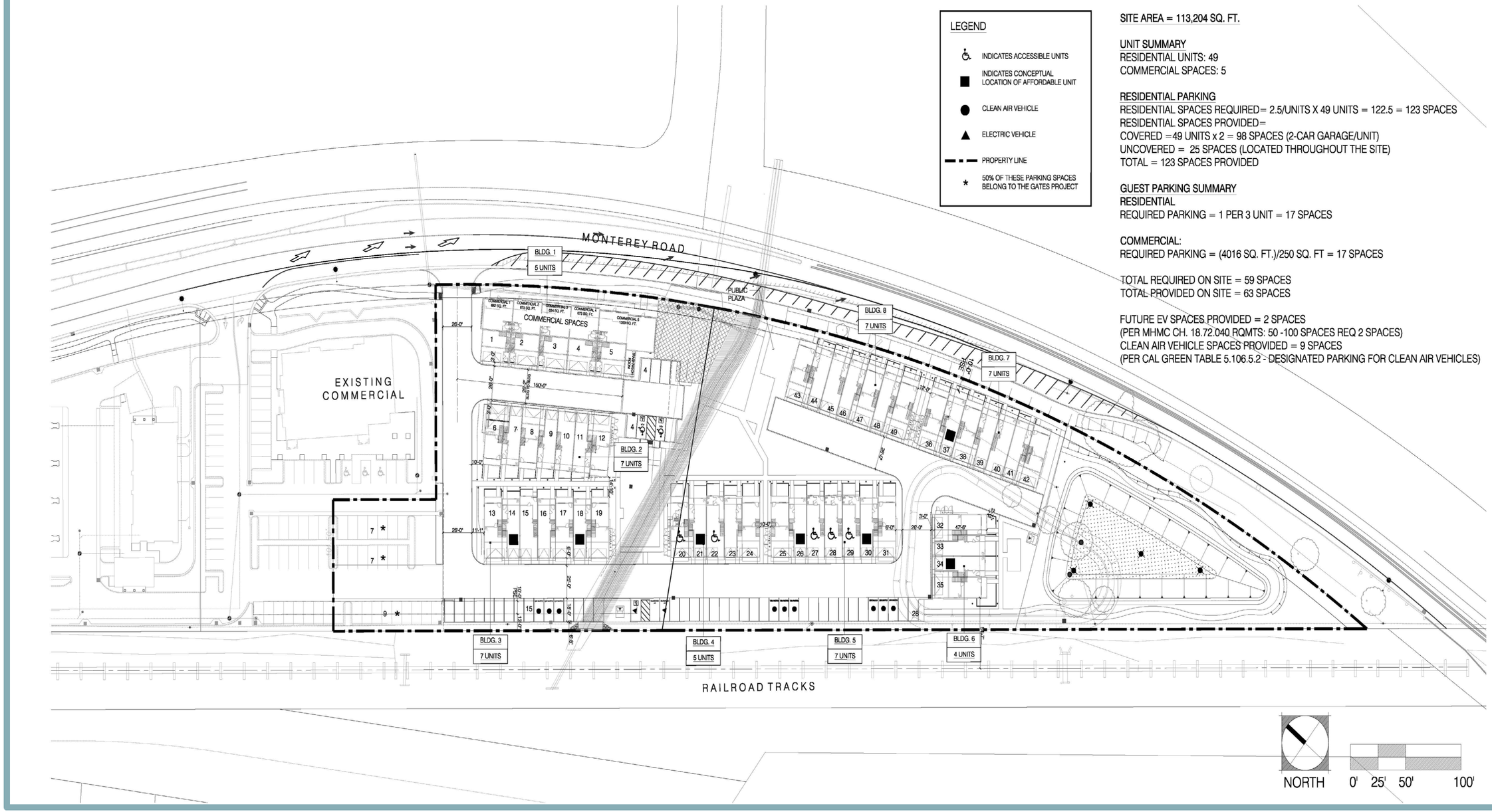
Notes:
- * ADA-compliant units (Four Total)
- ** ADA-compliant unit (One Total)
- DU = Dwelling Unit
- CU = Commercial Unit

Tenants have not yet been identified for the commercial/retail spaces. For the purposes of this analysis, the building is assumed to include any of the uses allowable within the MU-F zoning district, as defined in Section 18.22.020 of the City's Municipal Code. The proposed buildings would be limited to a maximum height of 35 feet, with a minimum of 10 feet devoted to roof elements.

Parking, Access, and Circulation

A total of 123 residential parking spaces would be provided on-site, including 98 garage spaces and 25 uncovered spaces. Nine of the uncovered parking spaces are reserved for clean-air vehicles, while two of the spaces would include electric vehicle (EV) charging stations. As Section 18.72.030.C (Guest Parking) of the Morgan Hill Municipal Code requires guest parking for new residential projects, the project would include 38 spaces on-site for residential and commercial guests, 17 of which would be shared and made accessible through the adjacent commercial property, as part of the access agreement with the project applicant and the commercial property owners, Shilla, Inc.

Figure 3
Preliminary Site Plan



Primary site access would be provided by a new full-access driveway along the west side of Monterey Road. Secondary access would be provided through the commercial center to the north pursuant to an access agreement with the adjacent property owner. The commercial center is accessed from the existing driveway at Monterey Road, as well as at the Monterey Road and Cochrane Road intersection. The proposed residential units would be organized around an internal circulation system consisting of private drive aisles. Pedestrian sidewalks would be provided between the buildings, opposite of the internal circulation network, and would connect to the multiple common spaces throughout the site including a new separated sidewalk along the Monterey Road frontage, connecting to the existing pedestrian sidewalk along the adjacent commercial center to the north (see Figure 4).

Utilities

Water for the proposed development would be provided by the City through a new connection to an existing eight-inch water line in Monterey Road, and sewer service would be provided by the City through a new connection to an existing six-inch line in the commercial center to the north (see Figure 5). Stormwater would be collected by a series of drain inlets along the internal circulation system and transported, by way of underground storm drains to the bioretention/detention pond in the southern portion of the project site, where stormwater would be treated and discharged to the existing headwall along the western boundary of the project site, adjacent to the UPRR tracks. The existing storm-drain easement on-site would be re-configured into three, 24-inch culverts to avoid disrupting the flow of runoff from neighboring properties that currently flow through the open ditch on the project site. Treated water from the existing Butterfield detention basin, located 0.3-mile southeast along Monterey Road, and the existing multi-family residences to the north, would be directed to flow across the site into the existing headwall mentioned above. On-site stormwater runoff from impervious surfaces from the proposed project would not enter the proposed culvert (additional details are provided in Section X, Hydrology and Water Quality, of this IS/MND). Each residence would include a solar-energy system sufficient to produce 100 percent of the electricity demand for the residence.

It should be noted that the proposed project would not use natural gas, as natural gas is prohibited in all new construction within Morgan Hill effective March 1, 2020, pursuant to City Ordinance No. 2306.

Landscaping and Common Space

Pursuant to Section 18.74.050 of the City's Municipal Code, landscaping would be provided throughout the site in accordance with the City's Standard Details for Construction. The project would include multiple common space areas throughout the site including, but not be limited to, a children's play area, bocce ball courts, seating plaza, and barbecue areas. The locations of the proposed outdoor common area amenities are shown in Figure 4. Project landscaping would consist of native drought-tolerant plant species and hydro-zones would be used to make efficient use of water. Planting plans would include new trees and shrubs similar to those within neighboring developments.

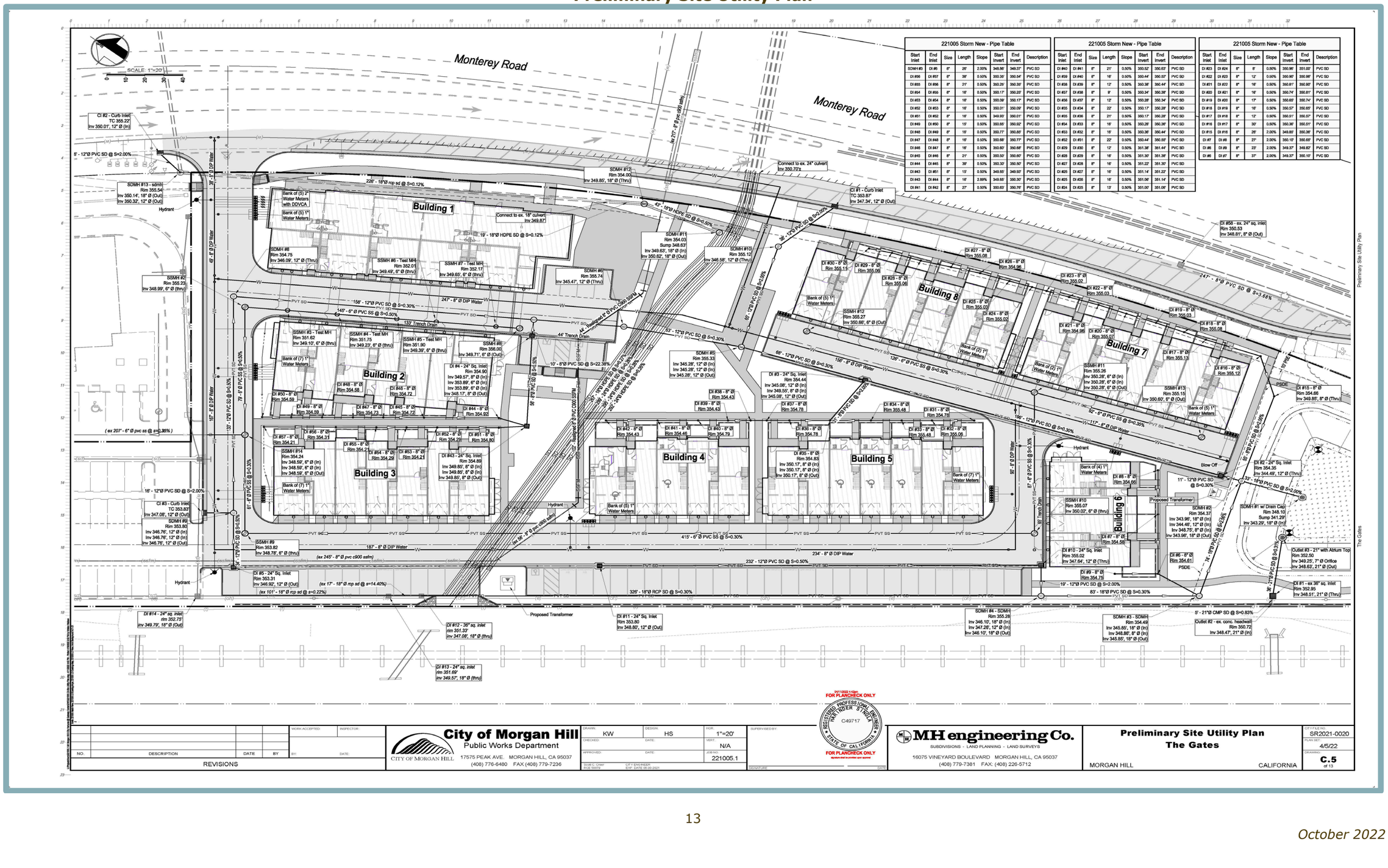
Project Frontage Improvements

To facilitate access, the proposed project would include the widening of Monterey Road along the project frontage east of Building 7, east of the new full-access driveway. The roadway widening would vary between two- and 15.85-feet and would also include curb and gutter improvements along the project frontage.

Figure 4
Landscaping/Outdoor Amenities Plan



Figure 5
Preliminary Site Utility Plan



General Plan Amendment/Rezone

The proposed project would include a General Plan Amendment to change the General Plan land use designation of the project site from Commercial to Mixed Use Flex. In addition, the project would include a Rezone to change the site's zoning designation from PD and CG to MU-F.

Vesting Tentative Map

The proposed project includes a Vesting Tentative Map to subdivide the project site into two parcels (see Figure 6). Parcel One would be south of Jarvis Drive, in the center of the project site, and would have an area of approximately 3.815 acres. Parcel B would encompass Buildings 1-3, southeast of the developed commercial area.

Design Review

The proposed project would require the City's approval of a Design Permit. A Design Permit is a discretionary action that enables the City to ensure that the proposed development exhibits high quality design consistent with the general plan and any other applicable specific plan or area plan adopted by the City Council. The Design Permit process is also intended to ensure that new development and uses are compatible with their surroundings and minimize negative impacts on neighboring properties.

Requested/Required Entitlements

The proposed project would require the City's approval of the following entitlements:

- Adoption of the IS/MND and Mitigation Monitoring and Reporting Program;
- General Plan Amendment from C to Mixed Use Flex;
- Rezone from PD and CG to MU-F;
- Vesting Tentative Map; and
- Design Permit.

In addition, if the General Plan Amendment and Rezone were to be approved, the project site would be located within the Monterey Road Corridor for which a Block Level Master Plan (BLMP) is generally required for all projects wanting to develop within the block, subject to certain requirements of State law established by California SB 330.

G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

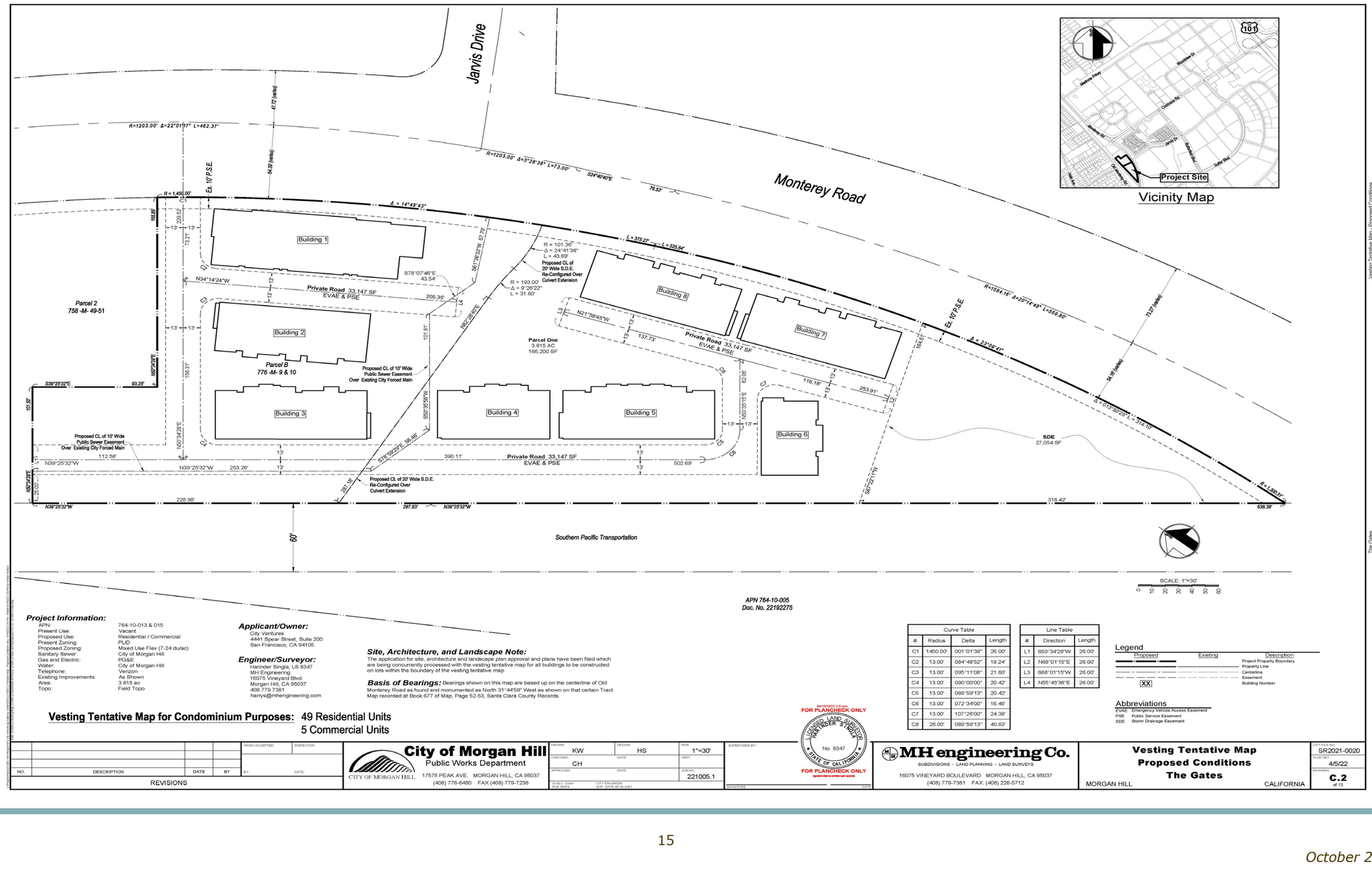
Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

Figure 6
Vesting Tentative Map



Project Information:

APN:	764-10-013 & 015
Present Use:	Vacant
Proposed Use:	Residential / Commercial
Present Zoning:	PUD
Proposed Zoning:	Mixed Use Flex (7-24 du/ac)
Sanitary Sewer:	City of Morgan Hill
Gas and Electric:	PG&E
Water:	City of Morgan Hill
Telephone:	Verizon
Existing Improvements:	As Shown
Area:	3.815 ac
Topo:	Field Topo

Applicant/Owner:
City Ventures
4441 Spear Street, Suite 200
San Francisco, CA 94105

Engineer/Surveyor:
Harinder Singla, LS 8347
MH Engineering
16075 Vineyard Blvd.
Morgan Hill, CA 95037
408.779.7381
harrys@mhengineering.com

Site, Architecture, and Landscape Note:
The application for site, architecture and landscape plan approval and plans have been filed which are being concurrently processed with the vesting tentative map for all buildings to be constructed on lots within the boundary of the vesting tentative map

Basis of Bearings: Bearings shown on this map are based up on the centerline of Old Monterey Road as found and monumented as North 31°44'59" West as shown on that certain Tract Map recorded at Book 677 of Map, Page 52-53, Santa Clara County Records.

Vesting Tentative Map for Condominium Purposes: 49 Residential Units
5 Commercial Units

Curve Table			
#	Radius	Delta	Length
C1	1450.00'	001°01'39"	26.00'
C2	13.00'	084°48'52"	19.24'
C3	13.00'	095°11'08"	21.60'
C4	13.00'	090°00'00"	20.42'
C5	13.00'	089°59'13"	20.42'
C6	13.00'	072°34'00"	16.46'
C7	13.00'	107°26'00"	24.38'
C8	26.00'	089°59'13"	40.83'

Line Table		
#	Direction	Length
L1	S50°34'28"W	26.00'
L2	N68°01'15"E	26.00'
L3	S68°01'15"W	26.00'
L4	N55°45'36"E	26.00'

Legend

Proposed	Existing	Description
		Project Property Boundary
		Property Line
		Centerline
		Easement
XX		Building Number

Abbreviations
EVAE Emergency Vehicle Access Easement
PSE Public Service Easement
SDE Storm Drainage Easement

04/19/2022 2:51pm
FOR PLANCHECK ONLY
LICENSED LAND SURVEYOR HARINDER S SINGLA No. 8347 STATE OF CALIFORNIA
FOR PLANCHECK ONLY

MH engineering Co.
SUBDIVISIONS - LAND PLANNING - LAND SURVEYS
16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037
(408) 779-7381 FAX: (408) 226-5712

City of Morgan Hill
Public Works Department
17575 PEAK AVE. MORGAN HILL, CA 95037
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Vesting Tentative Map
Proposed Conditions
The Gates
MORGAN HILL CALIFORNIA

CITY FILE NO. SR2021-0020
PLAN SET 4/5/22
DRAWING C.2 of 13

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	✖	☐

Discussion

a,c. The Morgan Hill General Plan does not designate official scenic view corridors or vistas. However, according to the General Plan, the hillsides that surround the City to the east and west are considered scenic. The project site is not located on a hillside or in the vicinity of a hillside and is surrounded by existing development to the north, south, and west, as well as planned development further east across Monterey Road. Furthermore, while views of the eastern hills as well as views of the western ridges of the Uvas Canyon County Park are visible by motorists, bicyclists, and pedestrians travelling along Monterey Road and Old Monterey Road respectively, the roadways are not considered scenic vistas.[3] Additionally, views are partially obscured by existing vegetation and development along the roadways.

The project site is primarily undeveloped; however, as discussed above surrounding uses include single-family residences to the east and north, as well as commercial uses along the northern boundary of the project site, and planned development east of Monterey Road. Therefore, the site is in a relatively urbanized area. In accordance with CEQA checklist question 1.c., the relevant threshold is whether the project would conflict with applicable zoning and other regulations governing scenic quality.

The proposed project is subject to a Design Permit in accordance with Morgan Hill Municipal Code Section 18.108.040, which requires that the proposed project be consistent with the Design Permit findings. In addition, while the proposed project would include a General Plan Amendment and Rezone, the site is currently designated for

[3] It is important to distinguish between public and private views. Private views are views seen from privately-owned land and are typically viewed by individual viewers, including views from private residences. Public views are experienced by the collective public. These include views of significant landscape features and along scenic roads. California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) case law has established that only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488] the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" Therefore, it is appropriate to focus the aesthetic impact analysis on potential impacts to public views.

commercial development. Therefore, the City has generally anticipated the development of the site with urban uses. As such, changes to the visual character and quality of the site have been evaluated and approved by the City. In addition, as discussed above, the proposed project would include landscaping elements to screen public views of the site and would be visually compatible with the surrounding development.

Based on the above, the General Plan does not designate any official scenic vistas within the City of Morgan Hill, and the project site is in an urbanized area. In addition, the design review process would ensure that all project elements are consistent with the City's Architectural Review Handbook. Thus, the proposed project would not have a substantial adverse effect on a scenic vista or conflict with applicable zoning and other regulations governing scenic quality, and a ***less-than-significant*** impact would occur.

b. According to the California Department of Transportation (Caltrans) map of Santa Clara County prepared for the Scenic Highway Mapping System, officially designated State or County scenic highways do not occur in the project vicinity.[4] Because the project site is not located in the vicinity of any State scenic highway, the proposed project would not damage any scenic resources within a State scenic highway. Therefore, ***no impact*** related to damaging scenic resources within a State scenic highway would occur.

d. The project site does not currently contain any existing development and thus, with the exception of streetlights along the Monterey Road, relatively minimal sources of light and glare exist within the project vicinity. Development of the proposed project would increase the amount of light including, but not limited to, headlights on cars using the on-site street system, exterior light fixtures, and interior light spilling through windows. However, the existing development to the north, south, and west of the site currently generates light and glare in the area.

In addition, new sources of lighting would be required to comply with the standards set forth in Section G of the City's Architectural Review Handbook, Section 18.76.060 (Glare), and Section 15.40.310 (Open parking lots) of the Morgan Hill Municipal Code, which includes such requirements as cut-off lenses to direct light downward and minimum maintained lighting on parking surfaces. Compliance with such would help to ensure that the light and glare created by the proposed project would be consistent with the levels of light and glare currently emitted in the surrounding developed environment. Therefore, the proposed project would not introduce new sources of substantial light or glare to the site which would adversely affect day or nighttime views in the area, and a ***less-than-significant*** impact would occur.

[4] California Department of Transportation (Caltrans). *California State Scenic Highway System Map.* Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed June 2022.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	✖

Discussion

a,e. The project site is designated as "Urban and Built-Up Land" according to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP).[5] Given the designation of the site as Urban and Built-Up Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use. Therefore, ***no impact*** would occur as a result of the proposed project.

b. The project site is not under a Williamson Act contract and is not zoned for agricultural uses. Therefore, buildout of the proposed project would not conflict with an agricultural use or a Williamson Act contract, and ***no impact*** would occur.

c,d. The project site is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

[5] California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed October 2019.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	✖	☐
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?	☐	☐	✖	☐

Discussion

a,b. The City of Morgan Hill is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation. The USEPA has not yet approved a request for redesignation of the SFBAAB; therefore, the SFBAAB remains in nonattainment for 24-hour $PM_{2.5}$.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure

continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. For development projects, BAAQMD establishes significance thresholds for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_X), as well as for PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr). The thresholds are listed in Table 2. Thus, by exceeding the BAAQMD's mass emission thresholds for construction and operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 2
BAAQMD Thresholds of Significance

Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NOx	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

Particulate matter can be split into two categories: fugitive and exhaust. The BAAQMD thresholds of significance for exhaust are presented in Table 2. It should be noted that BAAQMD does not maintain quantitative thresholds for fugitive emissions of PM_{10} or $PM_{2.5}$, rather, BAAQMD requires all projects within the district's jurisdiction to implement Basic Construction Mitigation Measures (BCMMs) related to dust suppression.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2020.4.0 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, compliance with the 2019 California Building Standards Code (CBSC), etc. Where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project's modeling assumes the following project and/or site-specific information:

- Construction would begin in July 2023 and occur over approximately two years;
- During the grading phase, approximately 3,926 cubic yards of material would be exported from the project site;
- Trip generation rates were adjusted to be consistent with the assumptions included in the Trip Generation and Operations Analysis prepared by Hexagon;
- The proposed residential units would not include fireplaces;
- The project site is located within 0.3-mile of the nearest transit stop; and
- The project would include a 20 percent indoor and 10 percent outdoor water conservation strategy; and

- The project would comply with all applicable provisions of the 2019 California CBSC.[6]

The proposed project's estimated emissions associated with construction and operations and the project's contribution to cumulative air quality conditions are provided below. All CalEEMod results are included as Appendix A to this IS/MND.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's maximum unmitigated construction emissions would be below the applicable thresholds of significance.

Table 3
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	3.88	54	**NO**
NO_X	27.56	54	**NO**
PM_{10}*	1.27	82	**NO**
$PM_{2.5}$*	1.17	54	**NO**

Note:
* Denotes emissions from exhaust only. BAAQMD has not yet adopted PM thresholds for fugitive emissions.

Source: CalEEMod, July 2022 (see Appendix A).

All projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's BCMMs, which would be required by the City as conditions of approval:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

[6] It is noted that the 2022 California CBSC will go into effect on January 1, 2023, which is prior to when construction of the proposed project would be initiated. However, 2022 California CBSC would include more stringent requirements as compared to the 2019 CBSC. As a result, the modeling included herein provides a conservative analysis.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's BCMMs listed above for the project's construction activities would help to minimize construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, project construction would not result in a significant air quality impact.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 4. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance. As such, the proposed project would not result in a significant air quality impact during operations.

Table 4
Maximum Unmitigated Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	4.13	0.61	54	10	**NO**
NO_X	2.59	0.43	54	10	**NO**
PM_{10}*	0.88	0.02	82	15	**NO**
$PM_{2.5}$*	0.88	0.02	54	10	**NO**

Note:
* Denotes emissions from exhaust only. BAAQMD has not yet adopted PM thresholds for fugitive emissions.

Source: CalEEMod, July 2022 (see Appendix A).

Cumulative Emissions

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 2 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 2, the proposed project's

emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 Clean Air Plan. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below the applicable thresholds of significance, the proposed project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Because the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, a ***less-than-significant*** impact would occur.

c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. Within the project vicinity, the nearest sensitive receptors include the single-family residences to the north, south and west across the UPRR tracks, with the closest residence located approximately 144 feet north of the site.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and TACs, as well as regional effects of emissions of criteria pollutants, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO emissions are particularly related to traffic levels.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

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

The City's General Plan serves to provide traffic forecasts to the Santa Clara Valley Transportation Authority (VTA). While the proposed project would include a General Plan Amendment and Rezone, because the site is currently designated for the development of urban uses, traffic associated with the proposed project would be similar to traffic associated with buildout of the site under the existing land use and zoning designations. As such, traffic associated with development of the site has generally been anticipated, and the project would be consistent with the VTA Congestion Management Program (CMP).[7] Based on traffic data provided by Hexagon Transportation Consultants, peak hour traffic volumes at the nearest major intersection near the project site are between 2,697 and 3,147. The proposed project would result in the addition of 55 net new AM peak-hour trips and 84 net new PM peak-hour trips to the roadway system under existing plus project conditions. Therefore, traffic associated with the proposed development would not increase traffic volumes at any affected intersection to more than 44,000 vehicles per hour. Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist in the project area. Therefore, based on the BAAQMD's screening criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, gas dispensing facilities, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. As noted above, the nearest existing sensitive receptor to the project site is the single-family residence that is surrounded by the project site to the west, north, and east.

As part of the *California Building Industry Association v. Bay Area Air Quality Management District* (CBIA) case, the California Supreme Court granted limited review to the question: Under what circumstances, if any, does CEQA require an analysis of how existing

[7] Santa Clara Valley Transportation Authority. *2021 Congestion Management Program Document.* December 2021.

environmental conditions will impact future residents or users (receptors) of a proposed project? In the opinion published on December 17, 2015, the Supreme Court looked closely at the language and legislative intent in CEQA, and found that CEQA does not provide "enough of a basis to suggest that the term 'environmental effects' […] is meant, as a general matter, to encompass these broader considerations associated with the health and safety of a project's future residents or users." Based on the Supreme Court opinion, it would be considered appropriate to evaluate a project's potentially significant exacerbating effects on existing environmental hazards – effects that arise because the project brings "development and people into the area affected." The Supreme Court stated that even in those specific instances where evaluation of a project's potentially significant exacerbating effects on existing environmental hazards is appropriate, the evaluation of how future residents or users could be affected by the exacerbated conditions is still compelled by the project's impact on the environment, and not the environment's impact on the project.[8]

Considering the court ruling, while the proposed project would be considered a sensitive receptor, consideration of impacts from existing TAC sources on future residents, such as the nearby train tracks, is outside of the scope of CEQA. Thus, this environmental analysis appropriately focuses on the potential for the proposed project to result in TAC emissions that could affect the existing nearby sensitive receptors.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities would result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project is estimated to be approximately two years.

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. In addition, only portions of the site would be disturbed at a time throughout the construction period, with operation of construction equipment occurring intermittently throughout the course of a day rather than continuously at any one location on the project site. Operation of construction equipment within portions of the development area would allow for the dispersal of emissions, and would ensure that construction-activity is not continuously occurring in the portions of the project site closest to existing receptors. Because construction equipment on-site would not operate for long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated

[8] Alameda County Superior Court. *California Building Industry Association v. Bay Area Air Quality Management District. A135335 and A136212*. Filed August 12, 2016.

emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a substantially extended period of time would be low.

Furthermore, the project applicant would be required to prepare, and include on all site development and grading plans, a management plan detailing strategies for control of noise, dust and vibration, and storage of hazardous materials during construction of the project. Pursuant to Section 18.76.040 (Air Contaminants) of the City's Municipal Code, the management plan must include all applicable BAAQMD rules and regulations, as well as the City's standard conditions for construction activity. The City of Morgan Hill Development Services Department would ensure that the BAAQMD's BCMMs, listed under section "a,b" above, would be noted on project construction drawings prior to issuance of a building permit or approval of improvement plans.

Criteria Pollutant Emissions

Criteria pollutant emissions have the ability to cause negative health effects. As discussed under section 'a' above, the AAQS presented are health-based standards designed to ensure safe levels of criteria pollutants that avoid specific adverse health effects. Because the SFBAAB is designated as nonattainment for State and federal eight-hour ozone and State PM_{10} standards, the BAAQMD, along with other air districts in the SFBAAB region, has adopted federal and state attainment plans to demonstrate progress towards attainment of the AAQS. Full implementation of the attainment plans would ensure that the AAQS are attained and sensitive receptors within the SFBAAB are not exposed to excess concentrations of criteria pollutants. The BAAQMD's thresholds of significance were established with consideration given to the health-based air quality standards established by the AAQS, and are designed to aid the district in implementing the applicable attainment plans to achieve attainment of the AAQS. Thus, if a project's criteria pollutant emissions exceed the BAAQMD's emission thresholds of significance, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts, thereby delaying attainment of the AAQS. Because the AAQSs are representative of safe levels that avoid specific adverse health effects, a project's hinderance of attainment of the AAQS could be considered to contribute towards regional health effects associated with the existing nonattainment status of ozone and PM standards.

However, as discussed above, the proposed project would not result in exceedance of the BAAQMD's thresholds of significance. Consequently, implementation of the proposed project would not conflict with the BAAQMD's adopted attainment plans nor would the proposed project inhibit attainment of regional AAQS. Therefore, implementation of the proposed project would not contribute towards regional health effects associated with the existing nonattainment status of ozone and PM_{10} standards.

Conclusion

Based on the above, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO, TACs, or criteria air pollutants associated with construction or operation. Therefore, the proposed project would not result in the exposure of sensitive receptors to substantial pollutant concentrations, and a ***less-than-significant*** impact would occur.

d. Emissions such as those leading to odors have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading

to odors, emission of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in sections 'a' through 'c' above. Therefore, the following discussion focuses on emissions of odors and dust.

Pursuant to the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.[9] Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on several variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantification of significant odor impacts is relatively difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses.

Construction activities often include diesel-fueled equipment and heavy-duty diesel trucks, which can create odors associated with diesel fumes, which could be found to be objectionable. However, as discussed above, construction activities would be temporary, and operation of construction equipment would be regulated and intermittent. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions, as well as any associated odors. Accordingly, substantial objectionable odors would not occur during construction activities or affect a substantial number of people.

In addition, the BAAQMD rules and regulations would act to reduce construction related dust, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, the project site would not include any exposed topsoil. Thus, project operations would not include any substantial sources of dust.

For the aforementioned reasons, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would occur.

[9] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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, and regulations or by the California Department of Fish and Wildlife or US 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 resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of 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 Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	✖	☐	☐

Discussion

The following is based primarily on a Biological Assessment prepared for the proposed project by Johnson Marigot Consulting, LLC (JMC) (see Appendix B).[10]

a. The project site is currently flat to gently sloping undeveloped grassland consisting of non-native annual vegetation and seasonal wetlands with scattered native and non-native trees and shrubs, particularly along the edges of the property. The site is regularly disked and mowed for fuel reduction. Three depressional wetlands, three converging wetland drainage ditches, one stormwater detention basin, and a small patch of cattails associated with the stormwater detention, are located in the project area (see Figure 7).

As noted in the Biological Assessment, a number of native plants and animals have been formally designated as threatened or endangered under State and federal endangered species legislation. Others have been designated as "candidates" for such listing or designated as "species of special concern" by the California Department of Fish and Wildlife (CDFW). The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered. Collectively, such plant and wildlife species are referred to as "special-status species." For the purpose of this analysis, special-status species are defined to include the following:

[10] Johnson Marigot Consulting, LLC. *Preliminary Biological Assessment, 18545-18565 Monterey Road, Morgan Hill, California.* April 1, 2022.

Figure 7
Land Cover Types



- Plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the State and federal Endangered Species Acts;
- CDFW Species of Special Concern;
- CDFW Fully-Protected Species; and
- Plant species on CNPS Lists 1 and 2.

In addition, nesting birds and raptors are protected under the Federal Migratory Bird Treaty Act (MBTA), which prohibits killing, possessing, or trading of migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA covers take of whole birds, parts of birds, and bird nests and eggs.

The project site is located within the boundaries of the Santa Clara Valley Habitat Plan (SCVHP), which provides take authorization for 18 listed and non-listed species (i.e., covered species). In addition, the SCVHP includes conservation measures to protect the species covered by the SCVHP, as well as a conservation strategy designed to mitigate impacts on covered species and contribute to the recovery of the species in the study area. Compliance with the SCVHP is discussed under question 'f' below.

As part of the Biological Assessment, a literary review was conducted to evaluate the potential for special-status species to occur within the project area. In addition to a literature review, the CDFW California Natural Diversity Database (CNDDB) and the CNPS Inventory of Rare, Threatened, and Endangered Plants of California were queried for occurrences of special-status species in the vicinity of the site. Furthermore, a reconnaissance level survey of the site was conducted on September 17, 2021. Special-status plant or wildlife species were not found during the site survey. However, two bird species identified by the CNDDB both have the potential to nest at the project site. Additionally, although not documented by the CNDDB, the potential exists for two additional special-status bird species to occur on site.

Special-Status Plant Species

According to the CNDDB, a total of 15 special-status plant species have been documented within the project region. Of the 15 special-status plant species identified in the Biological Assessment, 11 require, or primarily occur, on serpentine soils, which do not exist on the site. The remaining four species grow in coastal sage scrub and foothill woodland chaparral, which is not present on the site. Given the lack of suitable on-site habitat, the aforementioned species are not anticipated to occur on the project site. In addition, the site has experienced ongoing disturbance such as disking and mowing. Therefore, development of the proposed project would not result in substantial adverse effects to special-status plant species.

Special-Status Wildlife Species

According to the Biological Assessment, records for 11 special-status wildlife species are documented within three miles of the project site. Such species include: Crotch's bumblebee (*Bombus crotchii),* western bumblebee (*Bombus occidentalis*), the Central California Distinct Population Segment (DPS) of California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana draytonii*), western pond turtle (*Emys marmorata*), coast horned lizard (*Phrynosoma coronatum*), Opler's longhorn moth (*Adela oplerella),* Bay-checkerspot butterfly (*Euphydryas editha bayensis*), American badger (*Taxidea taxus*), San Francisco dusky-footed woodrat *(Neotoma fuscipes annectens*),

burrowing owl (*Athene cunicularia*), and white-tailed kite (*Elanus leucurus*). The September 2021 survey did not identify any evidence of special-status wildlife species on-site.

In addition, although not documented in the CNDDB search, various other nesting and migratory birds protected by the MBTA have been documented within the region including Swainson's hawk and tricolored blackbird. The potential for such species to be impacted by the proposed project is discussed further below.

Crotch Bumblebee and Western Bumblebee

Two species of bumble bees that may occur regionally have been petitioned to be added to the California Endangered Species Act and are currently under consideration by CDFW, including the crotch bumble bee and the western bumble bee. Neither species currently has State listing status, but both are included in this analysis in the event that the listing request is granted. Both species have colonial nests in underground cavities and are unlikely to occur on the site due to current management practices (routine and regular disking). Disking has the effect of removing potential flowering plants required as a food source to these species, as well as regularly disturbing upper horizons of soils (i.e., not conducive to supporting underground cavities). A historic (1940) record of western bumble bee is recorded in the CNDDB within the vicinity of Morgan Hill, and both species may occur regionally. However, the site does not represent habitat for either species due to lack of underground nesting opportunities and lack of flowering plants. Therefore, development of the site is not expected to result in any effect to either bee species and further survey is not necessary.

Special-Status Amphibians and Reptiles

Three of the 11 special-status species require specialized habitats that occur within the site, including the presence of ponding water that occurs periodically or seasonally both within the project site and across Monterey Road, at the Butterfield Retention Basin. Such species include California tiger salamander, California red-legged frog, and western pond turtle. However, the features are unlikely to provide habitat for California tiger salamander because the species is isolated from known populations of the species and habitat corridors are not present for existing populations. The same is true for California red-legged frog and western pond turtle, both of which require ponded water for survival. Known populations of the California red-legged frog and western pond turtle are currently restricted to the undeveloped foothills surrounding the City of Morgan Hill, and the project area is isolated from both species populations by dense urban development. Therefore, development of the project site is not expected to result in any effect to California tiger salamander, California red-legged frog, or western pond turtle.

A historic record (1894) for the coast horned lizard, now referred to as Blainville's horned lizard was documented within the vicinity of the City; however, the 1894 record only noted occurrence for the species within approximately nine miles of the project site, with other modern records (1994 through 2009) occurring in the undeveloped areas surrounding the City. Due to the extensive development surrounding the project site, coast horned lizard is not expected to occur on-site. Development of the project site is not expected to result in any substantial adverse effects to coast horned lizard.

Opler's Longhorn Moth and Bay Checkerspot Butterfly

Opler's longhorn moth and Bay checkerspot butterfly are found in association with serpentine soils, which the site does not contain. Therefore, development of the project site is not expected to result in any effect to Opler's longhorn moth or Bay checkerspot butterfly.

American Badger and San Francisco Dusky-Footed Woodrat

American badger and San Francisco dusky-footed woodrat are not covered under the SCVHCP but have a State ranking of vulnerable (American badger) and imperiled (San Francisco dusky-footed woodrat). During the site survey, middens for San Francisco dusky-footed woodrat were not observed; middens are usually obvious when present and consist of large collections of twigs and wood debris. Similarly, evidence of American badgers, such as burrows or dens, was not noted on the site, and the regular disking of the project site would prevent establishment of den sites and effectively reduce prey. Further, neither San Francisco dusky-footed woodrat nor American badger are likely to emigrate to the site due to lack of habitat connectivity and proximity to development. The site is completely surrounded by urban development and does not include natural corridors to existing habitat. Thus, development of the proposed project would not result in substantial adverse effects to American badger or San Francisco dusky-footed woodrat.

Burrowing Owl

Burrowing owls do not require a specific vegetation cover or soil type and typically use vacated burrows dug by small mammals as nesting habitat; however, burrowing owls are also known to use artificial burrows including pipes, culverts, and piles of concrete pieces in urban areas. The project site is located outside of the SCVHP burrowing owl fee area and is not identified in the SCVHP as "Occupied Nesting Burrowing Owl Habitat", "Potential Burrowing Owl Nesting/Overwintering Habitat Depending on Site Conditions", or "Overwintering Only Habitat".

However, according to the Biological Assessment, the project site should be considered potential nesting/overwintering habitat given that California ground squirrel burrows were found during the September 17 site visit. Such burrows represent potential nest sites for western burrowing owls. Additionally, burrowing owls have been documented within a mile of the project area. As such, should site grading occur during the nesting season for the species (February 1 through August 31), nests and nestlings potentially present on the site could be adversely affected by the proposed development, and a potentially significant impact could occur.

Nesting Migratory Birds and Raptors

According to the Biological Assessment, the existing on-site trees represent potential nesting habitat for nesting and migratory birds protected by the MBTA, such as special-status white-tailed kite, Swainson's hawk, and tricolored blackbird. White-tailed kite is a CDFW Fully-Protected Species. Swainson's hawk and tricolored blackbird are State-listed threatened species.

The closest documented occurrence for white-tailed kite is approximately 2.25 miles north of the project area. In addition to the project site representing potential nesting habitats for the aforementioned birds, the project site also represents potential foraging habitat for white-tailed kite and Swainson's hawk; however, records of Swainson's hawk were not found within a 3-mile radius. Furthermore, tricolored blackbirds may encounter nesting

habitats at the property located east of Monterey Road at the Butterfield Retention Basin and may forage at the project site. The initial survey of the site found that the southern end of the site is within 250 feet of the Butterfield Retention Basin, which represents potential nesting substrate. Therefore, the project has potential to affect white-tailed kite, Swainson's hawk, and tricolored blackbirds.

Project construction activities, including initial site grading, soil excavation, and/or tree and vegetation removal occurring during the nesting period for migratory birds (typically between February 1 to August 31) could therefore have the potential to result in nest abandonment or death of any live eggs or young, should migratory birds or their nests be present within or near the project site. In such an event, the proposed project could result in a potentially significant impact.

Conclusion

Based on the above, development of the proposed project would not result in any substantial adverse effects to special-status plants, as the disturbed nature of the site and the lack of suitable habitat precludes the likely occurrence of such species on the site. However, the site provides potential habitat for burrowing owl and nesting migratory birds and raptors protected by the MBTA, including the special-status white-tailed kite, Swainson's hawk, and tricolored blackbird. Such species could occur on the project site during construction activities associated with the proposed project. As such, the project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special status-species in local or regional plans, policies, or regulations, or by the CDFW or U.S. Fish and Wildlife Service (USFWS), and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Burrowing Owl

IV-1(a). *Consistent with Condition 15 of the Santa Clara Valley Habitat Plan, prior to any ground disturbance related to covered activities, a qualified biologist shall conduct preconstruction surveys in all suitable habitat areas as identified during habitat surveys. The purpose of the preconstruction surveys is to document the presence or absence of burrowing owls on the project site, particularly in areas within 250 feet of construction activity.*

To maximize the likelihood of detecting owls, the preconstruction survey shall last a minimum of three hours. The survey shall begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two surveys shall be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed shall be counted and their location shall be mapped.

Surveys shall conclude less than 2 calendar days prior to construction. Therefore, the project proponent must begin surveys less than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and

construction). To avoid last minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes less than 2 calendar days in advance of construction. All survey results shall be submitted to the City of Morgan Hill Development Services Department prior to the start of construction. If burrowing owls are not identified, further action is not required.

IV-1(b). *Should burrowing owls be found on the site during the breeding season (February 1 through August 31), exclusion zones, with a 250-foot radius from occupied burrows, shall be established. All development-related activities shall occur outside of the exclusion area until the young have fledged. Establishment of the exclusion area shall be determined by a qualified biologist to the satisfaction of the City of Morgan Hill Development Services Department.*

IV-1(c). *If pre-construction surveys are conducted during the non-breeding season (September 1 through January 31) and burrowing owls are observed on the site, the project proponent shall establish a 250-foot non-disturbance buffer around occupied burrows as determined by a qualified biologist. Construction activities outside of the 250-foot buffer shall be allowed. Construction activities within the non-disturbance buffer shall be allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites:*

- *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).*
- *The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.*
- *If any change in owl foraging behavior occurs as a result of construction activities, such activities shall cease within the 250-foot buffer.*
- *If the owls are gone for at least one week, the project proponent may request approval from the Habitat Agency that a qualified biologist excavate usable burrows to prevent owls from reoccupying the site. After all usable burrows are excavated, the buffer zone shall be removed, and construction may continue. Monitoring shall continue as described above for the non-breeding season as long as the burrow remains active.*

Passive relocation of owls shall not be permitted unless the positive growth trend described in Section 5.4.6 of the SCVHP is achieved and all passive relocation measures identified in the SCVHP are implemented. The project applicant may choose to obtain an exception that would allow for passive relocation, in which case an application shall be submitted to the Habitat Agency along with a passive relocation plan in accordance with Section 6.6.1, Condition 15, Exceptions to Passive Relocation Prohibition, of the

SCVHP. The Habitat Agency shall have the final authority to grant or deny the requested exception.

Nesting Migratory Birds and Raptors

IV-2. *If construction is proposed during breeding season (February 1 to August 31), a pre-construction nesting survey for raptors and other protected migratory birds shall be conducted by a qualified biologist, consistent with conditions set forth by the SCVHP, and submitted to the City of Morgan Hill Development Services Department for review no more than 14 days prior to the start of construction. Pre-construction surveys during the non-breeding season (September 1 to January 31) are not necessary for birds, including roosting raptors, as they are expected to abandon their roosts during construction. If these species are deemed absent from the area, no further mitigation is required, and construction may occur within 14 days following the survey during the early nesting season (February to May) and within 30 days following the survey during the late nesting season (June to August).*

If nesting migratory birds or raptors are detected on or adjacent to the site during the survey, a suitable construction-free buffer shall be established around all active nests. The precise dimension of the buffer (250-foot minimum for certain raptors) shall be determined by the qualified biologist at that time and may vary depending on location, topography, type of construction activity, and species. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

Swainson's Hawk and White-Tailed Kite

IV-3. *If construction activities occur between February 1 and August 31, the applicant shall conduct surveys for Swainson's hawk and white-tailed kite in accordance with the Swainson's Hawk Technical Advisory Committee 2000 guidelines (SHTAC 2000), or current guidance. Surveys shall cover a minimum of a 0.5-mile radius around the construction area. If nesting Swainson's hawks or white-tailed kites are detected, a no-disturbance buffer shall be established as determined by the qualified biologist but shall not be less than 500 feet. Buffers shall be maintained until a qualified biologist has determined that the young have fledged and are no longer reliant upon the nest or parental care for survival.*

If potential nesting trees are to be removed during construction activities, removal shall take place outside of Swainson's hawk and white-tailed kite nesting season and CDFW will develop a plan to replace known nest trees at a ratio of 3:1. Potential nest trees shall include those trees with current (at the time of the surveys) or documented historic use by Swainson's hawk or white-tailed kites for nesting. If replacement planting is implemented, monitoring shall be conducted annually for 5 years to assess the mitigation's effectiveness. The performance standard for the mitigation will be 65% survival of all replacement plantings.

Tricolored Blackbird

IV-4. *Consistent with Condition 17 of the Santa Clara Valley Habitat Plan, prior to any ground disturbance related to covered activities, a qualified biologist shall investigate whether the nearby Butterfield Retention Basin has been occupied by nesting tricolored blackbirds within the past 5 years. This shall include checking the California Natural Diversity Database, contacting local experts, and conducting a preconstruction survey in all accessible areas identified as supporting potential tricolored blackbird nesting habitat. The survey shall document the current, and to the extent possible, historical presence or absence of nesting colonies of tricolored blackbird. Surveys shall conclude no more than two calendar days prior to construction. If a tricolored blackbird nesting colony is present or has been within the past 5 years, a 250-foot buffer shall be applied from the outer edge of all hydrophytic vegetation associated with the site and the site plus buffer shall be avoided. The Wildlife Agencies shall be notified immediately of nest locations. All survey results shall be submitted to the City of Morgan Hill Development Services Department prior to the start of construction. If current or recent tricolored blackbird nesting colonies are not identified, further action is not required.*

If construction takes place during the breeding season when an active colony is present, a qualified biologist shall monitor construction to ensure that the 250-foot buffer zone is enforced. If monitoring indicates that construction outside of the buffer is affecting a breeding colony, the buffer shall be increased if space allows (e.g., move staging areas farther away). If space does not allow, construction shall cease until the colony abandons the site or until the end of the breeding season, whichever occurs first. The biological monitor shall also conduct training of construction personnel on the avoidance procedures, buffer zones, and protocols in the event that tricolored blackbirds fly into an active construction zone (i.e., outside the buffer zone).

b,c. Wetlands, trenches, potential waters of the U.S, or other aquatic features were identified on the project site during the site visits conducted by JMC. Seasonal freshwater emergent wetlands of the U.S./State were mapped in the project area, including six separate wetlands, and cover approximately 0.52-acre of the project site. The community is distributed relatively evenly across the site. However, as previously noted, the site has been subject to ongoing disturbance associated with disking and mowing and has been leveled relatively flat.

The on-site wetlands consist of three interconnected drainage ditches with in-channel wetlands, a stormwater detention basin, three depressional wetlands, and a small wetland located at the detention basin discharge pipe. The U.S. Army Corps of Engineers (USACE) issued an Approved Jurisdictional Determination for the project site by letter on February 1, 2022, identifying only one 0.042-acre wetland as a water of the U.S. The other five wetlands were determined to be isolated wetlands and, therefore, not waters of the U.S. The Regional Water Quality Control Board (RWQCB) is expected to consider all six wetlands on the site to be waters of the State.

Furthermore, the project area derives local hydrology from direct precipitation and off-site developments. The two smaller drainage ditches and the stormwater detention basin were

constructed in 2004-2005. One of the ditches channels runoff from the eastern side of Monterey Road, and the other ditch and the detention basin were constructed in order to manage runoff from the development to the north of the project site. The two smaller ditches converge with the old drainage ditch spanning the width of the property from Monterey Road to the railroad tracks. The old drainage ditch receives hydrology from the large off-site detention basin located southeast of the project area.

The project proposal includes filling the wetlands on site, which would therefore require Clean Water Act Section 404 and Section 401 permits from USACE and the RWQCB, respectively. As such, the applicant will be required to comply with any avoidance and minimization requirements in the Clean Water Act permit requirements, as well as Conditions 3 and 12 of the SCVHP which require that projects "Maintain Hydrologic Conditions and Protect Water Quality" through compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements, and avoid and minimize effects to local waterways, wetlands, and ponds. As avoiding permanent impacts to wetlands on-site is impracticable, wetland fees will be paid to cover the costs of compensatory mitigation required by the SCVHP.

Based on the above, without compliance with Clean Water Act permit requirements and SCVHP Conditions, the project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS or have a substantial adverse effect on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. Thus, a ***potentially significant*** impact would occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a less-than-significant level.

IV-5. *Prior to initiation of grading, excavation, or other construction activities, the applicant shall obtain permit authorization, as determined by USACE, to fill waters of the U.S. under Section 404 of the federal Clean Water Act (Section 404 Permit) from USACE. The Section 404 Permit application shall include an assessment of directly impacted, avoided, and preserved acreages of waters of the U.S. Mitigation measures may be developed as part of the Section 404 Permit to ensure the avoidance and minimize impacts to waters of the U.S.. Final mitigation requirements shall be developed in consultation with USACE. A copy of the Section 404 Permit issued for the project shall be submitted to the City's Development Services Department prior to commencement of grading, excavation, or other construction activities.*

IV-6. *Prior to initiation of grading, excavation or other construction activities, the project applicant shall submit to the San Francisco Bay Regional Water Quality Control Board an application for Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. The project applicant shall be responsible for conducting all project activities in accordance with the permit provisions outlined in the applicable permit. A copy of the Water Quality Certification or waiver issued*

for the project shall be submitted to the City's Development Services Department prior to commencement of grading, excavation, or other construction activities.

IV-7. Prior to the commencement of construction, the project applicant shall pay all applicable fees to the SCVHP to address permanent impacts to the project site and the 0.52-acre of onsite wetlands. In addition, the project shall comply with standards set forth by Condition No. 3 and Condition No. 12 of the SCVHP. Proof of payment of applicable fees shall be submitted and reviewed by the City's Development Services Department.

d. Movement corridors or landscape linkages are usually linear habitats that connect two or more habitat patches, providing assumed benefits to the species by reducing inbreeding depression and increasing the potential for recolonization of habitat patches. The project site is bounded on the west by Monterey Road, to the south by existing residential development, and to the east by a railroad corridor. West of Monterey Road is residential development. The site is not crossed by any waterways or greenways, or any open space or preserve. Due to the developed nature of the surrounding area, as well as physical barriers to wildlife movement along the project boundaries, the project site does not support any major wildlife movement corridors. As such, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors or impede the use of wildlife nursery sites. Thus, a ***less-than-significant*** impact would occur.

e. Section 12.32.030 (Permit-Required) of the City of Morgan Hill's Municipal Code requires the approval of a tree removal permit prior to the removal of any Ordinance Sized Trees, defined as a non-indigenous tree with a circumference greater than 40 inches (approximately 12.7-inch diameter), or any indigenous tree with circumference greater than 18 inches (approximately 5.7 inches diameter) measured at 4.5 feet vertically above the ground or immediately below the lowest branch. According to the City's Code, non-indigenous tree species in residential zones and orchards (including individual fruit trees) are not considered Ordinance Sized Trees. Indigenous tree means any tree native to the Morgan Hill region, such as oaks (all types), Sycamore, California Bay, Madrone, or Alder.

An Arborist Report was prepared for the proposed project by Monarch Consulting Arborists (see Appendix B).[11] Based on the Arborist Report, a total of 13 trees are located on the project site. Five trees were determined to be in good condition, six were determined to be in fair condition, and two were determined to be in poor condition. In addition, six trees were determined to have fair suitability for preservation and seven were determined to have poor suitability for preservation. Trees poorly suited for preservation included invasive species such as the acacia, willow and cottonwood, along with trees that were determined to have poor structure or health such as the black oak.

According to the Arborist Report, eight trees would be highly impacted by the proposed project and would require removal, as shown in Table 5. The remaining five trees, located at the top or on the slope adjacent to Monterey Road, would not require removal. Nonetheless, the City would require replacement plantings for all eight trees proposed for removal, and the remaining on-site trees would require protection.

[11] Monarch Consulting Arborists. *Tree Inventory, Assessment, and Protection: Morgan Hill APN - 764-10-013, APN - 764-10-015 (Monterey Road).* October 17, 2022.

Table 5
Trees Proposed for Removal

Tree Species	I.D. Number	Trunk Diameter (Inches)	Height (Feet)	Canopy Diameter (Feet)	Condition	Suitability
Valley Oak *(Quercus lobata)*	401	5, 5	10	10	Good	Fair
Black Oak *(Quercus kelloggii)*	402	13, 13, 11, 16, 18	45	35	Fair	Poor
London plane *(Platanus x hispanica)*	403	10	25	10	Good	Fair
Willow *(Salix alba)*	409	10, 8, 8, 8, 6, 6	40	25	Fair	Poor
Cottonwood *(Populus trichocarpa)*	410	9	45	25	Fair	Poor
Silver Acacia *(Acacia dealbata)*	411	7, 8, 5, 5, 5, 5, 5, 5, 3, 3	35	25	Poor	Poor
Silver Acacia *(Acacia dealbata)*	412	6, 6, 5	35	25	Fair	Poor
Silver Acacia *(Acacia dealbata)*	413	5, 7	35	25	Fair	Poor

Source: Monarch Consulting Arborists, 2022. (Appendix B).

Therefore, the proposed project could have a ***potentially significant*** impact related to conflicting with local policies or ordinances protecting biological resources, particularly related to Chapter 12.32 (Restrictions on Removal of Significant Trees) of the City's Municipal Code.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

IV-8. *The project applicant shall obtain a tree removal permit prior to the removal of any Ordinance Sized Trees as defined by the City. The project applicant shall mitigate for the removal of the Ordinance Sized Trees located within the project site, as identified in the Arborist Report prepared for the proposed project, by providing an on-site replacement planting at a minimum 1:1 ratio with 15-gallon minimum size trees.*

For the Ordinance Sized Trees to be preserved as part of the project, pursuant to the Arborist Report prepared for the proposed project by

Monarch Consulting Arborists, the project applicant shall implement Tree Preservation Recommendations, including, but not limited to, the following:

- *Include tree identification numbers, protection fence locations, and preservation and guidelines on all the project plans, or alternatively create a separate plan sheet that includes all tree protection measures labeled "T-1 Tree Protection Plan;"*
- *Place a protection fence around the trees to be retained at a radius of eight times the diameter at breast height (DBH);*
- *Install temporary irrigation or soaker hoses in the Tree Protection Zones (TPZs);*
- *Monitor watering times or amounts to ensure adequate soil saturation;*
- *All tree maintenance and care shall be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree maintenance and care shall be specified in writing according to American National Standard for Tree Care Operations: Tree, Shrub and Other Woody Plant Management: Standard Practices parts 1 through 10 and adhere to ANSI Z133.1 safety standards and local regulations. All maintenance is to be performed according to ISA Best Management Practices;*
- *Implement all general tree protection guidelines included in Appendix D of the Arborist Report, including recommendations for arborist assistance while working under trees, trenching, or excavation within a tree's drip line or designated TPZ/Critical Root Zone (CRZ);*
- *Provide a copy of the Arborist Report to all contractors and project managers, including the architect, civil engineer, and landscape designer or architect; and*
- *Arrange a pre-construction meeting with the project arborist or landscape architect to verify tree protection is in place, with the correct materials, and at the proper distances.*

The above measures shall be included in the notes on construction drawings, subject to review and approval by the City of Morgan Hill Development Services Department, prior to initiation of construction.

f. As noted above, the project site is located within the boundaries of the SCVHP permit area. The SCVHP was developed through a partnership between Santa Clara County, the cities of San José, Morgan Hill, and Gilroy, the Santa Clara Valley Water District (SCVWD), the Santa Clara VTA, the USFWS, and the CDFW. The SCVHP is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth in approximately 500,000 acres of southern Santa Clara County. The SCVHP provides take authorization for 18 covered species and includes conservation measures to protect the species covered by the SCVHP, as well as a conservation strategy designed to mitigate impacts on covered species and contribute to the recovery of the species in the study area. According to the SCVHP, the project site is designated as a "Grain, Row-crop, Hay and Pasture, Disked / Short-term Fallowed" land cover type.

Compliance with the SCVHP requires payment of fees according to the Fee Zone designation of the property, payment of nitrogen deposition fees related to the number of anticipated car trips resulting from the development, and any surcharge fees that are required based on site-specific impacts to sensitive habitats or sensitive species. The project site is within Fee Zone B (Agricultural and Valley Floor Lands). As such, the proposed project would be subject to Zone B fees, which are currently $16,452 per acre (2022-2023 rates). In addition, the project would be subject to nitrogen deposition fees, which, as of 2022, are $5.85 for each new vehicle trip. For any temporary impacts, all the same fees are applied, but at a fraction of the total cost, depending on how long the project expects the temporary impact to last.

In addition to fees, the proposed project would be required to comply with applicable conditions of the SCVHP. Compliance with such conditions would be ensured with implementation of Mitigation Measures IV-1 (a) through IV-5 above. However, should the proposed project not fulfill payment of necessary fees, the project could conflict with the SCVHP. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

IV-9. *Prior to issuance of a grading permit for the proposed project the owner or designee shall pay the Santa Clara Valley Habitat Plan per-acre fee in effect for the appropriate fee zone of the project site, as determined by the Santa Clara Valley Habitat Agency, in compliance with Section 18.132.050 of the Morgan Hill Municipal Code.*

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 a unique archaeological resource pursuant to Section 15064.5?	☐	☐	✖	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	☐	☐	✖	☐

Discussion

a-c. The project site does not currently contain any structures and has been subject to past disturbance, including regular disking and mowing associated with fuel reduction. Additionally, the site is surrounded by existing residential, commercial, and planned-unit development. Furthermore, archival research by Archaeological Resource Management (ARM) revealed that previously recorded archaeological resources are not located within the proposed project area. However, three previously recorded resources are located within a one-quarter mile radius of the project site and thus, the Northwest Information Center of the California Historic Resources Information System (CHRIS) noted that the property has potential to contain previously unrecorded archaeological resources. In the event that such resources are unearthed during ground disturbing activities (i.e., any activity that exposes, works or redistributes soil, including but not limited to excavating, filling, stockpiling, grading, grubbing, or clearing), the following City standard conditions of approval related to the protection of historical and archaeological resources would be implemented, consistent with Section 18.60.090 of the City's Municipal Code:

A. The developer shall enter into written contracts with an archaeologist and the Tamien Nation Tribe, and pay all fees associated with the activities required by this condition. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply:

1. Prior to start of grading or earthmoving activity (includes demolition and moving of heavy equipment on site) on the "first day of construction", the archaeologist and Tamien Nation Tribal Monitor shall hold a preconstruction meeting for the purposes of "cultural sensitivity training" with the general contractor and subcontractors.

2. An archaeologist and a Tamien Nation Tribal Monitor shall be present on-site to monitor all ground disturbing activities and an archaeologist shall be on-call. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:

    a) Work at the location of the find will halt immediately within fifty feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine whether it qualifies as a unique archaeological resource as defined by this chapter.

b) If the find is determined not to be a Unique Archaeological Resource, construction can continue. The archaeologist will prepare a brief informal memo/letter in collaboration with a tribal representative that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find;

c) If the find appears significant and to qualify as a unique archaeological resource, the archaeologist will determine if the resource can be avoided and will detail avoidance procedures in a formal memo/letter; and

d) If the resource cannot be avoided, the archaeologist in collaboration with a tribal representative shall develop within forty-eight hours an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the Development Services Director. The action plan shall be in conformance with California Public Resources Code 21083.2.

3. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans,

    a) If human remains are encountered, they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need-to-know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.
    b) Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.
    c) Surgical mask should also be worn to prevent exposure to pathogens that may be associated with the remains.

4. In the event that known or suspected Native American remains are encountered, or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, ground stone mortars and pestles), culturally altered ash stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials and historic structure remains such as stone lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.

5. An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time or discovery, by the monitoring archaeologist and tribal representative (typically twenty-five to fifty feet for single burial or archaeological find).

6. The discovery locale shall be secured (e.g., 24-hour surveillance) as directed by the City or County if considered prudent to avoid further disturbances.

7. The Contractor Foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:

    - The City of Morgan Hill Development Services Director (408) 779-7247
    - The Contractor's Point(s) of Contact
    - The Coroner of the County of Santa Clara (if human remains found) (408) 793-1900
    - The Native American Heritage Commission (NAHC) in Sacramento (916) 653-4082
    - The Amah Mutsun Tribal Band (916) 481-5785 (H) or (916) 743-5833 (C)
    - The Tamien Nation (707) 295-4011 (office) and (925) 336-5359 (THPO)

8. The Coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American the Coroner has 24 hours to notify the NAHC.

9. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD). (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)

10. Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.

11. Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's Development Services Director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the appropriate tribe may be considered and carried out.

12. If the MLD recommendation is rejected by the City of Morgan Hill the parties will attempt to mediate the disagreement with the NAHC. If mediation fails then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Compliance with the above standard conditions of approval would ensure that construction of the proposed project would result in ***a less-than-significant*** impact related to historical resources and unique archeological resources, as well as the disturbance of human remains.

VI. ENERGY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	✖	☐

Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the California Green Building Standards Code and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the CBSC, which became effective with the rest of the CBSC on January 1, 2020. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies;
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and
- For some single-family and low-rise residential development developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, including those developments that are subject to substantial shading, rendering the use of on-site solar photovoltaic systems infeasible, are exempted from the foregoing requirement.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy-efficiency measures from the 2016 Building Energy Efficiency Standards. The 2019 Building Energy Efficiency Standards are in effect for building permit applications submitted after January 1, 2020.

The 2019 standards provide for additional efficiency improvements beyond the current 2016 standards. Non-residential buildings built in compliance with the 2019 standards are anticipated to use approximately 30 percent less energy compared to the 2016 standards, primarily due to lighting upgrades.[12]

For residential buildings, compliance with the 2019 standards will use approximately seven percent less energy due to energy efficiency measures compared to homes built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use approximately 53 percent less energy than those under the 2016 standards.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated by the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

The CARB has recently prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),[13] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal

[12] California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.
[13] California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The In-Use Off-Road Diesel Vehicle Regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

In response to the growing climate crisis, the City has determined that natural gas use in local buildings, which accounts for approximately one-third of the community's carbon footprint, represents the City's greatest opportunity to reduce future greenhouse gas emissions. Requiring all new buildings to be constructed without natural gas will dramatically reduce future emission growth as electricity procured by Silicon Valley Clean Energy is 100% carbon free. The City Council adopted Ordinance No. 2306 on November 6, 2019, which prohibits natural gas infrastructure in new buildings.

Following implementation of the proposed project, PG&E would provide electricity to the project site. Energy use associated with operation of the proposed project would be typical of mixed-use developments, requiring electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed multi-family homes and commercial/retail uses.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structure would consume energy efficiently through the incorporation of such features as door and window interlocks, direct digital controls for HVAC systems, and high efficiency outdoor lighting. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the State's Renewable Portfolio Standard (RPS), which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 60 percent of total procurement by 2030. Thus, a portion of the energy consumed during project operations would originate from renewable sources.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as

discussed in Section XVII, Transportation, of this Initial Study, the project site is located within close proximity to existing residential neighborhoods, bicycle infrastructure, and transit infrastructure. The availability of such transit, bicycle, and pedestrian infrastructure in the site vicinity would help to reduce vehicle miles travelled (VMT) associated with the project and reduce fuel consumption. In addition, by providing mixed-use development on-site, the project would allow for future project residents to rely on the on-site retail uses, as opposed to travelling off-site. A portion of the workers at the proposed retail uses could reside on-site. Such internal trip capture would further reduce vehicle fuel consumption associated with the project.

Conclusion

Based on the above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

VII. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 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 18-1B 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	✖	☐

Discussion

The following discussion is based primarily on a Geotechnical Investigation prepared for the proposed project by Terrasearch, Inc. (see Appendix C).[14]

ai-iv. Active faults do not cross the site, and the site is not mapped within an Alquist-Priolo Earthquake Fault Zone.[15] Therefore, the proposed project would not be subject to risks related to fault rupture. Furthermore, the site is not located within the vicinity of any steep slopes that would be subject to landslide risk, nor within an area requiring special investigation for landslides or liquefaction hazards. According to the ABAG Resilience Program's Interactive Hazards Map, the project site is located in an area of low liquefaction susceptibility.[16]

Pursuant to the Geotechnical Investigation, because of Santa Clara County's proximity to the San Andreas Fault system, the County is considered to be one of the most seismically active regions in the U.S. The San Andreas Fault, located approximately 10.9 miles to the southwest of the project site, is the most likely fault to affect the site with potentially

[14] Terrasearch, Inc. *Geotechnical Investigation on Proposed Townhome and Commercial Development at 18605 Monterey Road, Morgan Hill, California.* October 20, 2021.

[15] Department of Conservation. *State of California, Special Studies Zones, Mt. Madonna Quadrangle, Revised Official Map.* Effective January 1, 1976.

[16] Association of Bay Area Governments. *Resilience Program.* Available at: http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility. Accessed June 2022.

destructive ground shaking. In addition, other known active faults within the region that may subject the project site to intense shaking include the Calaveras fault located 3.7 miles to the northeast, the Sargent Fault located 7.5 miles to the southwest, and the Zayanta-Vergeles Fault located 14 miles to the southwest. Based on historical evidence, the likelihood that at least one significant earthquake could produce strong ground shaking at the project site during the design life of the proposed structures is considered high.

However, the proposed project would be subject to all applicable regulations within the CBSC and Chapter 15.08 (Building Code) of the City's Municipal Code, which provide standards to protect property and public safety by regulating the design and construction of foundations, building frames, and other building elements. It is also noted that the site is relatively flat and landslides would not pose a hazard to on-site structures or future residents. Therefore, a ***less-than-significant*** impact would occur related to exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides.

b. Development of the proposed project site would cause ground disturbance of mostly topsoil related to construction activity. The ground disturbance would be limited to the areas proposed for grading and excavation, including building pads; curb, gutter, and sidewalk improvement areas; and drainage, sewer, and water infrastructure alignments. After grading and excavation and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

As noted in Section X, Hydrology and Water Quality, of this IS/MND, stormwater runoff associated with the site would be required to comply with the City's Stormwater Management Program (SWMP) standards. As such, the project would not significantly increase stormwater flows into the existing system. The final drainage system design for the project will be subject to review and approval by the City of Morgan Hill Engineering Land Development Division, who will confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site, 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.

Furthermore, new development within the City that disturbs one or more acres of land is required to comply with the NPDES Construction General Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP) incorporating best management practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The proposed project would disturb approximately 3.82 acres and, thus, would be subject to such requirements. In addition, pursuant to Chapter 13.30 (Urban Storm Water Quality Management and Discharge Control) of the City's Municipal Code, the project applicant would be required to submit a sediment and erosion control plan to the City of Morgan Hill, Engineering and Land Development Division, prior to the approval of improvement plans and issuance of building permits. The plan(s) would be required to be acceptable and conform to City standards to prevent significant sediment and soil erosion during construction and include the standards and guidelines found in the

California Stormwater Quality Association, Stormwater Best Management Practice Handbook.

Based on the above, the proposed project would not result in substantial soil erosion or the loss of topsoil. Thus, based on the above, a ***less-than-significant*** impact would occur.

c,d. The proposed project's potential effects related to liquefaction, landslides, lateral spreading, subsidence/settlement, and other unstable soil conditions are discussed in detail below.

Liquefaction

Research and historical data indicate that soil liquefaction generally occurs in saturated, loose granular soil during or after strong seismic ground shaking and is typified by a loss of shear strength in the affected soil layer, thereby causing the soil to flow as a liquid. Typically, liquefaction potential increases with increased duration and magnitude of cyclic loading. However, because of the higher intergranular pressure of the soil at greater depths, the potential for liquefaction is generally limited to the upper 40 feet of the soil. Potential hazards associated with soil liquefaction below or near a structure include loss of foundation support, lateral spreading, sand boils, and areal and differential settlement.

As indicated in the MTC/ABAG Hazard Viewer Map, the project site is located in a Low Earthquake Liquefaction Susceptibility zone. Furthermore, the soil types, groundwater level, and blow counts encountered in the subsurface field investigation have indicated that the liquefaction potential on the project site is considered very low, even if groundwater should rise to an unprecedented level. Thus, the proposed project would not be subject to substantial liquefaction risk.

Lateral Spreading

Lateral spreading is lateral ground movement that occurs as a result of liquefaction, whereby the soils ride atop the liquefied layer of soil. Lateral spreading can occur on relatively flat sites with slopes less than two percent under certain circumstances, generally when the liquefied layer is in relatively close proximity to an open, free slope face such as the bank of a creek channel. Lateral spreading can cause surficial ground tension cracking (i.e., lurch cracking) and settlement. As discussed above, subsurface soil conditions render the potential for liquefaction to occur at the project site to be low, and open, free slopes are not located in close proximity to the project site; therefore, low potential for lateral spreading occurs at the project site.

Landslides

Seismically induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The topography of the project site is relatively flat with an elevation of approximately 105 meters AMSL. Pursuant to the California Earthquake Hazards Zone Application, the project site is not located within a designated seismic hazard zone for landslides.[17] Thus, the proposed project would not be subject to substantial landslide risks.

[17] Association of Bay Area Governments. *Resilience Program*. Available at: https://abag.ca.gov/our-work/resilience. Accessed June 2022.

Subsidence/Settlement

Subsidence is the settlement of soils of very low density generally from either oxidation of organic material, or desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. Given that the proposed project would comply with the CBSC, the potential for subsidence to pose a risk to the proposed development is relatively low. Dynamic compaction, or settlement, is a phenomenon where loose, relatively clean, near-surface sandy soil located above the water table is densified from vibratory loading, typically from strong seismic shaking or vibratory equipment. Test borings indicated that the site near surface soils generally consist of firm to hard, silt, clay, sand, and gravel. Heavy gravel was also encountered at a depth of 28.5 feet in Boring 1. As the most prominent geotechnical consideration on the project site is the probability of seismic shaking during the project's design life, dynamic settlement would not pose a significant constraint on the proposed project. Furthermore, the General Plan EIR concludes that impacts related to subsidence/settlement would be reduced to a less-than-significant level with compliance with the CBSC, the Morgan Hill General Plan, and the Municipal Code.

Expansive Soils

Expansive soils are those possessing clay particles that react to moisture changes by shrinking or swelling. Expansive soils can also consist of silty to sandy clay. If structures are underlain by expansive soils, foundation systems must be capable of tolerating or resisting any potentially damaging soil movements and building foundation areas must be properly drained. According to the United States Department of Agricultural (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the project site has a shrink-swell rating of 0.62, indicating that the soil type found on-site (San Ysidro loam), has features that are somewhat limited and has features that are moderately favorable for the specified use of the construction of dwellings without basements. As listed in the Web Soil Survey, limitations can be overcome or minimized by special planning, design, or instillation. However, according to the Geotechnical Investigation provided by Terrasearch, soil expansivity characteristics by means of plasticity tests on select soil samples, indicated that the surficial clay soil found on-site has a low propensity to expand when exposed to increases in moisture content. Therefore, the potential on-site impacts related to expansive soils and direct or indirect risks to life or property would be less-than-significant.

Other Unstable Soil Conditions

Undocumented fill soils and debris have the potential to be encountered excavation and construction on-site. Should the presence of non-engineered fill be encountered, Terrasearch recommends removal and scarification and compaction of the top eight inches of exposed native ground.

Conclusion

Based on the above, the proposed project would not be subject to substantial risks related to liquefaction, landslides, lateral spreading, and expansive soils. Compliance with standard construction regulations included in the CBSC would ensure that the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving subsidence or settlement. However, undocumented fill soils within the project site would be required to be completely removed and replaced by engineered compact fill. Otherwise, geotechnical and geological issues

related to being located on a geologic unit or soil that is unstable could be ***potentially significant.***

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a less-than-significant impact.

VII-1. *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the Geotechnical Investigation prepared for the proposed project by Terrasearch, inc., in reference to additional consultation, observation and testing services provided by Quantum Geotechnical, inc., are properly incorporated and utilized in the project design.*

VII-2 *Prior to the issuance of grading permits, the project applicant shall ensure recommendations pertaining to undocumented fill are incorporated into all grading and building plans designed by a Civil and Structural Engineer and reviewed and approved by City Engineer, Chief Building Official, and a qualified Geotechnical Engineer in accordance with recommendations specified in the Geotechnical Investigation prepared by Terrasearch, inc.*

e. The proposed development would connect to existing City-maintained sewer infrastructure and would not include the use of septic tanks. Accordingly, ***no impact*** would occur related to soils incapable of adequately supporting the use of septic tanks.

f. Paleontological resources or fossils are the remains of prehistoric plant and animal life. As noted in the General Plan EIR, based on a review of the University of California's Museum of Paleontology's (UCMP) fossil locality database conducted for all of Santa Clara County, paleontological resources have not been explicitly identified as being found within Morgan Hill.[18]

As noted in the City's General Plan, occurrences of fossil resources are closely tied to the geologic units. The soil types at the project site are not considered unique geologic features and are common within the geographic area of the City. As such, development of the proposed project would not destroy a unique geologic feature. Furthermore, the project would be subject to the City's standard measures listed in Chapter V, Cultural Resources, of this IS/MND. As noted in the General Plan EIR, such measures would further lessen potential impacts to paleontological resources. Therefore, the proposed project would not result in the direct or indirect destruction of a unique paleontological resource, and a ***less-than-significant*** impact would occur.

[18] City of Morgan Hill. *2035 General Plan, City of Morgan Hill* [pg. 4.5-17]. Adopted July 2016.

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	✖	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	✖	☐	☐

Discussion

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of BAAQMD. On April 20, 2022, the BAAQMD Board of Directors held a public meeting and adopted proposed CEQA Thresholds for Evaluating the Significance of Climate Change Impacts from Land Use Projects and Plans.[19] The updated GHG thresholds therein address more recent climate change legislation, including SB 32, and provide qualitative thresholds related to Buildings and Transportation. BAAQMD is in the process of updating their CEQA Guidelines to accompany the newly adopted GHG thresholds.

Based on the modeling that Raney conducted for the proposed project, as discussed in Section III, Air Quality, of this IS/MND, construction of the project would result in total GHG emissions of 742.57 $MTCO_2e$ over the entire construction period.

The construction GHG emissions were amortized over the anticipated project lifetime and included in the annual operational GHG emissions.[20] Including the construction emissions

[19] Bay Area Air Quality Management District. *CEQA Thresholds and Guidelines Update.* Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed June 2022.

[20] South Coast Air Quality Management District. 2008. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*. Available at: http://www.aqmd.gov/docs/default-

(a one-time release that would occur only during construction of the project) with the annual operational emissions (which would occur every year over the lifetime of the entire project) represents a conservative analysis for the annual operational GHG emissions.

As shown in Table 6, the project's total unmitigated annual GHG emissions in the first year of project operation, 2025, including amortized construction-related emissions, were estimated to be approximately 771.25 $MTCO_2e$/yr.

Table 6
Unmitigated Operational GHG Emissions

Source	GHG Emissions ($MTCO_2e$/yr)
Amortized Construction GHG Emissions	24.75
Operational GHG Emissions	746.50
Area	*1.46*
Energy	*79.96*
Mobile	*645.31*
Waste	*13.21*
Water	*6.55*
Total Annual GHG Emissions	**771.25**
Source: CalEEMod, April 2022 (see Appendix A).	

As noted previously, the BAAQMD's newly adopted thresholds of significance for GHG emissions are qualitative, and the foregoing information is provided for disclosure purposes only. Potential impacts related to GHG emissions resulting from implementation of the proposed project are considered in comparison with BAAQMD's adopted thresholds of significance below.

BAAQMD Thresholds of Significance

As discussed above, on April 20, 2022, the BAAQMD Board of Directors held a public meeting and adopted proposed CEQA Thresholds for Evaluating the Significance of Climate Change Impacts from Land Use Projects and Plans. According to the new thresholds of significance, a project must either include specific project design elements (e.g., exclude use of natural gas, achieve a specific reduction in project-generated VMT below the regional average) or be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).[21]

In December of 2021, the City of Morgan Hill adopted a Climate Action Plan (CAP); however, the City's CAP does not qualify as a local GHG reduction strategy under CEQA Guidelines Section 15183.5(b). Therefore, the City has determined that the BAAQMD thresholds of significance are appropriate for the proposed project, and the following analysis focuses on the new BAAQMD GHG thresholds related to specific project design elements.

According to the BAAQMD's thresholds of significance, in order to find a less-than-significant GHG impact, projects must include, at a minimum, the following project design elements:

source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf. Accessed April 2022.

[21] Bay Area Air Quality Management District. *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April 2022.

- The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development);
- The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines;
- The project will achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted SB 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA; and
- The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

In order to be consistent with the first criterion, the proposed project is required to include all electric appliances and plumbing. As discussed previously, natural gas is prohibited in all new construction within the City, effective March 1, 2020, pursuant to City Ordinance No. 2306. However, the project is proposed to include one stub for potential future restaurant use. Therefore, the proposed project could include the use of natural gas appliances or natural gas plumbing in the future and, thus, would not comply with the first criterion.

Regarding the second criterion, as discussed in Section VI, Energy, of this Initial Study, the proposed project would comply with all applicable federal, State, and local regulations regarding energy use during both project construction and project operations. Required compliance with applicable standards and regulations ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

With respect to the third criterion, as discussed in Section XVII, Transportation, the Citywide VMT was calculated to be 24.64 per capita. Therefore, the OPR recommended impact threshold of 15 percent below the Citywide average VMT per capita equates to 20.94 VMT per capita. The project is projected to generate VMT per capita of 20.09, which would not exceed 20.94 VMT per capita. As such, the project would achieve a 15 percent reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan. In addition, the project's retail component consists of 4,016 square feet of ground-floor retail space. Because the proposed retail use would be less than 50,000 square feet in size, the proposed project may be presumed to be a local-serving facility and would therefore have a less-than-significant impact on VMT.

With respect to the fourth criterion, the proposed project would be subject to the multi-family residential requirements set forth in the CALGreen standards as well as the non-residential requirements for the commercial portion of the site. For a multi-family residential project to comply with Tier 2 CALGreen standards, as required by BAAQMD, 20 percent of the on-site parking spaces must be EV capable. EV capable spaces have the electric infrastructure necessary to support future installation of EV charging units. The site plan for the proposed project includes a total of 123 covered and uncovered residential parking spaces; therefore, 25 of the on-site spaces must be EV capable. Each of the 44 garages included on-site, as well as two of the uncovered residential parking spaces would be pre-wired to contain the necessary infrastructure for future residents to be able to install

and use EV charging stations. As such, approximately 37 percent of the proposed project's residential parking spaces have EV charging capabilities. Therefore, the proposed project would exceed the residential Tier 2 CALGreen standards. With regard to the nonresidential Tier 2 CALGreen standards, the proposed project would include 38 parking spaces dedicated to commercial use. Based on the nonresidential Tier 2 CALGreen standards, commercial development with between 26 and 50 total parking spaces is required to provide four EV capable on-site spaces. As shown on the site plan for the proposed project, commercial EV capable spaces are not proposed to be included on-site. Therefore, the proposed project would not comply with the nonresidential Tier 2 CALGreen standards.

Conclusion

Based on the above, the proposed project could be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

VIII-1. *The following requirements shall be noted on project improvement plans, subject to review and approval by the Morgan Hill Development Services Department:*

- *The proposed project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site, including in the non-residential development; and*
- *A minimum of four commercial use electric vehicle (EV) capable parking spaces shall be included on-site, consistent with the Tier 2 CALGreen standards.*

IX. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 likely 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 which 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 the risk of loss, injury or death involving wildland fires?	☐	☐	✖	☐

Discussion

a. Residential and retail uses are not typically associated with the routine transport, use, disposal, or generation of hazardous materials. Operations would likely involve use of common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount used on the site, occasional use of such products would not represent a substantial risk to public health or the environment. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact would occur.

b. The following discussion provides an analysis of potential hazards and hazardous materials associated with upset or accident conditions related to the proposed construction activities and existing on-site conditions.

Construction Activities

Construction activities associated with the proposed project would involve the use of various products such as concrete, paints, and adhesives. In addition, heavy-duty construction equipment operating on the project site would contain hydraulic fluid, diesel fuel, and other petroleum products. Small quantities of such potentially toxic substances would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and

Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials.

Existing On-Site Hazardous Conditions

A Phase I and Phase II Environmental Site Assessment (ESA) was prepared by Stantec Consulting Services, Inc. (Stantec) for the purpose of identifying potential recognized environmental conditions (RECs) associated with the project site (see Appendix D).[22] The ESA included a survey of the site and a review of historical documentation, aerial photography, regulatory agency files, and environmental sites radius reports. According to the ESA, the project site has not had a history of agricultural use and has been relatively vacant since 1917. However, Stantec observed evidence of a prior homeless encampment and two propane tanks in the southern portion of the project site as well as an open, approximately 35-gallon unlabeled steel cylinder that was observed with an unidentifiable liquid with a potential petroleum sheen. The ESA recommended the liquid be profiled and disposed of in accordance with applicable regulatory requirements. Furthermore, the proposed project borders the UPRR tracks to the west-southwest and the potential for heavy metals found in herbicides such as arsenic and lead used for weed abatement along railroad tracks may exist. A collection of soil samples for chemical analysis was therefore analyzed in the Phase II ESA to determine if pesticides or heavy metals are present at concerning levels for residential development, as discussed in further detail below.

The Phase I/II ESA did not identify any evidence of stained soil or pavement, stressed vegetation, solid waste disposal, areas of fill placement, existing water wells, septic tanks, or evidence of hazardous substances. In addition, evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) was not observed at the site. The ESA does note that the existing asphalt associated with the commercial development to the north may contain Petromat, a stress-absorbing fabric often associated with asphalt that may contain asbestos, between the asphalt layers and/or native soils. The proposed project would not involve disturbance of the existing asphalt parking lot and, thus, the Petromat and any associated asbestos material present would not be disturbed. Accordingly, any potential asbestos materials associated with such would not have the potential to become airborne and would not pose a hazard to the public or the environment. In addition, the site is, not located within the vicinity of any properties that would pose an environmental hazard to the project site.

Additional Arsenic Assessment

An Additional Arsenic Assessment was prepared for the proposed project by Stantec to evaluate the adjacent UPRR tracks. The additional assessment included further lateral and vertical delineation to determine the estimated quantity of arsenic impacted soil that may impact project development (Appendix D).[23]. The scope of investigation included hand augering and sampling of four soil borings (HA-1 through HA-4) to approximately 3-feet below ground surface (bgs) adjacent to the west-southwestern property boundary, near the railroad tracks. Soil samples were collected at 0.5 to 1.0, 1.5 to 2.0, and 2.5 to 3.0-foot depth intervals for potential analysis of lead and arsenic. A total of ten soil samples were submitted for laboratory analysis of the metal's arsenic and lead by USEPA test method 6010B.

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22 Stantec Consulting Services, Inc. *Phase I and II Environmental Site Assessment, 18545-18565 Monterey Street, Morgan Hill, California, 95037. July 8, 2021*.

23 Stantec Consulting Services, Inc. *Additional Arsenic Assessment, 18545-18565 Monterey Road, Morgan Hill, California, 95037*. July 29, 2021.

Analysis of the soil borings detected arsenic in all of the shallow soil samples at concentrations ranging from 5.9 to 28 milligrams per kilograms (mg/kg), which are above the Environmental Screening Levels (ESL) for residential use of 0.067 mg/kg, and above the California naturally occurring regional background levels of 0.6 to 11.0 mg/kg. Therefore, deeper soil samples from the 2.0 and 3.0 feet interval were further analyzed, and the presence of arsenic was observed in all samples at concentrations ranging from 6.7 to 64 mg/kg.

The elevated detections of arsenic exceed regulatory screening criteria and naturally occurring background levels and are considered a REC to the proposed project site. To determine lateral and vertical delineation, Stantec performed an additional arsenic assessment at the project site on July 13, 2021. A field technician directed the advancement of 11 borings as “step out” borings to the borings (HA-1, HA-2, and HA-3) where arsenic was detected. The locations of the borings are shown in Figure 8.

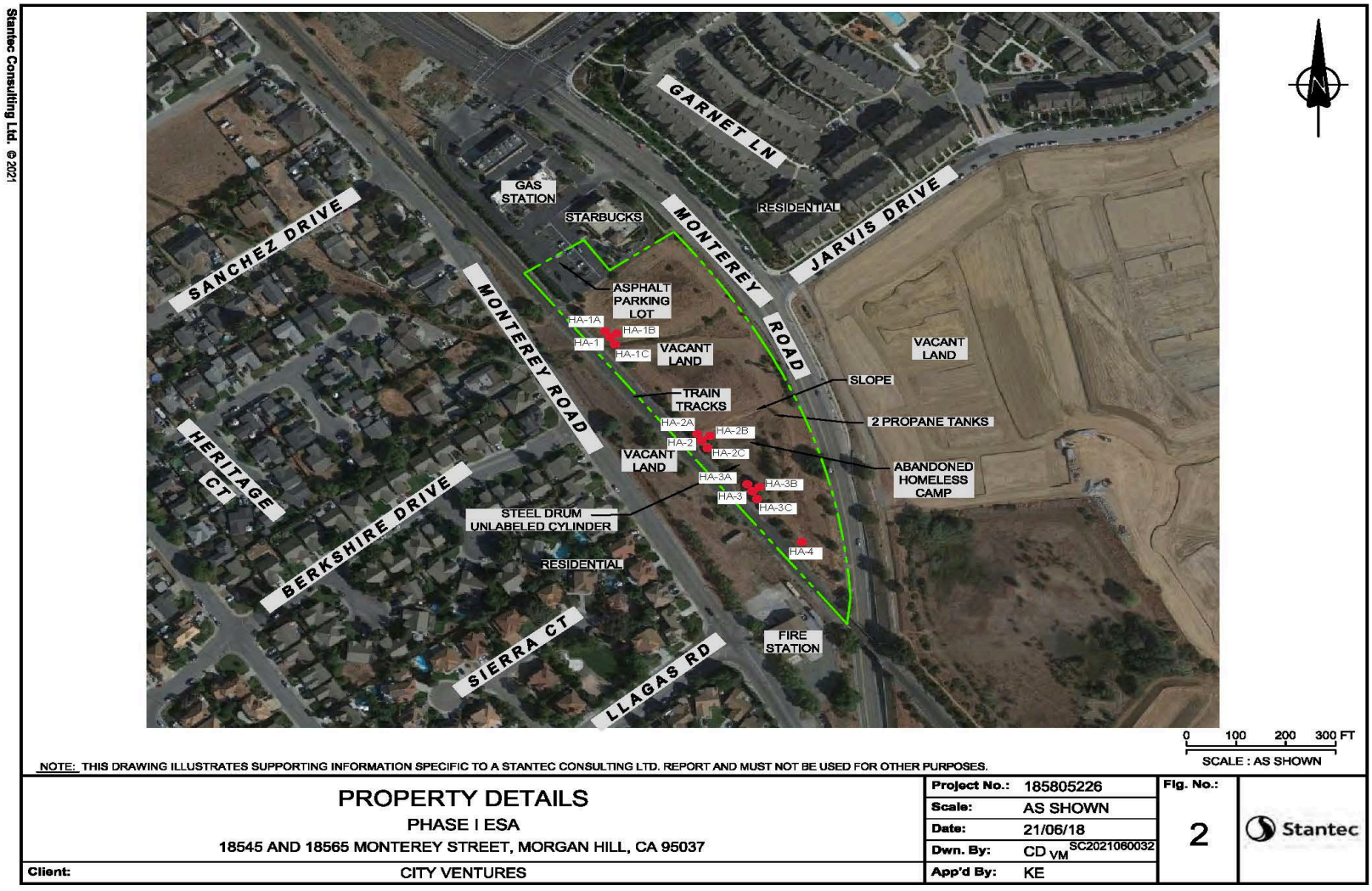
Arsenic was detected in all of the additional soil samples collected at concentrations ranging from 5.1 to 57 mg/kg. All arsenic detections are above the ESL for residential use of 0.067 mg/kg. However, many of the detected concentrations are within naturally occurring background levels of 0.6-11.0 mg/kg used by California regulatory agencies as cleanup standards.

Results from the June and July sampling analyses have shown that the shallow soil along the western property boundary adjacent to the railroad tracks is impacted with arsenic above regulatory screening levels. The arsenic-impacted soil in the vicinity of HA-1 has not been defined vertically given the concentration of 57 mg/kg reported at a depth of 5-feet bgs. However, the impact has been defined laterally to the east and south. The volume of soil with arsenic concentrations exceeding naturally occurring regional background levels at boring location HA-1 is estimated at about 50 cubic yards, based on the reasonable assumption that the vertical limits are less than six feet and the northern limits not defined to date are less than 10 feet.

The arsenic-impacted soil in the vicinity of HA-2 has been defined vertically to less than three feet in depth. Given the borings completed to date, the volume at boring location HA-2 is estimated at about 30 cubic yards, based on the reasonable assumption that the vertical limits are less than three feet and the eastern limits, which are not currently defined to date, are less than 10 feet from boring HA-2.

The arsenic-impacted soil in the vicinity of HA-3 has been defined vertically to less than four feet in depth. Given the borings completed to date, the volume at boring location HA-3 is estimated at about 25 cubic yards, based on the reasonable assumption that the vertical limits are less than four feet.

Figure 8
Sample Location Map



Based on the results of the Additional Arsenic Assessment, the estimated volume of arsenic impacted soil along the western property line in common with the rail line is estimated at 105 cubic yards of soil. Given that the lateral limits are not completely defined, a 50 percent contingency was applied to account for unknowns. As such, the estimated total soil that would require removal from the project site would be approximately 160 cubic yards.

The volume of soil is considered to be a de minimis volume and condition that would not warrant regulatory oversight. However, the soil would be required to be excavated and removed from the site, and verification soil samples would be collected from each of the three excavations at borings HA-1, HA-2, and HA-3 to confirm removal of the arsenic to the proposed cleanup level of 11.0 mg/kg. Based on the collected soil data, the soil should not be classified as a California hazardous waste.

Other Contaminated Soils

As the site has not shown historical indications for agricultural purposes, the potential for residual pesticides or heavy metals associated with prior herbicide application does not exist on-site. However, as concluded above, because metal-containing herbicides are commonly applied along rail lines for weed control, soils in the vicinity of the existing UPRR tracks along the northeastern site boundary have the potential to be contaminated by lead.

The Additional Arsenic Assessment discussed above also detected the presence of lead in all shallow soil samples collected at concentrations ranging from 1.8 to 19 mg/kg. However, these concentrations are well below the Central Coast Regional Water Quality Control Board (Central Coast RWQCB) ESL for residential use of 32 mg/kg, and also below the Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) residential screening level of 80 mg/kg for lead. Therefore, lead is not considered a hazard to the proposed project site.

Conclusion

As discussed above, Stantec considers the volume of arsenic and lead contaminated soil associated with the UPRR tracks to be a *de minimis* volume and regulatory oversight is not necessarily warranted. However, it is recommended that the soil be excavated, removed from the project site, and reanalyzed to confirm removal of arsenic to the proposed cleanup level. Furthermore, the ESA recommends the potential RECs and contaminants of concern (COCs) regarding the two propane tanks and the open, approximately 35-gallon unlabeled steel cylinder with unidentifiable liquid in the southern portion of the project site be profiled and disposed of in accordance with applicable regulatory requirements.

Without implementation of the aforementioned recommendations, the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

IX-1. *Prior to commencement of construction activities associated with the project site, the project applicant shall implement the recommendations included in the Additional Arsenic Assessment prepared by Stantec Consulting Services, Inc. for the proposed project, including the excavation and disposal of the on-site soils specified in the Assessment (i.e., associated with HA-1, HA-2, HA-3), and the collection of confirmation soil samples to be analyzed by a state-certified hazardous waste testing laboratory for arsenic, to confirm removal of the arsenic to the proposed cleanup level of 11.0 mg/kg. Verification of proper excavation, disposal, and confirmation testing shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH) and Morgan Hill Development Services Department.*

IX-2 *Prior to commencement of construction activities, the project applicant shall hire a licensed contractor to conduct additional testing of the 35-gallon unlabeled steel cylinder with an undifferentiable liquid to confirm the contents within. In the event that hazardous materials are found within the cylinder, the project applicant shall dispose of the materials and cylinder in accordance with applicable USEPA methods. The results of the testing, as well as verification of proper disposal, shall be submitted to the Morgan Hill Development Services Department.*

c. The nearest schools relative to the project site are Stratford School approximately 0.4 southwest, Voices College Bound Academy of Morgan Hill 0.74 miles northeast, and Crossroads Christian School and Shadow Mountain Baptist School approximately 0.64 miles and 0.71 miles south, respectively. As discussed under questions 'a' and 'b' above, with implementation of mitigation, development of the proposed project would not result in any significant hazards related to the use, transport, disposal, or upset of hazardous materials. Thus, ***no impact*** would result relating to the emission or handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d. The Phase I and Phase II ESA indicates that the project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, ***no impact*** would result from implementation of the proposed project.

e. The public airport nearest to the project site is the San Martin Airport, which is located approximately 5.43 miles south of the project site at 13030 Murphy Avenue. The project site is located well outside of the Airport Influence Area (AIA) identified in the South County Airport Comprehensive Land Use Plan.[24] In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not result in an airport-related safety hazard for people residing or working in the project area, and ***no impact*** would occur.

f. With the exception of two- to 15.85-inch curb and gutter improvements along Monterey Road in pursuant to City Standards A-3 and sidewalk improvements along the project frontage, implementation of the proposed project would not result in any substantial modifications to the City's existing roadway system. The project would not interfere with potential evacuation or response routes used by emergency response teams. In addition,

[24] Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

the project would not conflict with the City's Emergency Operations Plan.[25] While the proposed project would require a General Plan Amendment and Rezone, the site is currently designated for commercial use. Therefore, development of the site with urban uses has been generally anticipated by the City. Therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and a ***less-than-significant*** impact would occur.

g. The City's Wildland Urban Interface map indicates that the project site is not located in a High or Very High Fire Hazard Severity Zone (FHSZ).[26] While the residential area further to the west of the site past Del Monte Avenue is located within a Very High FHSZ, the area was classified as such in 2008, prior to buildout of the area with residential uses. In addition, buildout of the site has been previously considered by the City, and the project site is situated within a developed area. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a ***less-than-significant*** impact would occur.

[25] City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.
[26] City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	✖	☐

Discussion

a. The proposed project's potential to result in water quality impacts during construction and operations is discussed in further detail separately below.

Construction

Project construction activities such as grading, excavation, and trenching for site improvements would result in the disturbance of on-site soils. The exposed soils have the potential to affect water quality in two ways: 1) suspended soil particles and sediments transported through runoff; or 2) sediments transported as dust that eventually reach local water bodies. Spills or leaks from heavy equipment and machinery, staging areas, or building sites also have the potential to enter runoff. Typical pollutants include, but are not limited to, petroleum and heavy metals from equipment and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment or contaminants should enter receiving waters in sufficient quantities. Impacts from construction-related activities would generally be short-term and of limited duration.

Water quality degradation is regulated by the federal NPDES Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the

State Water Resources Control Board (SWRCB) through nine Regional Water Quality Control Boards (RWQCBs). As discussed in Section VII, Geology and Soils, of this IS/MND, new development within the City that disturbs one or more acres of land is required to comply with the NPDES Construction General Permit and prepare a SWPPP incorporating BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The proposed project would disturb approximately two acres and, thus, would be subject to the State NPDES Construction General Permit conditions.

The proposed project would also be subject to all regional and local water quality regulations. In order to meet water quality objectives for the region, the City of Morgan Hill, City of Gilroy, and County of Santa Clara have prepared and are implementing a Revised Regional SWMP. The SWMP incorporates the efforts of the City of Morgan Hill, the City of Gilroy, and the unincorporated portion of Santa Clara County, within the watershed of the Pajaro River and Monterey Bay, to meet the Phase II Storm Water Permit requirements for small municipal separate storm sewer systems (MS4s). The Upper Pajaro River Watershed is located within the jurisdiction of the Central Coast RWQCB. The City of Morgan Hill implements the SWMP through an extensive program that entails: 1) the establishment of SWMP goals for the City; 2) public education and outreach; 3) public involvement and participation; 4) illicit discharge control; 5) construction site stormwater runoff control; 6) post-construction stormwater management in development; and 7) pollution prevention. For construction activities, the SWMP presents BMPs that are required for the control of stormwater runoff quality during construction, including, but not limited to, covering disturbed areas with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, and permanent seeding.

Operation

After project completion, impervious surfaces on the project site could contribute incrementally to the degradation of downstream water quality during storm events. During the dry season, vehicles and other urban activities may release contaminants onto the impervious surfaces, where they would accumulate until the first storm event. During the initial storm event, or first flush, the concentrated pollutants would be transported via stormwater runoff from the site to the stormwater drainage system and eventually a downstream waterway. Typical urban pollutants that would likely be associated with the proposed project include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash. In addition, stormwater runoff could cause soil erosion if not properly addressed and provide a more lucrative means of transport for pollutants to enter the waterways.

A Preliminary Stormwater Control Plan was prepared by MH Engineering Co. to assess the proposed project's compliance with the Central Coast RWQCB's Post-Construction Stormwater Compliance Resolution and the Stormwater Management Guidance Manual for Low Impact Development & Post Construction Requirements (see Appendix E).[27] The proposed project would be managed in accordance with Resolution R3-2013-0032 issued by the Central Coast RWQCB. This resolution formally adopts post-construction stormwater management requirements for development projects in the Central Coast Region. The requirements identify 10 Watershed Management Zones (WMZs) in the covered area, and specify stormwater management requirements for each zone, depending on the size of the development project. Because the proposed project site is

[27] MH Engineering Co. *Preliminary Stormwater Control Plan for The Gates*. June 29, 2022.

located in an area classified as WMZ-1, stormwater management at the project site must include site design and runoff features to limit the amount of runoff from the project site as well as on-site water quality treatment to reduce pollutant loads in the stormwater runoff using a Low Impact Development (LID) treatment system such as biofiltration. In WMZ-1, the treatment system must retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows.

Currently, the project site contains a manmade ditch that conveys stormwater run-on flows from neighboring properties through the central portion of the site to three 24-inch corrugated metal pipe (CMP) culverts, which proceed under Monterey Road and release runoff to a 48-inch culvert. From the 48-inch culvert, flows are then discharged to an off-site detention basin to the east of Monterey Road and the UPRR tracks. In addition, run-on is also conveyed from the on-site ditch to an existing 18-inch culvert, which flows northwest along the project frontage before discharging into an existing storm drain along Monterey Road (see Figure 9). Finally, an existing storm drain line is located along the site's western boundary.

As part of the proposed project, the existing on-site drainage infrastructure would be reconfigured by backfilling the manmade ditch and extending the three 24-inch culverts and 18-inch culvert towards the west from the project site's eastern boundary to the site's western property line, which would avoid disrupting the existing conveyance of flows from neighboring properties that currently drain flows through the project site to the off-site detention basin (see Figure 10). Additionally, on-site stormwater runoff from impervious surfaces overlain as part of the project would not enter the proposed culvert extension. Instead, runoff from on-site impervious surfaces would be collected by a series of new drain inlets along the internal parking areas, drive aisles, and paved walkways. From the inlets, flows would be transported by way of new internal storm drain lines to the proposed bioretention/detention pond, which would be sited in a Private Storm Drainage Easement in the southern portion of the project site (see Figure 11).

As detailed in the Preliminary Stormwater Control Plan, the bioretention/detention pond would be used for the required retention volume storage and peak-flow management. The bioretention/detention pond would be located at the lowest point on-site to conform to the existing terrain and watersheds with a bottom elevation of 347.85 feet. The proposed bioretention/detention pond would retain stormwater until an elevation of 348.85 feet to meet the required retention volumes. Once water surface elevation rises above 348.85 feet, the bioretention pond would release below pre-development levels through a 10-inch standpipe into the City's existing storm drain system along Old Monterey Road. Pursuant to the Preliminary Stormwater Control Plan, the bioretention/detention pond would provide 11,961 cubic feet of retention volume, which would exceed the required minimum volume of 11,907 cubic feet.

In addition, pursuant to Chapter 18.140 (Post Construction Stormwater Pollution Prevention) of the City's Municipal Code, the proposed project would be subject to permanent storm water pollution prevention measures. As such, the proposed project would be required to comply with the design standards set forth in Section 18.140.040 (Design standards and selection of best management practices), and select and implement BMPs to the satisfaction of the City in accordance with the requirements contained in the most recent versions of the following documents:

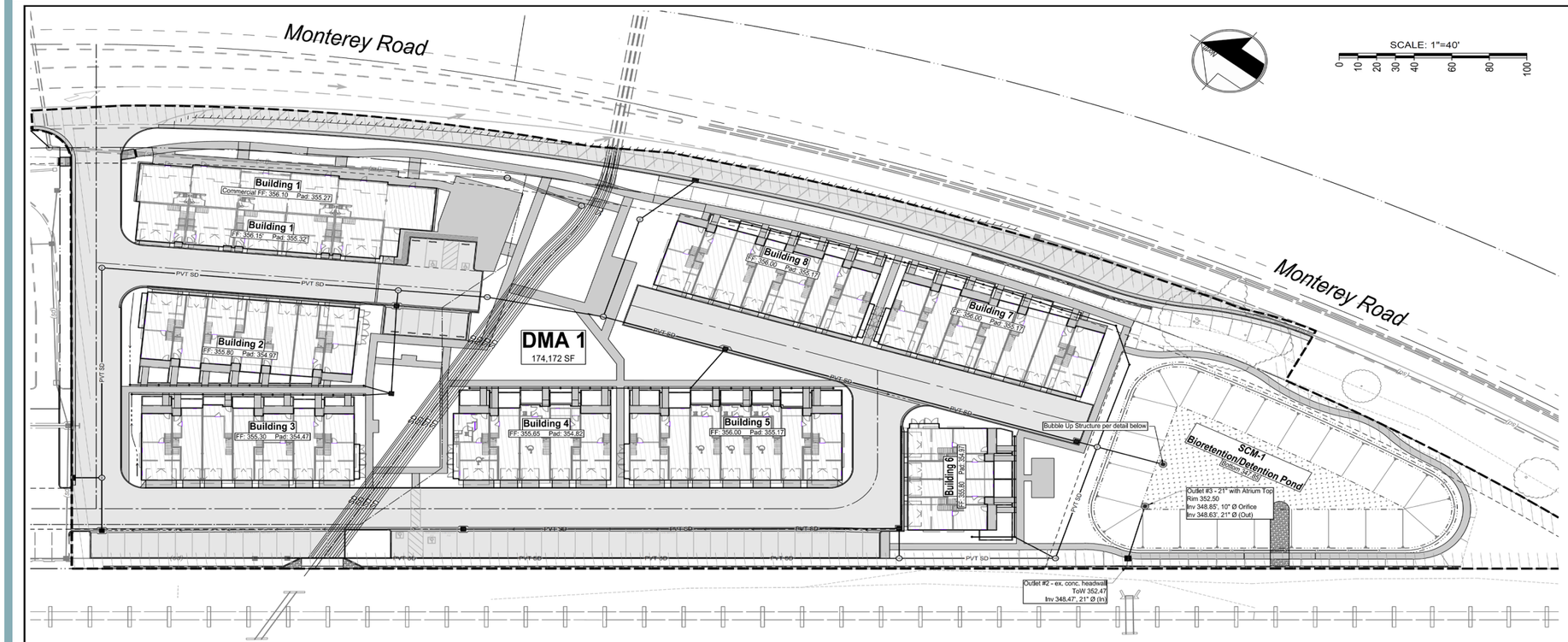
Figure 9
Existing Condition Schematic



Figure 10
Proposed Condition Schematic



Figure 11
Preliminary Stormwater Control Plan



Retention Volume Calculations

Post Construction Storm Water Management Calculations
Per Resolution No. R3-2013-0032

1.) Determination of the Retention Tributary Area
a.)

DMA	Impervious Areas								
	Pre-Development			Post-Development					
				Replaced			New		
	Roof	PCC	AC	Roof	PCC	AC	Roof	PCC	AC
1	0	0	0	0	0	0	39,429	25,836	46,760

DMA	Total Area	Pervious vs Impervious Areas						
		Pre-Development		Post-Development				
		Pervious	Impervious	Pervious	Impervious			
					Replaced	New	Total	i	C
1	174,172	174,172	0	62,148	0	112,024	112,024	0.64	0.44
Total	174,172	174,172	0	62,148	0	112,024	112,024	0.64	0.44

Atotal = drainage area (sf)
Aroofs = roof areas (sf)
Apcc-walks/parking = area of pcc walks & parking lot
Apcc -streets = area of pcc walks and curbs (sf)
AAC-streets = Street pavement areas (sf)
Apervious = Planted & Open Areas (sf)
Aimpervious = total impervious roof areas, PCC areas & AC areas (sf)
i = fraction of the tributary area that is impervious = Aimpervious / Aarea
Careaif = Area runoff coefficient=C = 0.858i3 - 0.78i2 + 0.774i + 0.04

b.)adjustments for redevelopment project

DMA	DMA Area	APA	Aother	Areplaced	Aretention
1	174,172	0	0	0	174,172
Total	174,172	0	0	0	174,172

APA = Undisturbed or Self-Retaining Planted or Open Areas
Aother = Impervious Areas that discharge to independent infiltrating Areas
Areplaced = Replaced Impervious Areas
Aretention = Retention Tributary Area = DMA Area - APA - Aother - (0.5 x Areplaced)

2.) Determination of Retention Volume
a.) retention requirement
1 = WMZ = watershed management zone per WMZ map

b.) WMZ 1 Runoff Retention Requirement = Retain 95th percentile 24-hour rainfall event
1.85 = D95 = 95th Percentile Rainfall Depth

c.) compute the runoff coefficient

DMA	DMA Area	Impervious Area	i	C
1	174,172	112,024	0.64	0.44
Total	174,172	112,024	0.64	0.44

C = 0.858i3 - 0.78i2 + 0.774i + 0.04
i = fraction of the tributary area that is impervious = Aimpervious / Aproject

d.) Project Type
Mixed Use

e.) Compute Retention Volume required

DMA	Aretention	i	C	D95	Vretention
1	174,172	0.64	0.44	1.85	11,907
Total	**174,172**	0.64	0.44	1.85	11,907

C = 0.858i3 - 0.78i2 + 0.774i + 0.04
i = fraction of the tributary area that is impervious = Aimpervious / Aproject
Vretention = Required Retention Volume = Aretention x C x (D95/12)

3.) Retention Volume Provided

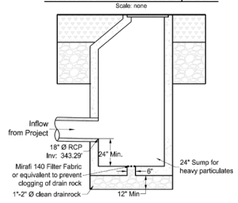
Surface Volume Calculations			
Elevation	Surface Area	Incremental Volume	Cumulative Volume
347.85	4,888.43 SF	0.00 CF	0.00 CF
348	5,096.78 SF	748.89 CF	748.89 CF
348.85	6,330.85 SF	4,856.74 CF	5,605.63 CF

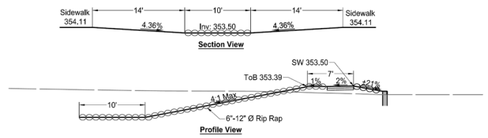
Bioretention Volume				
Material	Area	Depth	% Voids	Volume
Biomedia	4,888.43 SF	24 in.	25%	2,444.22 CF
Drainrock	4,888.43 SF	24 in.	40%	3,910.75 CF

3d.) Total Volume Provided
Total Volume: Vtotal = Vsurface + Vbioretention = 11,961 CF
11,961CF ≥ 11,907; therefore ok

LID Sizing Table									
DMA	BMP	Total DMA Area	DMA Impervious Area	i	C	Required Treatment Area	Provided Treatment Area	Requied Retention Volume	Provided Retention Volume
1	SCM 1	174,172 SF	112,024 SF	0.64	0.44	4,481 SF	4,888 SF	11,907 CF	11,961 CF

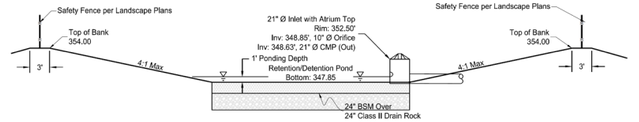
Bioretention Pond Bubble Up Detail
Scale: none





Bioretention Pond Weir Detail
Scale: none

Retention/Detention Pond Detail
Not to Scale



NO.	DESCRIPTION	DATE	BY

REVISIONS

WORK ACCEPTED: INSPECTOR:
BY: DATE:

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 PEAK AVE. MORGAN HILL, CA 95037
(408) 776-6480 FAX (408) 779-7236

DRAWN: KW DESIGN: HS HOR: 1"=40'
CHECKED: CH DATE: VERT:
APPROVED: DATE: JOB NO. 221005.1
Scott C. Creer RCE 59879 CITY ENGINEER EXP. DATE 06-30-2021

SUPERVISED BY:
SIGNATURE DATE

REGISTERED PROFESSIONAL ENGINEER
KARTINDER S. NOZA
C49717
STATE OF CALIFORNIA
FOR PLANCHECK ONLY
FOR PLANCHECK ONLY

MH engineering Co.
SUBDIVISIONS - LAND PLANNING - LAND SURVEYS
16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037
(408) 779-7381 FAX: (408) 226-5712

Preliminary Stormwater Control Plan
The Gates
MORGAN HILL CALIFORNIA

CITY FILE NO: SR2021-0020
PLAN SET: 6/28/22
DRAWING: **C.9** of 13

Preliminary Stormwater Control Plan
The Gates

1. City of Morgan Hill Stormwater Post Construction Best Management Practices Development Standards for new development and redevelopment;
2. California Storm Water Quality Association Best Management Practice Handbooks;
3. City of Gilroy, City of Morgan Hill and County of Santa Clara Regional Stormwater Management Plan (SWMP), as approved by the Central Coast Regional Water Quality Control Board; and
4. City of Morgan Hill Hydro-modification Management Plan, as approved by the Central Coast Regional Water Quality Control Board.

The final design of the proposed drainage system would be reviewed and approved by the City of Morgan Hill Engineering Land Development Division, which would ensure that the proposed drainage system complies with the City's Post Construction Stormwater Pollution Prevention Ordinance with respect to incorporating sufficient permanent stormwater treatment control BMPs. Therefore, water quality standards or waste discharge requirements would not be violated, and water quality would not be degraded as a result of the proposed project operations.

Conclusion

Based on the above discussions, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction and operations. Therefore, a ***less-than-significant*** impact would occur.

b,e. The City's water supplies currently consist entirely of groundwater. Approximately 25 percent of the City's supply is extracted from the Coyote Valley subarea of the Santa Clara Subbasin, and approximately 75 percent is extracted from the Llagas Subbasin. The project site is located within the Santa Clara Subbasin. Neither of the subbasins are in a condition of overdraft, and groundwater levels are not expected to drop.[28] It should be noted that water supply is discussed in Section XIX, Utilities and Service Systems, of this IS/MND.

According to the General Plan EIR, the SCVWD manages all groundwater basins within Santa Clara County and uses a Groundwater Recharge Program to maintain groundwater levels. The SCVWD provides about 26 percent of recharge with imported raw water and about 34 percent by way of releases from local reservoir storage. Rainfall percolation accounts for the remaining 40 percent of replenishment. Because the basins are not adjudicated, the maximum supply available to the City is its maximum capacity. The General Plan EIR evaluated the potential for development facilitated by buildout of the General Plan to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table and found that while such development could lead to an increased demand for water and groundwater pumping, water supply exceeds demand by at least 6,000 acre-feet per year (AFY). Additionally, the General Plan EIR accounted for the SCVWD's Groundwater Recharge Program and concluded that through compliance with all applicable General Plan policies and actions, a less-than-significant impact would occur. Approval of the General Plan Amendment would ensure consistency with the General Plan and the site's zoning district and the project would comply with all applicable

[28] City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report* [pg. 4.9-18]. Adopted July 2016.

polices, standards, and regulations set forth by the City's General Plan and Municipal Code. Therefore, the proposed project would not result in impacts beyond what were concluded in the General Plan and would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

Additionally, as the exclusive groundwater management agency for Santa Clara County, the SCVWD serves as the local Groundwater Sustainability Agency (GSA), in accordance with the Sustainable Groundwater Management Act (SGMA). The SGMA requires local agencies to form GSAs, which develop and implement Groundwater Sustainability Plans to avoid undesirable results and mitigate overdraft within 20 years. The SCVWD-adopted 2016 Groundwater Management Plan (GWMP) for the Santa Clara and Llagas Subbasins describes SCVWD's groundwater sustainability goals, and the strategies, programs, and activities that support such goals. In 2019, the Department of Water Resources (DWR) approved the GWMP for both the Santa Clara and Llagas Subbasins, determining it satisfies the objectives of SGMA. According to DWR, the Santa Clara Subbasin is a medium-priority subbasin.[29] Recharge within the Santa Clara Subbasin generally occurs along the margins and southern portion of the subbasin where coarse-grained sediments predominate.

While the proposed project would include development of new impervious surfaces on the project site, as discussed under question 'a' above, on-site stormwater runoff from impervious surfaces would be collected by new on-site storm drainage infrastructure and routed to a new bioretention/detention pond, which would provide water quality treatment and peak management at pre-project levels for on-site runoff. Runoff collected by the project's stormwater facilities would ultimately be discharged to the City's existing stormwater drain located along Old Monterey Road during large storm events.

Based on the above, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, a ***less-than-significant*** impact would occur.

ci-iii. The project site is undeveloped and consists of ruderal grassland, various shrubbery scattered throughout, and small trees located along the eastern and western borders. The project site also includes 28 parking spaces within the existing Starbucks parking lot located to the northwest and an existing manmade ditch. Development of the proposed project would include approximately 112,024 square feet of impervious surfaces, which would alter the existing drainage pattern of the site. However, as discussed above, on-site stormwater runoff would be collected by a series of drain inlets and transported by way of underground storm drain lines to a bioretention/detention pond. The bioretention/detention pond would allow stored runoff to infiltrate underlying soils in a manner similar to what currently occurs on-site. During large storm events, excess runoff would be discharged to the City's public storm drain system located in Old Monterey Road. The bioretention/detention pond would treat and retain runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows, in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032.

[29] Santa Clara Valley Water District. *2016 Groundwater Management Plan, Santa Clara and Llagas Subbasins* [pg. 1-1]. November 2016.

Furthermore, stormwater runoff associated with the site would be required to comply with the City's SWMP standards. As such, the project would not significantly increase stormwater flows into the existing system. The final drainage system design for the project would be subject to review and approval by the City of Morgan Hill Engineering Land Development Division, who would confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval.

As noted above, the proposed project would convert the existing on-site manmade drainage ditch to a series of pipe extensions that would underly the proposed development. The three existing 24-inch culverts and 18-inch culvert would be extended from the site's eastern boundary to the western property line. The existing 24-inch culverts are currently inlet controlled, which would dictate the flows across the site. According to a Floodplain Impact Memorandum prepared for the proposed project by Schaaf & Wheeler Consulting Civil Engineers (see Appendix F),[30] extension of the pipes under the site would provide for equal conveyance of runoff to what currently occurs with the existing drainage ditch. Even under worst-case, maximum flow conditions, the hydraulic modeling conducted as part of the Floodplain Impact Memorandum determined that the upstream head would be the same under the proposed project as under existing conditions. Additionally, on-site runoff from new impervious surfaces associated with development of the proposed project would not enter the proposed culvert extensions, but would be handled by a new on-site stormwater system, completely separate from the culvert, as described above.

Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site, 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. Thus, a ***less-than-significant*** impact would occur.

civ. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project site is located primarily within a Special Flood Hazard Area (SFHA) (Zone AH), which is defined as an area with one percent annual chance of shallow flooding with an average depth ranging from one to three feet and a Base Flood Elevation (BFE) of 354 feet (see Figure 12).[31] As such, in order to ascertain potential impacts associated with the project site's location within the 100-year floodplain, a Floodplain Impact Memorandum was prepared by Schaaf & Wheeler Consulting Civil Engineers (see Appendix F).[32]

Based on a hydraulic impact analysis using modeled flows from Llagas Creek, Schaaf & Wheeler concluded that the spills from Llagas Creek do not reach the project site and that the site could be removed entirely from the floodplain through a Letter of Map Revision (LOMR) process (see Figure 13 and Figure 14). However, approval of a LOMR can take anywhere from six weeks to six months.

30 Schaaf & Wheeler, Consulting Civil Engineers. *Monterey 8 Development Impact on Floodplain*. June 2, 2022.
31 Federal Emergency Management Agency. *National Flood Hazard Layer FIRMette.* Accessed July 2022.
32 Schaaf & Wheeler, Consulting Civil Engineers. *Monterey 8 Development Impact on Floodplain*. June 2, 2022.

Figure 12
National Flood Hazard Layer FIRMette

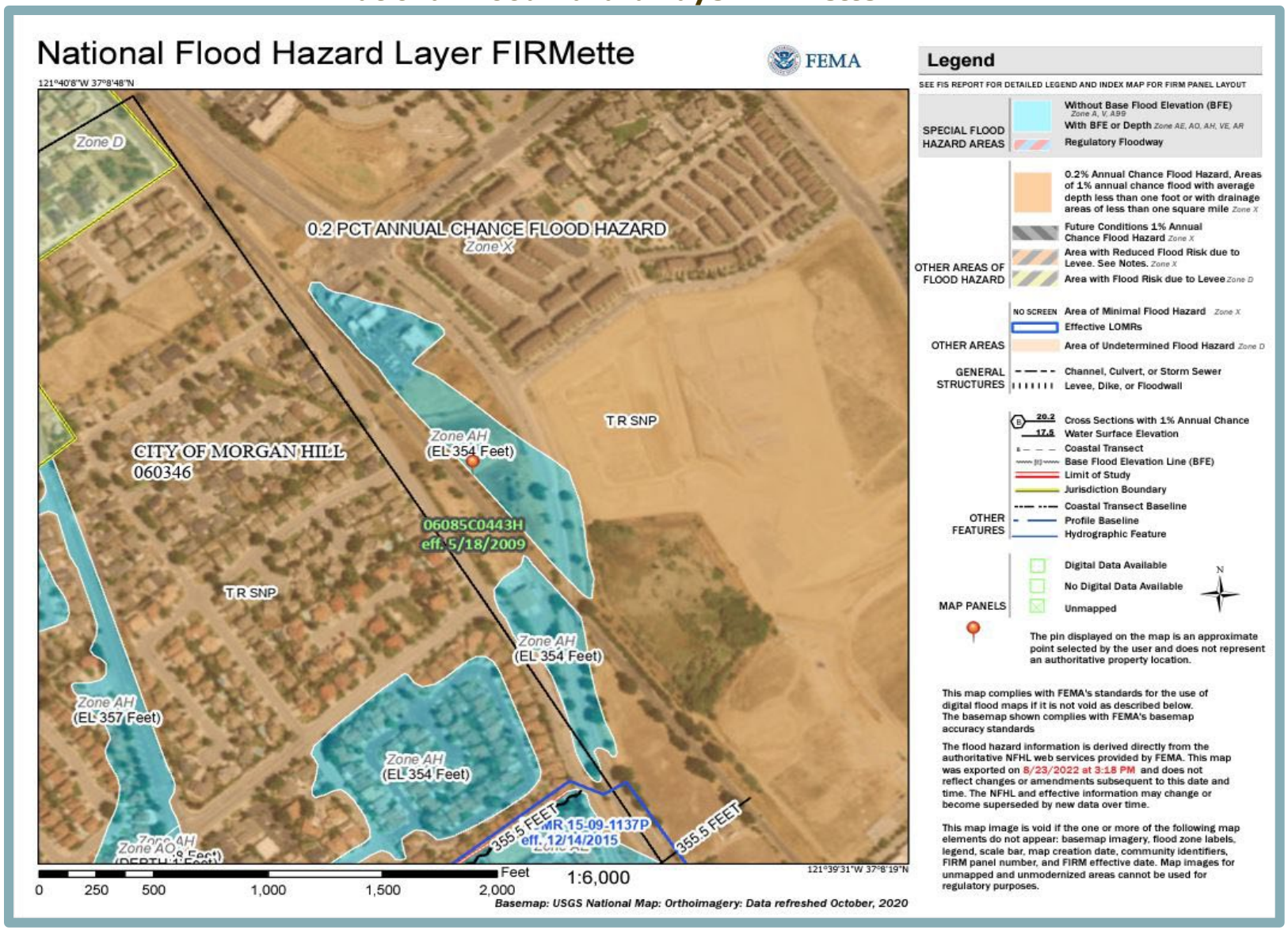


Figure 13
Llagas Creek Inundation Map

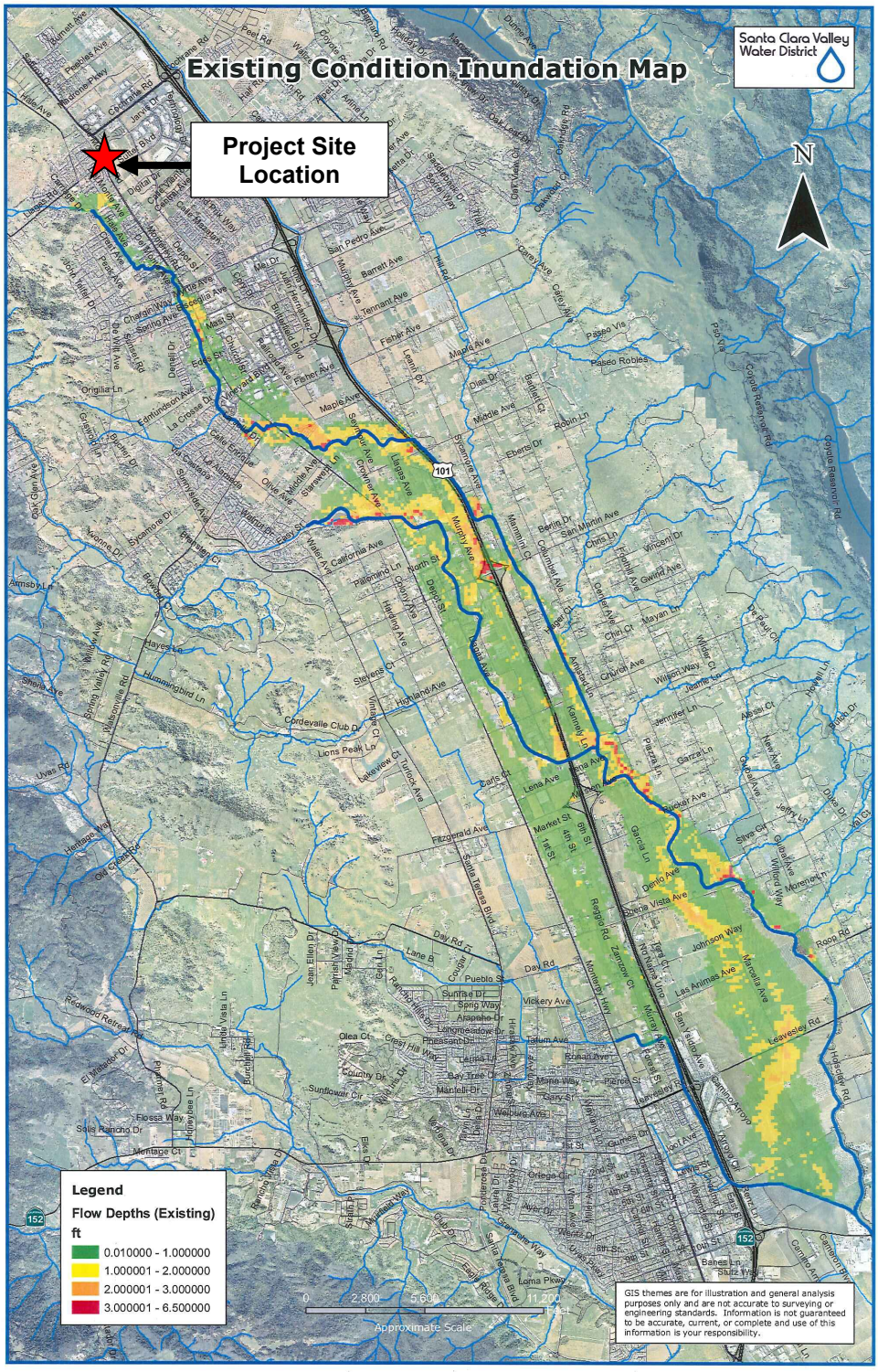


Figure 14
Llagas Creek Modeling Results



Pursuant to the City's Floodplain Ordinance (Section 15.80.160 of the Morgan Hill Municipal Code), without a LOMR, development within a SFHA is required to be anchored, constructed with flood resistant materials and designed to minimize flood damage, and elevated to at least one foot above the base flood elevation (within the AH Zone).

As discussed above, the proposed project would convert the existing on-site manmade drainage ditch to three new 24-inch culverts and a new 18-inch culvert that would extend from the existing culverts located near the site's eastern boundary to the western property line. The modification would provide equal conveyance of stormwater run-on from neighboring properties and the private (Butterfield) detention basin as compared to what currently occurs within the existing drainage ditch. Even under worst-case, maximum flow conditions, the hydraulic modeling conducted as part of the Floodplain Impact Memorandum determined that the upstream head would be the same under the proposed project as under existing conditions. Because pre-development and post-development flows associated with the run-on conveyance through the site would be the same, the conversion of the conveyance infrastructure from an open drainage ditch to culverts would not have the potential to impede or redirect flood flows. In addition, any overland spills from the detention basin would not be directed onto the project site, as the slope of Monterey Road is in the southern direction.

Given that the project site is located within a SFHA and a LOMR has not been approved for the project site, the potential exists that the project could alter the existing drainage pattern of the site or area in a manner which would impede or redirect flood flows, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

X-1. *Finished building pad elevations shall be a minimum of one foot above the 100-year floodplain line, in accordance with Section 15.80.160 of the Morgan Hill Municipal Code, and shall be shown on project Improvement Plans prior to their approval. The final pad elevation shall be certified by a California registered civil engineer or licensed land surveyor and submitted to the City Engineer. This certification shall be done prior to construction of the foundation or at the completion of final grading, whichever comes first. No building construction is allowed until the certification has been received by the City Engineer and approved by the floodplain manager. Benchmark elevation and location shall be shown on the Improvement Plans to the satisfaction of the Morgan Hill Development Services Department.*

d. A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, due to an earthquake that triggers land movement within the water body or land sliding into or beneath the water body. The project site is not located near a water body that is susceptible to seiche hazard. In addition, the distance to the nearest coastline does not subject the site to tsunami hazards. The project site is within the dam failure inundation hazard zone for Anderson Reservoir as indicated within the dam failure inundation hazard maps.[33]

[33] Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed October 2019.

The dams in Santa Clara County are managed by the SCVWD. The dams are inspected twice each year and are continuously monitored for seepage and settling and inspected immediately following significant earthquakes. A seismic stability evaluation performed in 2007 for Anderson Dam indicated that the downstream and upstream embankments could become unstable during a very large magnitude earthquake and the rupture of faults underlying the dam may have adverse impact on the outlet pipes and intake structure. The SCVWD has initiated a capital project, the Anderson Dam Seismic Retrofit Project (ADSRP), to complete the planning, design, and construction of the seismic retrofit of the dam. Construction work for the ADSRP was planned to start in 2021.[34]

Until recently, in order to protect the public from potential effects until the ADSRP is complete, a storage restriction of approximately 45 feet below the dam crest has been put in place, with a reduced storage capacity of 61,810 acre-feet. The SCVWD and regulatory agencies (California Division of Safety of Dams and the Federal Energy Regulatory Commission) have approved the restriction and believe that the restriction would be sufficient to prevent the uncontrolled release of water in case of dam failure after a major earthquake. As of December 2020, Anderson Reservoir, the largest reservoir in Santa Clara County, has been completely drained under the direction of federal dam regulators.

Based on the above, the proposed project would not be exposed to substantial risks related to flooding as a result of the failure of a dam, tsunamis, or seiches. In addition, as discussed under question ‘civ’ above, the proposed project would not present significant impact within a 100-year floodplain. Therefore, the project would not result in the release of pollutants due to project inundation, and a ***less-than-significant*** impact would occur.

[34] Santa Clara Valley Water District. *C1: Anderson Dam Seismic Retrofit*.* Available at: https://www.valleywater.org/anderson-dam-project. Updated November 2018.

XI. LAND USE AND PLANNING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	✖	☐

Discussion

a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community or isolate an existing land use. The project site is currently undeveloped. Through approval of the proposed General Plan Amendment and Rezone the proposed project would be consistent with the Morgan Hill General Plan. Furthermore, the project's residential component would be compatible with the existing single-family residential neighborhood to the northwest, west, and southwest of the project site. The project's commercial component would be consistent with the existing commercial uses to the north of the site. The City's existing roadway system would not be modified by the project. Additionally, the project would include sidewalk improvements along the new neighborhood roads to increase pedestrian connectivity in the project area. Therefore, the proposed project would be a continuation of the surrounding development and would not isolate an existing land use. As such, the project would not physically divide an established community, and a ***less-than-significant*** impact would occur.

b. The project site is currently undeveloped ruderal grassland. The City's General Plan land use designation for the site is C, and the City's zoning designations for the site are PD and GC .Through approval of a General Plan Amendment and Rezone, the project site would have a Mixed Use Flex land use designation and MU-F zoning. In addition, if the General Plan Amendment and Rezone were to be approved, the project site would be located within the Monterey Road Corridor for which a Block Level Master Plan (BLMP) is generally required for all projects wanting to develop within the block, subject to certain requirements of State law established by California SB 330. Pursuant to Section 18.22.020 (Land Use Regulations), the project would be consistent with regulations accommodating accessory dwelling units, mixed use residential units, parks and recreational facilities, restaurants, professional offices, general retail, and medical offices and clinics which are considered permitted and administrative uses within the MU-F zone district, and do not require approval of a Conditional Use Permit with certain exceptions. As such, the proposed project site would include five flexible commercial spaces and seven residential buildings containing a total of 49 townhome style condominium. Furthermore, as discussed throughout this IS/MND, the proposed project would not result in any significant environmental effects that could not be mitigated to a less-than-significant level. Through approval of a General Plan Amendment and Rezone, the proposed project would generally be consistent with General Plan policies, as well as other applicable policies and regulations adopted for the purpose of avoiding or mitigating environmental effects. For example, with implementation of Mitigation Measures IV-1 through IV-5 that include preconstruction surveys for burrowing owls and nesting/migratory birds, compliance with the Clean Water Act, as well as mitigated removal of Ordinance Sized Trees, the project would not conflict with any applicable policies, regulations, or ordinances related to the protection of biological resources. As discussed under Section XIII, Noise, of this IS/MND, the project would comply with the noise level thresholds established in the City's General Plan and the Municipal Code

during construction or operation with implementation of Mitigation Measure XII-1 and XII-2.

Based on the above, the proposed project would not cause a substantial adverse 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, and a ***less-than-significant*** impact would result.

XII. MINERAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	✖

Discussion

a,b. The City's General Plan does not identify any regionally or locally important mineral resources within the City of Morgan Hill. The Santa Clara County General Plan does identify mineral resources of importance; however, the project site is not in proximity to the quarries currently in operation. Consequently, the proposed project would not result in the loss of a known mineral resource that would be of value to the region nor would the project result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, ***no impact*** to mineral resources would occur as a result of the proposed project.

XIII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	✖

Discussion

a. The following section is based primarily on an Exterior Noise and Façade Acoustical Analysis prepared for the proposed project by Veneklasen Associates,[35] and includes a discussion of noise standards and criteria applicable to various land uses, as well as potential traffic noise and non-transportation noise sources associated with the proposed project. The following terms are referenced in the sections below:

- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to dB in this section will be A-weighted unless noted otherwise.
- Day-Night Average Level (L_{dn}): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.
- Equivalent Sound Level (L_{eq}): The average sound level over a given time-period.
- Maximum Sound Level (L_{max}): The maximum sound level over a given time-period.
- Median Sound Level (L_{50}): The sound level exceeded 50 percent of the time over a given time-period.

Sensitive Receptors

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are considered to be sensitive to noise because intrusive noise can be disruptive to such activities. Within the project vicinity, the nearest sensitive receptors are the multi-family residences located north of the project site, across Monterey Road, approximately 140 feet away.

Existing Noise Environment

The ambient noise environment in the immediate project vicinity is defined by traffic on Monterey Road and rail activity associated with the adjacent UPRR tracks. On November 8, 2021, four short-term and two long-term noise measurements were conducted by

[35] Veneklasen Associates. *Morgan Hill, California, Exterior Noise and Façade Acoustical Analysis, VA Project No. 4616-025.* October 12, 2022.

Veneklasen Associates using two Bruel & Kjaer type 2270 sound level meters to determine the existing noise environment. For the long-term noise measurements, one meter was placed 40 feet from the UPRR, and the other meter was placed approximately 100 feet from Monterey Road. Table 7 shows a summary of the noise measurements.

Table 7
Measured Sound Levels

Measurement	Train Pass-By/ Road Events, dB L_1	Noise Level (L_{dn})
Noise, Train	90 - 95	66
Noise, Road	70 - 72	68

Source: Veneklasen Associates, 2022.

City Noise Standards and Criteria

Chapter 9, Safety, Service, and Infrastructure, of the City's General Plan contains the following policies that would be applicable to the proposed project:

SSI-8.1 Exterior Noise Level Standards. Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (see Table SSI-1 [of the General Plan]), as follows:

- Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA may be permitted.
- Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.
- Noise levels in new residential development exposed to an exterior L_{dn} 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn}, recognizing that train noise is characterized by relatively few loud events.

SSI-8.2 Impact Evaluation. The impact of a proposed development project on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.

SSI-8.5 Traffic Noise Level Standards. Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

SSI-8.6 Stationary Noise Level Standards. Consider noise levels produced by stationary noise sources associated with new projects significant if they substantially exceed existing ambient noise levels.

SSI-8.7 Other Noise Sources. Consider noise levels produced by other noise sources (such as ballfields) significant if an acoustical study demonstrates they would substantially exceed ambient noise levels.

SSI-8.9 Site Planning and Design. Require attention to site planning and design techniques other than sound walls to reduce noise impacts, including: a) installing earth berms, b) increasing the distance between the noise source and the receiver, c) using non-sensitive structures such as parking lots, utility areas, and garages to shield noise-sensitive areas, d) orienting buildings to shield outdoor spaces from the noise source, and e) minimizing the noise at its source.

In addition to the policies listed above, Section 18.76.090 (Noise) of the City's Municipal Code contains maximum noise levels for non-transportation noise sources. The City's quantitative exterior noise standards are reproduced below in Table 8. According to City staff, such standards are interpreted as being hourly average noise level standards (L_{eq}).

Table 8
Noise Level Performance Standards

Receiving Land Use	Maximum Noise Level at Lot Line of Receiving Use
Industrial and Wholesale	70 dBA
Commercial	65 dBA
Residential or Public/Quasi Public	60 dBA

Notes:
- The planning commission may allow an additional 5 dBA noise level at the lot line if the maximum noise level shown above cannot be achieved with reasonable and feasible mitigation.
- Noise standards shown above do not apply to noise generated by vehicle traffic in the public right-of-way or from temporary construction, demolition, and vehicles that enter or leave the site of the noise-generating use (e.g., construction equipment, trains, trucks).

Source: City of Morgan Hill Municipal Code.

Furthermore, Section 8.28.040.D of the Morgan Hill Municipal Code, limits construction activity noise as follows:

> "Construction activities" are defined as including but not limited to excavation, grading, paving, demolition, construction, alteration or repair of any building, site, street or highway, delivery or removal of construction material to a site, or movement of construction materials on a site. Construction activities are prohibited other than between the hours of seven a.m. and eight p.m., Monday through Friday and between the hours of nine a.m. to six p.m. on Saturday. Construction activities may not occur on Sundays or federal holidays. No third person, including but not limited to landowners, construction company owners, contractors, subcontractors, or employers, shall permit or allow any person working on construction activities which are under their ownership, control or direction to violate this provision.

Construction activities may occur in the following cases without violation of this provision:

a. In the event of urgent necessity in the interests of the public health and safety, and then only with a permit from the Chief Building Official, which permit may be granted for a period of not to exceed three days or less while the emergency continues, and which permit may be renewed for periods of three days or less while the emergency continues.

b. If the Chief Building Official determines that the public health and safety will not be impaired by the construction activities between the hours of eight p.m. and seven a.m., and that loss or inconvenience would result to any party in interest, the Chief Building Official may grant permission for such work to be done between the hours of eight p.m. and seven a.m. upon an application being made at the time the permit for the work is issued or during the progress of the work.

c. The City Council finds that construction by the resident of a single residence does not have the same magnitude or frequency of noise impacts as a larger construction project. Therefore, the resident of a single residence may perform construction activities on that home during the hours in this subsection, as well as on Sundays and federal holidays from nine a.m. to six p.m., provided that such activities are limited to the improvement or maintenance undertaken by the resident on a personal basis.

d. Public Work projects are exempt from this section and the Public Works Director shall determine the hours of construction for public works projects.

Project Construction Noise

During construction of the proposed project, heavy-duty equipment would be used for demolition, grading, excavation, paving, and building construction, which would result in temporary noise level increases while in operation. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and haul trucks would be used on-site.

Table 9 shows maximum noise levels associated with typical construction equipment. Based on the table, activities involved in typical construction would generate maximum noise levels up to 85 dB at a distance of 50 feet. As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source.

The nearest noise-sensitive receptor is located approximately 140 feet from the project site boundary. Thus, construction activities associated with the proposed project would be less than the levels shown in Table 9 at the receptor.

Table 9
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Pneumatic Tools	85

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.

Regardless, the Morgan Hill Municipal Code does not specify any short-term noise level limits. In addition, Chapter 8.28 of the Morgan Hill Municipal Code prohibits construction activities between 8:00 PM and 7:00 AM, Monday through Friday, and between 6:00 PM and 9:00 AM on Saturdays. Construction activities may not occur on Sundays or federal holidays. Furthermore, construction activities related to the proposed project would include the use of sound-dampening equipment such as mufflers, air-inlet silencers, shrouds, shields, or other noise-reducing features where appropriate.

Enforcement of time restrictions specified in the Morgan Hill Noise Ordinance and the use of noise-dampened equipment would be required to ensure that the temporary or periodic increase in ambient noise levels in the project vicinity associated with construction of the proposed project would not be considered substantial.

Project Operational Noise

The primary noise source associated with operation of the proposed project would be traffic noise. Per General Plan Policy SSI-8.5, noise level increases resulting from traffic associated with new projects are considered significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dB L_{dn}, or b) the noise level increase is 3 dB L_{dn} or greater, with a future noise level of 60 dB L_{dn} or greater. As shown in Table 7, noise levels 100 feet from Monterey Road were measured to be 68 dB L_{dn}. Therefore, the applicable threshold is 3 dB L_{dn}.

According to the Trip Generation and Operations Analysis prepared for the proposed project by Hexagon, the project is anticipated to generate 55 new vehicle trips during the AM peak hour and 84 new vehicle trips during the PM peak hour. Based on the Exterior Noise and Façade Acoustical Analysis, the project's increase in peak hour traffic represents a one to three percent increase for each intersection, which would result in an increase in overall traffic noise levels of 0.1 dB, which is indistinguishable to the human ear. As such, ADT produced by the proposed project would not be significant enough to generate an increase in sound levels beyond the City's 3 dB L_{dn} threshold. Therefore, traffic noise level increases attributable to the proposed project would be less than significant.

Noise at Proposed Development

Impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required CEQA review. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. City of Los Angeles,* (2011) 201 Cal.App.4th 455, 473 (*Ballona*)). The California Supreme Court recently held that "CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate… is an analysis of how a project might exacerbate existing environmental hazards." (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392; see also *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 197 ["identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes"], quoting *Ballona*, *supra*, 201 Cal.App.4th at p. 474.)

Based on the above, for the purposes of the CEQA analysis, the relevant inquiry is not whether future residents, workers, and guests at the proposed project will be exposed to preexisting environmental noise-related hazards, but instead whether project-generated noise will exacerbate the pre-existing conditions. However, an evaluation of estimated noise levels at the exterior and interior of the proposed buildings is provided herein for informational purposes and project conditions of approval. The following discussion is based on an Exterior Noise and Façade Acoustical Analysis (Acoustical Analysis) prepared for the proposed project by Veneklasen Associates (see Appendix G).[36]

As noted previously, ambient noise levels at the project site are defined primarily by traffic noise along Monterey Road and train activity associated with the adjacent UPRR tracks. Veneklasen calculated the noise exposure levels in different zones across the project site (see Figure 15). The predicted sound levels at each zone are listed in Table 10 below.

Table 10
Exterior Noise Levels

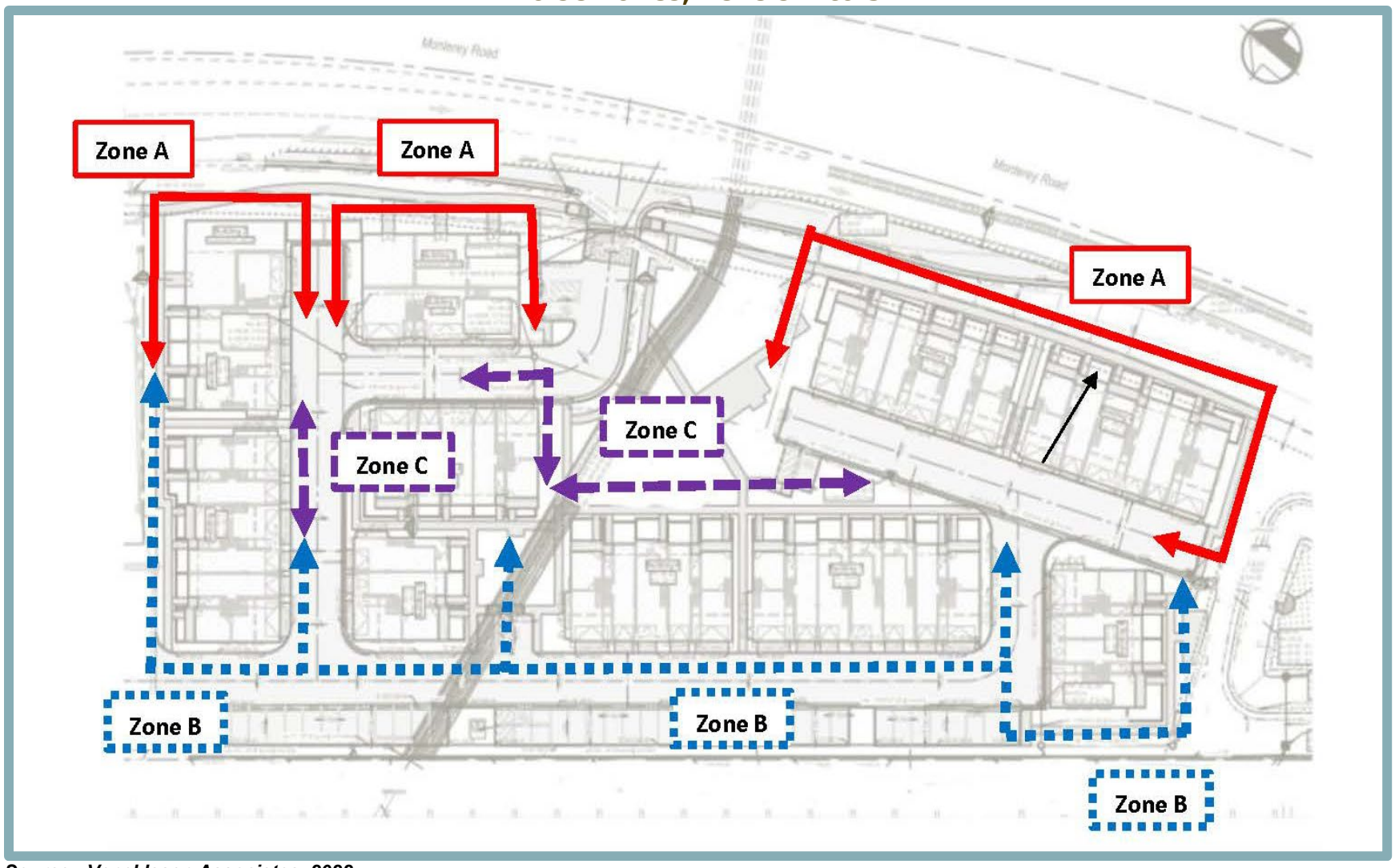
Location	Floor	Exterior Noise Level, L_{dn}	Train Pass-by/Road Traffic Level, dBA
Zone A	All	68-69	72-74
Zone B	All	65-67	90-94
Zone C	All	60-65	72
Remaining Units	All	< 60	<70

Source: Veneklasen Associates, 2022.

Pursuant to the City's General Plan and Municipal Code (see Table 8), the maximum allowable exterior noise level for residential land uses is 60 dBA L_{dn}. However, the maximum outdoor noise level for new residences located near the railroad is 70 dBA L_{dn}. As presented in Table 10, the predicted noise levels at the proposed project would exceed the allowable noise standard. In order to address the noise standard exceedance, the proposed project would be designed in accordance with the following recommendations provided by Veneklasen, compliance with which would be ensured as a condition of project approval.

[36] Veneklasen Associates. *Morgan Hill, California, Exterior Noise and Façade Acoustical Analysis, VA Project No. 4616-025.* October 12, 2022.

Figure 15
Noise Zones, Levels 1 to 3



Source: Veneklasen Associates, 2022.

- The proposed project shall include upgraded wall assemblies and high Sound Transmission Class (STC)-rated glazing consistent with the requirements presented in Table 11, below.

Additionally, because the windows and doors must be kept closed to meet the noise requirements, mechanical or other means of ventilation may be required for units in Zones A, B, and C. With implementation of the recommendations presented in the Acoustical Analysis, all proposed buildings would comply with the applicable exterior residential building standard of 70 dBA L_{dn} and interior sound level of 45 dBA L_{dn}.

Conclusion

Based on the above, operation of the proposed project would not result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City's General Plan and the Municipal Code. However, considering the potential for construction activities to conflict with standards established by Section 8.28.040 (Enumeration of unlawful noises) of the City's Municipal Code, the proposed project could result in a ***potentially significant*** impact related to temporary increases in ambient noise levels in the project area.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

XIII-1. *Noise-generating construction activities associated with the proposed project shall only occur within the hours identified in Municipal Code Section 8.28.040(D). The above language shall be included on final project improvement plans prior to issuance of a grading permit by the City of Morgan Hill Development Services Department.*

XIII-2. *To the maximum extent practical, the following measures shall be implemented during project construction:*

- *All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition;*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, State, or local agency shall comply with such regulations while in the course of project construction;*
- *Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible;*
- *Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors;*
- *Project area and site access road speed limits shall be established and enforced during the construction period; and*

Table 11
Calculated Interior Maximum Noise Levels

Location	Floor	Exterior Sound Level		Glazing Rating LR/BR*	Upgraded Exterior Wall?	Interior Sound Level		Meet the City Criteria?	
		L_{dn}	Event Level, dBA			L_{dn}	Event Level, dBA LR/BR*	L_{dn}	Event Level LR/BR
Zone A	All	69 – 70	72 – 74	STC 35/STC 35	No	< 45	55/50	Yes	Yes/Yes
Zone B	All	65 – 67	94	STC 42/STC 50	Yes	< 45	55/50	Yes	Yes/Yes
Zone C	All	60 – 65	70 – 72	STC 30/ STC 30	No	< 45	55/50	Yes	Yes/Yes
Remaining Zones	All	60 -67	< 70	STC 30/ STC 30	No	< 45	< 55/50	Yes	Yes/Yes

Notes:
* LR/BR means Living Room/Bedroom

Source: Veneklasen Associates, 2022.

- *Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.*

The above requirements shall be included via notation on project grading plans, subject to review and approval by the Development Services Department prior to issuance of a grading permit.

b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 12, which was developed by Caltrans, shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration.

The primary vibration-generating activities associated with the proposed project would occur during grading, paving, placement of utilities, and construction of foundations. Table 13 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could potentially be required during construction of the proposed drive aisles.

However, as presented in the table, when construction occurs at 50 feet away from the receiving property, vibration levels would not exceed the 0.2 in/sec PPV threshold for damage to buildings or the 0.1 in/sec PPV threshold for annoyance to receptors. Given that the nearest sensitive receptor is located approximately 140 feet away, vibration impacts would not occur. Additionally, groundborne vibration associated with construction activities would occur intermittently over a short period of time.

It is noted that the Acoustical Analysis prepared for the proposed project also evaluated the vibration levels at the proposed residences due to the train passing. The railroad-induced vibration levels at the project site would be below the 80 VdB guidelines for acceptability as established by the Federal Transit Administration (FTA) and, as a result, further recommendations to reduce vibration levels are not required.

Table 12
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling – houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

Table 13
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.029
Loaded Trucks	0.076	0.025
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.029
Jackhammer	0.035	0.011
Vibratory Hammer	0.070	0.023
Vibratory Compactor/roller	0.210	0.070

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

Based on the above, implementation of the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels, and impacts would be ***less than significant***.

c. The public airport nearest to the project site is the San Martin Airport, which is located approximately 5.22 miles south of the project site at 13030 Murphy Avenue. The project site is located outside of the Airport Influence Area identified in the South County Airport Comprehensive Land Use Plan.[37] In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not expose people

[37] Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

residing or working in the project area to excessive noise levels associated with air traffic, and ***no impact*** would occur.

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

Discussion

a. The timing, type, and amount of residential growth in Morgan Hill has historically been controlled by the City's Residential Development Control System (RDCS) which was adopted for the purpose of managing growth in Morgan Hill. Measure S was approved by the Morgan Hill voters in 2016, extending the City's RDCS to 2035, and establishing a City population ceiling of 58,200. On January 1, 2020, the City's RDCS was suspended by SB 330, the Housing Crisis Act of 2019 (Housing Accountability Act), for five years, and thereafter State law extended the Act for an additional five years under SB 8. The Housing Accountability Act prohibits a local agency from placing a cap on the number of housing units that can be approved or constructed either annually or for some other time period or limits the population of the jurisdiction.

The 2035 General Plan planned for commercial development to be constructed on the project site pursuant to the site's General Plan land use designation of Commercial. The proposed project would develop five commercial flex units and 49 townhome-style condominium units, which provides residential development not anticipated for the site by the General Plan EIR. Using a persons per household rate of 3.09 as estimated by the ABAG 2035 Demographic Projections for the City of Morgan Hill, the proposed project could be expected to house approximately 152 residents.

Population growth itself does not constitute an environmental impact; rather, increased demands on the physical environment resulting from increases in population are considered environmental impacts. For example, increased demands on City services could require system upgrades, the construction of which could have environmental impacts. Physical environmental effects associated with development of the proposed project are evaluated throughout this IS/MND. As discussed in Section XV, Public Services, of this IS/MND, the project site is located in an urban area and is surrounded by existing development. Therefore, construction of new or expanded public services facilities would not be necessary to serve the proposed project. As discussed in Section XIX, Utilities and Service Systems, the proposed project would not include construction of new off-site utility infrastructure or expansion of existing utilities.

While the proposed project would result in population growth, such growth could be accommodated by existing public services and infrastructure and would not result in significant adverse environmental effects. Thus, a ***less-than-significant*** impact would occur related to inducing substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).

b. The project site does not contain existing residences. Therefore, the proposed project would not displace substantial numbers of existing people or housing and ***no impact*** would occur.

XV. PUBLIC SERVICES.

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:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	✖	☐
b. Police protection?	☐	☐	✖	☐
c. Schools?	☐	☐	✖	☐
d. Parks?	☐	☐	✖	☐
e. Other Public Facilities?	☐	☐	✖	☐

Discussion

a-c,e. The City of Morgan Hill contracts with CAL FIRE (California Department of Forestry and Fire Protection) for fire protection services. Three CAL FIRE stations are located within the City boundaries: El Toro Station, located at 18300 Old Monterey Road; Dunne-Hill Station, located at 2100 Dunne Avenue; and the CAL FIRE station at 15670 Monterey Road. The nearest fire station (El Toro Station) is located adjacent to the project site, separated by the UPRR railroad tracks to the south. Although the City has not adopted response time standards or goals related to fire suppression, CAL FIRE is held to a seven minute, 59 second response time standard pursuant to the 911 Emergency Medical Services Provider Agreement between the City of Morgan Hill and the County of Santa Clara Emergency Medical Services Agency.[38]

The project site has been previously anticipated by the General Plan for urban development. The increase in demand associated with the proposed project would not necessitate new or physically altered facilities and, due to its proximity to the nearest fire station, the emergency medical services (EMS) response time standard of seven minutes, 59 seconds could be maintained. In addition, the proposed structures would be equipped with fire sprinklers and fire alarm systems. Such features would help to address fire situations within the site, which would reduce the demand for fire protection services from the project site.

The project site is located within the Morgan Hill Police Department's normal patrol routes, and, thus, police response times would be comparable to nearby existing developments. Furthermore, the project would provide approximately 152 additional residents (49 units x 3.09 persons per household = 152 residents) in the City of Morgan Hill.[39] As such, the incremental increase in demand for police and fire protection associated with the proposed project would not necessitate new or physically altered protection facilities and would not be substantial enough such that the current response times could not be maintained.

In addition, pursuant to Municipal Code 3.56.030, the project applicant would also be subject to developmental impact fees which would finance the cost of public facilities and improvements, including public safety facilities, required by new development.

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[38] Dwight Good, Assistant Chief Cooperative Fire Protection, Morgan Hill Fire Department. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc. June 1, 2021.

[39] City of Morgan Hill. *Housing Element* [Table 1-1]. Adopted February 18, 2015.

The Morgan Hill Unified School District (MHUSD) operates public education facilities that serve the project site and surrounding area. The City of Morgan Hill is served by eight elementary schools, two middle schools, two high schools, one continuation school, one K-8 home school program, and one community adult school. Utilizing the MHUSD student yield rate of 0.465 students per household, the total anticipated development potential for the project site (49 residential units) could add approximately 23 new students to MHUSD schools.

The City collects development impact fees to help pay for public services including public schools. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act involving the planning, use, or development of real property." (Government Code 65996(b).) Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation." Therefore, according to SB 50, the payment of the necessary school impact fees for the project would be full and satisfactory CEQA mitigation.

With regard to other public facilities, such as libraries, given the relatively small number of units included in the proposed project, the project would not be anticipated to result in a substantial increase in demand for library services, or other public facilities, such that expanded facilities would be required. Future residents of the proposed project would have access to the Morgan Hill Library, which is operated by the Santa Clara County Library District. In addition, the General Plan EIR concluded that buildout of the City, including the project site, would have a less-than-significant impact related to libraries.

Based on the above, the project would have a ***less-than-significant*** impact with respect to creating adverse physical environmental impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, and schools.

d. The proposed project is anticipated to generate an estimated 152 additional residents (49 units X 3.09 persons per household = 152 residents) in the City of Morgan Hill.[40] As required by Section 3.56.030 of the Morgan Hill Municipal Code, the City collects park impact fees to offset the demand for neighborhood parkland created by new housing developments. In addition, the proposed project would include multiple open space/common areas as an amenity for future residents. Amenities to be included within the common space areas would include, but not be limited to, a children's play area, bocce ball courts, seating plaza, and barbecue areas. Given that the proposed project would be required to comply with Section 3.56.030 and 17.28.070 of the Municipal Code, and the project would provide a range of on-site recreational amenities, the project would have a ***less-than-significant*** impact with respect to creating adverse physical environmental impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for parks.

[40] City of Morgan Hill. *Housing Element* [Table 1-1]. Adopted February 18, 2015.

XVI. RECREATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	✖	☐
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?	☐	☐	✖	☐

Discussion

a,b. Considering the total of 49 residential units, the proposed project would generate approximately 152 additional residents (based on 3.09 persons per household) in the City of Morgan Hill.[41] Given the City's parkland goal of five acres per 1,000 residents, the proposed project would create the need for a minor amount of additional parkland (0.76 acres). The City of Morgan Hill has adopted a Land Dedications and Reservations Ordinance (Municipal Code Chapter 17.28) that requires residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. If there is no park or recreational facility designated in the City's Bikeways, Trails, Parks and Recreation Master Plan to be located in whole or in part within the proposed project site to serve the immediate and future needs of the residents, the project applicant shall pay a fee equal to the value of the land prescribed for dedication per Section 17.28.060 of the Municipal Code. The project is not located in whole or in part of a recreational facility identified in the Master Plan; therefore, the project is not proposing to dedicate any land to the City for recreational facilities. The project applicant would pay in-lieu fees required per the Municipal Code. The park impact fees imposed by the City will generate revenue to acquire necessary land to develop new parks or rehabilitate existing neighborhood parks and recreation facilities reasonably related to serve the subdivision. In addition, while the proposed project would not provide any public parkland on-site, the project would include on-site open space/common areas as an amenity for future residents. Based on the above, a ***less-than-significant*** impact would occur with regard to recreational resources.

[41] According to the persons per household demographic projection for Morgan Hill for the year 2015 (see Table 1-1 of City of Morgan Hill Housing Element, adopted February 18, 2015.

XVII. TRANSPORTATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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)?	☐	☐	✖	☐
d. Result in inadequate emergency access?	☐	☐	✖	☐

Discussion

a. The law has changed with respect to how transportation-related impacts may be addressed under CEQA. Traditionally, lead agencies used level of service (LOS) to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Enacted as part of SB 743 (2013), PRC Section 21099, subdivision (b)(1), directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed CEQA Guidelines addressing "criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."

Pursuant to SB 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018. It became effective in early 2019. Subdivision (a) of that section provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact."

Please refer to Question 'b' for a discussion of VMT.

Pedestrian, Bicycle, and Transit Facilities

In the vicinity of the project site, are provided along the following roadway segments: southbound Monterey Road, between Cochrane Road and 420 feet south of Cochrane Road; northbound Monterey Road, until 450 feet north of Cochrane Road; Westbound Cochrane Road, between Cochrane Circle and Monterey Road; and eastbound Cochrane Road, east of Monterey Road. The proposed project would provide a new sidewalk along the project frontage on Monterey Road, connecting to existing sidewalks to the north along the adjacent commercial plaza. In addition, the signalized intersection of Monterey Road and Old Monterey Road currently has a crosswalk across the south approach, providing a connection between sidewalks on both sides of Monterey Road, and the Monterey Road and Cochrane Road intersection provides crosswalks across all four legs. Such pedestrian facilities would provide a pedestrian connection between the project site and nearby land uses along Monterey Road. Thus, the proposed project would not conflict with any existing or planned pedestrian facilities and would provide for improved pedestrian connectivity in the project area.

Bike lanes are currently provided along the length of Monterey Road, including along the project frontage, and Cochrane Road. With development of the proposed project, the existing bike lane along the Monterey Road frontage would be retained. The project is not expected to generate a significant amount of new bicycle trips. The demand generated by the proposed project could be accommodated by the existing bicycle facilities in the vicinity of the project site. Thus, the proposed project would not conflict with any existing or planned bicycle facilities and sufficient bicycle facilities would be available for future project residents, workers, and guests.

The project site is served by VTA bus routes that run along Monterey Road, Cochrane Road and Hale Avenue. Express Route 568 serves bus stops at the intersection of Cochrane Road and Cochrane Circle, approximately 1,000 feet walking distance from the project site. Frequent Route 68 serves bus stops at the intersection of Hale Avenue and Llagas Road, an approximately 0.8-mile walking distance from the project site; and Local Route 87 serve bus stops at the intersection of Cochrane Road and Cochrane Circle, approximately 1,000 feet walking distance from the project site. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the proposed project, the project would generate approximately three transit riders or less during the AM and PM peak hours. The transit ridership demands of the proposed project would not justify the enhancement of any existing transit facilities. Overall, the proposed project would not have a substantial adverse effect on transit facilities in the project area.

Conclusion

Based on the above, a ***less-than-significant*** impact would occur related to conflicting with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts, with other relevant considerations consisting of the effects of the project on transit and non-motorized travel.

   Pursuant to Section 15064.3(b)(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. Hexagon Transportation Consultants, Inc. prepared a VMT assessment for the proposed project (see Appendix H).[42] The City of Morgan Hill, at the time of the VMT report prepared for the proposed project, is undertaking a process of updating its General Plan policies to incorporate VMT methodologies and significance thresholds to be consistent with SB 743, but has not yet released draft thresholds. In the absence of an adopted or draft City policy with numeric thresholds, the VMT assessment relies on *The Technical Advisory on Evaluating Transportation Impacts in CEQA* published by the Governor's OPR,[43] as well as the VTA *VMT Evaluation Tool*, to analyze the project's effects on VMT. The OPR recommendations include the screening thresholds criteria listed below:

[42] Hexagon Transportation Consultants, Inc. *VMT Assessment for the Proposed The Gates Mixed-Use Development in Morgan Hill, California.* July 1, 2022.

[43] Governor's Office of Planning and Research. *Technical Advisory on Evaluation Transportation Impacts in CEQA*. December 2018.

- Office or residential projects not exceeding a level of 15 percent below existing VMT per capita may indicate a less-than-significant impact on VMT;
- Projects (including office, residential, retail, and mixed-use developments) proposed within half a mile of an existing major transit stop or within a quarter of an existing stop along a high-quality transit corridor may be presumed to have a less-than-significant impact;
- 100 percent affordable residential development in infill locations be presumed to have a less-than-significant impact on VMT;
- Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant impact; and
- Local-serving retail developments (considered to be less than 50,000 square feet in size).

In accordance with the OPR Technical Advisory, VMT per capita is the recommended metric to evaluate CEQA-related transportation impacts for residential land uses. OPR recommends an impact threshold of 15 percent below the existing VMT levels for residential land uses.

In order to assess project VMT associated with the residential portion of the project, the VTA Evaluation Tool was used. The VTA evaluation tool calculates the project VMT based on the project location, type of development, project description, and proposed trip reduction measures. Projects located in areas where the existing VMT is above the established threshold are referred to as being in “high-VMT areas.” Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible.

The VTA’s Evaluation Tool indicates that the City-wide VMT per capita is currently 24.64. Therefore, the OPR-recommended impact threshold of 15 percent below the citywide average VMT per capita equates to 20.94 VMT per capita. The VTA Evaluation Tool determined that the VMT value resulting from buildout of the proposed project would be 19.4 VMT per capita. Therefore, the VMT per capita of the proposed project would be below the OPR’s recommended impact threshold of 20.94 VMT per capita, and, thus, can be assumed to be less than significant.

In addition, the project’s retail component consists of 4,016 square feetof ground-floor retail space. Because the proposed retail use would be less than 50,000 sf in size, the retail use may be presumed to be a local-serving facility and would, therefore, have a less-than-significant impact on VMT. The OPR guidelines suggest that by adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local serving retail development tends to shorten trips and reduce VMT. As a result of the project having trip making characteristics of a local-serving retail facility, the presumption can be made that the retail component of the project would have a less-than-significant impact on VMT.

Based on the above, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a ***less-than-significant*** would occur.

c,d. Primary site access would be provided by way of a right-in and right-out access driveway on southbound Monterey Road. Inbound and outbound left-turns to and from the project driveway would be prohibited by the existing landscaped median along Monterey Road

between Cochrane Road and Jarvis Drive. Additional site access would be provided by internal roadways connecting to the commercial center to the north, and would be accessible by way of the west leg of the signalized Monterey Road/Cochrane Road intersection. Pursuant to the Trip Generation and Operations Analysis prepared for the proposed project, a total of 55 vehicle trips (20 inbound and 35 outbound) are expected during the AM peak hour and 92 vehicle trips (53 inbound and 39 outbound) are expected during the PM peak hour.[44] Due to limited access operations at the Monterey Road driveway, significant vehicle delay and queuing are not expected to occur.

The City's Design Standards specify a minimum driveway width of 16 feet for residential uses and a maximum driveway width of 36 for commercial uses. As the site plan indicates that the project driveway would be 26 feet wide, the width of the proposed Monterey Road driveway would meet City standards. Furthermore, the project would include the widening of Monterey Road and improvements along the Monterey Road frontage.

According to the Trip Generation and Operations Analysis, Monterey Road has a posted speed limit of 35 mph. For a design speed of 35 mph, the recommended Caltrans stopping sight distance is 250 feet. Vehicles exiting the project site driveway would have sight distance of more than 250 feet to the north along southbound Monterey Road and would be free and clear of any obstructions that would inhibit adequate sight distance.

The proposed circulation system would be designed consistent with applicable City of Morgan Hill design standards and would provide adequate width and turn radii at and along all drive/parking aisles to allow for two-way circulation, including circulation of larger vehicles such as emergency trucks, garbage trucks, and delivery trucks. While the project would include several dead-end drive aisles, emergency vehicles would have sufficient maneuvering space to turn around before exiting the site without encountering obstructions. Given compliance with required roadway design standards, adequate emergency vehicle access would be provided at the project site.

Based on the above, the proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), and would not result in inadequate emergency access. Therefore, a ***less-than-significant*** impact would occur.

[44] Hexagon Transportation Consultations, Inc. *Trip Generation and Operations Analysis for the Proposed The Gates Mixed-Use Development in Morgan Hill, California.* July 1, 2022.

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:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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).	☐	☐	✖	☐
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 I of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision I of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	✖	☐

Discussion

a,b. As discussed in Section V, Cultural Resources, of this IS/MND, the project site has been subject to past disturbance, including regular disking and mowing associated with fuel reduction. Additionally, the site is surrounded by existing residential, commercial, and planned-unit development. Furthermore, archival research by ARM revealed that previously recorded archaeological resources are not located within the proposed project area. However, three previously recorded resources are located within a one-quarter mile radius of the project site, and thus, the Northwest Information Center of the CHRIS noted that the property has potential to contain previously unrecorded archaeological resources. Nonetheless, in the event that unknown tribal cultural resources are unearthed, consistent with Section 18.60.090 of the City's Municipal Code, the City standard conditions of approval, as discussed in Section V, Cultural Resources, of this IS/MND, would be implemented.

It should be noted that in compliance with AB 52 (PRC Section 21080.3.1), and SB 18, project notification letters were distributed to a consultation list of tribes with traditional lands or cultural places located within the project area, as identified by the Native American Heritage Commission (NAHC), on May 11, 2022. One response was received from the Tamien Nation. The tribe shared concern over the potentially sensitive area, and requested specific measures be taken in the event that archeological resources are found on-site. In addition, the tribe requested a copy of all reports referenced in the Archival Review. The City confirmed that the City's Conditions of Approval are still sufficient to the Tamien Nation, and forwarded the reports referenced in the Archival Review, as requested. As such, consultation was deemed complete.

Based on the above, the proposed project is not expected to adversely impact tribal cultural resources. In addition, the project applicant would be required to comply with the City's standard conditions of approval consistent with Section 18.60.090 of the Morgan Hill Municipal Code. Therefore, a ***less-than-significant*** impact to tribal cultural resources would occur.

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	✖	☐
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 wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	✖	☐
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?	☐	☐	✖	☐

Discussion

a-c. Brief discussions of the water, wastewater, stormwater drainage, electrical, natural gas, and telecommunications facilities that would serve the proposed project are included below.

Water

The City of Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include 14 groundwater wells, 10 potable water storage tanks, 10 booster stations, and over 160 miles of pressured pipes ranging from two to 14 inches in diameter. The City's water distribution system meets the needs of existing customers. The City has planned and constructed water projects in conjunction with new street construction in anticipation of future growth and water needs. The City of Morgan Hill has adopted the 2020 Urban Water Management Plan (UWMP), which analyzes the City's water supply and demand.

Table 14 presents the potable water supply and demand for a single dry year and multiple dry years for the City of Morgan Hill. Even after a three-year drought period, it is estimated that a surplus of 6,957 acre-feet of water would be available. Thus, according to the City's UWMP, the projected water supply exceeds the water demand for normal, single-dry, and multiple-dry years until at least 2045.[45]

[45] City of Morgan Hill. *2020 Urban Water Management Plan* [pg. 7-4 to 7-7]. 2021.

Table 14
Multiple Dry Years Supply and Demand Comparison
(Acre-Feet per Year[AFY])

		2025	2030	2035	2040	2045
First Year	Supply	19,344	19,890	20,514	21,060	21,606
	Demand	8,671	10,181	11,623	13,008	14,372
	Difference	10,673	9,709	8,891	8,052	7,234
Second Year	Supply	20,584	21,165	21,829	22,410	22,991
	Demand	8,671	10,181	11,623	13,008	14,372
	Difference	11,913	10,984	10,206	9,402	8,619
Third Year	Supply	19,096	19,635	20,251	20,790	21,329
	Demand	8,671	10,181	11,623	13,008	14,372
	Difference	10,425	9,454	8,628	7,782	6,957

Source: City of Morgan Hill 2020 UWMP, 2021.

While the proposed project would require a General Plan Amendment and Rezone, the site is currently designated for commercial use. Therefore, development of the site with urban uses has been generally anticipated by the City. Given the surplus of water that is anticipated within the UWMP, the type and intensity of growth that would be induced by a MU-F General Plan Amendment would not exceed the project site's associated water use such that the City would not have sufficient water supplies to serve the proposed development.

Therefore, the proposed project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, and sufficient water supplies would be available to serve the project from existing entitlements and resources.

Wastewater

The City of Morgan Hill sewer collection system consists of approximately 160 miles of gravity sewers, over 3,000 manholes, nearly 3 miles of force mains, and 14 lift stations. The sewer lines range in size from four inches to 30 inches in diameter and the piping system includes 26 siphons. The City's collection system moves the City's wastewater south to the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Facility (WWTF) located in southern Gilroy. SCRWA is a joint powers authority formed by the cities of Morgan Hill and Gilroy to collectively treat the wastewater of both cities.[46] The City of Morgan Hill has an allocation of 3.56 million gallons per day (MGD) from the WWTF. The average dry weather flow from the City of Morgan Hill was approximately 2.7 MGD in 2015.[47]

The proposed project would connect to an existing east to a sewer system located within the project site vicinity. Based on the current and projected sewage flows associated with the WWTF, the incremental increase in wastewater generation associated with the development of the proposed residences and retail space would not require the construction of new or expansion of existing wastewater treatment facilities, as adequate capacity is already sufficient to serve the proposed project. Furthermore, the type and intensity of growth that would be induced by the proposed project has been generally considered in the 2035 General Plan and associated wastewater generation has been

46 City of Morgan Hill. *City Council Staff Report 2163, Accept Report Regarding Wastewater System Needs and Rate Study Schedule.* February 6, 2019.

47 City of Morgan Hill. *2035 General Plan Draft EIR*. January 2016.

analyzed in the General Plan EIR. The General Plan EIR determined that impacts related to wastewater treatment capacity would be less than significant.

Stormwater

Issues related to stormwater infrastructure are discussed in Section X, Hydrology and Water Quality, of this IS/MND. As noted therein, the proposed project would not significantly increase stormwater flows into the City's existing system. The final drainage system design for the project will be subject to review and approval by the City of Morgan Hill City Engineer to confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Electricity, Natural Gas, and Telecommunications

Electricity would be provided by PG&E by way of existing electrical infrastructure in the project vicinity. Internet and telephone services would be provided by Frontier Communications, AT&T, Charter Communications, or a similar service provider operating within the City. The project would not require major upgrades to, or extension of, existing infrastructure. Thus, impacts to electricity and telecommunications infrastructure would be less than significant. The City prohibits the use of natural gas infrastructure in all newly constructed buildings, unless the project applicant establishes that it is not physically feasible to construct the building without natural gas infrastructure.

Conclusion

Based on the above, the type and intensity of growth that would be induced by the proposed project was generally considered in the 2035 General Plan and associated wastewater generation and water use has been analyzed in the General Plan EIR. Thus, the increase in water demand and wastewater generation associated with the proposed project would not be considered substantial. In addition, the project is located within a developed urban area and would not require major expansion or extension of existing water, wastewater, electrical, or telecommunications facilities in the project area.

Therefore, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater, electric power, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Furthermore, adequate wastewater capacity would be available to serve the project's projected demand in addition to the SCRWA's existing commitments. Thus, a ***less-than-significant*** impact would occur.

d,e. Recology South Valley provides solid waste and recycling services to the businesses and residents of the cities of Morgan Hill and Gilroy. Recology South Valley has contracted with the Monterey Regional Waste Management District to provide solid waste disposal services at the Monterey Peninsula Landfill and Materials Recovery Facility for the waste collected by Recology.[48] Pursuant to the Landfill's current Solid Waste Facility Permit, the

[48] Andi Borowski, Environmental Services Assistant, Morgan Hill Environmental Services Department. Personal communication [email] with Jesse Fahrney, Associate, Raney Planning and Management, Inc. July 26, 2022.

Landfill has a maximum permitted tonnage limit of 3,500 tons per day and a design capacity of 49,700,000 cubic yards.[49]

While the proposed project would require a General Plan Amendment and Rezone, the site is currently designated for commercial use. Therefore, development of the site with urban uses has been generally anticipated by the City. Considering the relatively small scale of the proposed project, the project would not produce enough solid waste for the landfill to exceed capacity. Thus, sufficient permitted capacity exists at the Monterey Peninsula Landfill and Materials Recovery Facility to accommodate the proposed project's incremental increase in solid waste disposal needs.

During project construction, as required by CBSC Section 4.408, the proposed project would be required to submit a Waste Management Plan to the City detailing on-site sorting of construction debris. Implementation of the Waste Management Plan would ensure that the proposed project meets established diversion requirements for reused or recycled construction waste.

Based on the above, the proposed project would comply with applicable federal, State, and local statutes and regulations related to solid waste, and a ***less-than-significant*** impact would occur related to solid waste.

[49] California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Monterey Peninsula Landfill (27-AA-0010)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2642?siteID=1976. Accessed October 2022.

XX. WILDFIRE. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	✖	☐

Discussion

a-d. As discussed in Section IX, Hazards and Hazardous Materials, of this IS/MND, the City's Wildland Urban Interface map indicates that the project site is not located in a High or Very High FHSZ.[50] While the residential area further to the west of the site past Del Monte Avenue is located within a Very High FHSZ, the area was classified as such in 2008, prior to buildout of the area with residential uses. Furthermore, the project site is separated approximately 1.28 miles way from the FHSZ by existing residential development and roadways. The project would be required to comply with all applicable requirements of the California Fire Code, as adopted by Chapter 15.44 of the City's Municipal Code, including installation of fire sprinkler systems.

As noted in Section IX, implementation of the proposed project would not result in any substantial modifications to the City's existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. The project would not conflict with the City's Emergency Operations Plan.[51] In addition, the project is not located on a substantial slope, and the project area does not include any existing features that would substantially increase fire risk for future residents, workers, or visitors. Given that the project site is located within a developed urban area and is situated adjacent to existing roads, water lines, and other utilities, the project would not result in substantial fire risks related to installation or maintenance of such infrastructure. Lastly, as discussed in Section VII, Geology and Soils, and Section X, Hydrology and Water Quality, of this IS/MND, development of the proposed project would not expose people or structures to significant risks related to flooding or landslides.

Based on the above, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and ***no impact*** would occur.

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50 City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.
51 City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	✖	☐	☐

Discussion

b. As discussed in Section IV, Biological Resources, of this IS/MND, the proposed project would be required to implement mitigation measures to minimize potential impacts to burrowing owl and nesting migratory birds and raptors protected by the MBTA. In addition, the site does not contain known historical or cultural resources. Although unlikely, the possibility exists that subsurface excavation of the site during grading and other construction activities could unearth deposits of cultural significance. However, this IS/MND explains how the City's Municipal Code requires standard measures for development projects that would ensure any impacts to such resources would be less than significant. Therefore, the proposed project's impact related to degradation of the quality of the environment, substantial reduction of habitat or plant and wildlife species, and elimination of important examples of the major periods of California history or prehistory would be ***less than significant with mitigation incorporated***.

c. As discussed in Section XI, Land Use and Planning, of this IS/MND, the proposed project would be consistent with the site's current MU-F General Plan land use and zoning designations following approval of the proposed General Plan Amendment and Rezone. As such, the type and intensity of growth that would be induced by the proposed project were generally anticipated in the 2035 General Plan and associated cumulative environmental effects were analyzed in the General Plan EIR. Furthermore, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level with implementation of project-specific mitigation measures and compliance with applicable General Plan policies. When viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not contribute to cumulative impacts in the City of Morgan Hill, and the project's contribution to the cumulative impact would be ***less than significant with mitigation incorporated***.

d. The project site would be developed in a generally urbanized and built-up area of the City of Morgan Hill. As demonstrated in Section III, Air Quality, Section IX, Hazards and Hazardous Materials, and Section XIII, Noise, development of the proposed project would not be expected to result in substantial adverse impacts to human beings, either directly or indirectly. The potential for substantial environmental effects on human beings is addressed within this IS/MND and all impacts have been identified as less-than-significant or less-than-significant with the incorporation of mitigation measures. As such, the impact would be ***less than significant with mitigation incorporated***.

Appendix A

Air Quality and Greenhouse Gas Modeling Results

Appendix A

Air Quality and Greenhouse Gas Modeling Results

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

The Gates Mixed-Use Project

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	4.01	1000sqft	0.09	4,010.00	0
Parking Lot	63.00	Space	0.57	25,200.00	0
Condo/Townhouse	49.00	Dwelling Unit	3.15	49,000.00	140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjusted to be representative of total project site acreage.

Construction Phase - Construction phase timing based on applicant provided AQ Questionnaire. Architectural coating assumed to start two weeks after building construction and last for the same duration.

Grading - Based on Preliminary Grading Plan prepared for the proposed project.

Vehicle Trips - Trip rates adjusted to be consistent with trip generation report provided by Hexagon Consultants.

Woodstoves - Based on applicant provided AQ Questionnaire. The proposed residential units would not include fire places.

Mobile Land Use Mitigation - Based on applicant provided AQ Questionnaire.

Water Mitigation - Based on applicant provided AQ Questionnaire.

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

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	380.00
tblConstructionPhase	NumDays	230.00	380.00
tblConstructionPhase	NumDays	8.00	60.00
tblConstructionPhase	NumDays	5.00	20.00
tblFireplaces	NumberGas	7.35	0.00
tblFireplaces	NumberNoFireplace	1.96	49.00
tblFireplaces	NumberWood	8.33	0.00
tblGrading	MaterialExported	0.00	3,926.00
tblLandUse	LotAcreage	3.06	3.15
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	82.00	100.00
tblVehicleTrips	ST_TR	8.14	10.41
tblVehicleTrips	ST_TR	1.64	82.17
tblVehicleTrips	SU_TR	6.28	10.41
tblVehicleTrips	SU_TR	0.76	82.17
tblVehicleTrips	WD_TR	7.32	10.41
tblVehicleTrips	WD_TR	11.07	82.17

2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1406	1.1802	1.0614	2.2000e-003	0.4276	0.0522	0.4798	0.2087	0.0483	0.2571	0.0000	194.3668	194.3668	0.0506	3.0700e-003	196.5462
2024	0.4912	1.9905	2.5248	4.6500e-003	0.0666	0.0890	0.1555	0.0179	0.0841	0.1021	0.0000	406.9370	406.9370	0.0754	4.9300e-003	410.2906
2025	0.1667	0.6137	0.8320	1.5400e-003	0.0222	0.0254	0.0476	5.9700e-003	0.0240	0.0300	0.0000	134.6508	134.6508	0.0246	1.5800e-003	135.7370
Maximum	**0.4912**	**1.9905**	**2.5248**	**4.6500e-003**	**0.4276**	**0.0890**	**0.4798**	**0.2087**	**0.0841**	**0.2571**	**0.0000**	**406.9370**	**406.9370**	**0.0754**	**4.9300e-003**	**410.2906**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1406	1.1802	1.0614	2.2000e-003	0.4276	0.0522	0.4798	0.2087	0.0483	0.2571	0.0000	194.3666	194.3666	0.0506	3.0700e-003	196.5460
2024	0.4912	1.9905	2.5248	4.6500e-003	0.0666	0.0890	0.1555	0.0179	0.0841	0.1021	0.0000	406.9366	406.9366	0.0754	4.9300e-003	410.2901
2025	0.1667	0.6137	0.8320	1.5400e-003	0.0222	0.0254	0.0476	5.9700e-003	0.0240	0.0300	0.0000	134.6507	134.6507	0.0246	1.5800e-003	135.7368
Maximum	**0.4912**	**1.9905**	**2.5248**	**4.6500e-003**	**0.4276**	**0.0890**	**0.4798**	**0.2087**	**0.0841**	**0.2571**	**0.0000**	**406.9366**	**406.9366**	**0.0754**	**4.9300e-003**	**410.2901**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-1-2023**	**9-30-2023**	0.7780	0.7780
2	**10-1-2023**	**12-31-2023**	0.5541	0.5541
3	**1-1-2024**	**3-31-2024**	0.6166	0.6166
4	**4-1-2024**	**6-30-2024**	0.6151	0.6151
5	**7-1-2024**	**9-30-2024**	0.6219	0.6219
6	**10-1-2024**	**12-31-2024**	0.6234	0.6234
7	**1-1-2025**	**3-31-2025**	0.5719	0.5719
8	**4-1-2025**	**6-30-2025**	0.2067	0.2067
		Highest	0.7780	0.7780

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2606	4.7600e-003	0.3991	1.3000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.7642	0.5955	1.3598	4.1400e-003	0.0000	1.4634
Energy	5.0100e-003	0.0431	0.0200	2.7000e-004		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	79.3706	79.3706	5.7700e-003	1.4900e-003	79.9597
Mobile	0.3624	0.4220	3.5255	7.5900e-003	0.8439	5.5500e-003	0.8494	0.2255	5.1700e-003	0.2306	0.0000	717.6987	717.6987	0.0440	0.0331	728.6590
Waste						0.0000	0.0000		0.0000	0.0000	5.3326	0.0000	5.3326	0.3152	0.0000	13.2112
Water						0.0000	0.0000		0.0000	0.0000	1.2390	2.7484	3.9874	0.1277	3.0600e-003	8.0913
Total	**0.6280**	**0.4699**	**3.9447**	**7.9900e-003**	**0.8439**	**0.0167**	**0.8606**	**0.2255**	**0.0164**	**0.2418**	**7.3358**	**800.4132**	**807.7490**	**0.4968**	**0.0376**	**831.3845**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2606	4.7600e-003	0.3991	1.3000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.7642	0.5955	1.3598	4.1400e-003	0.0000	1.4634
Energy	5.0100e-003	0.0431	0.0200	2.7000e-004		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	79.3706	79.3706	5.7700e-003	1.4900e-003	79.9597
Mobile	0.3413	0.3834	3.2073	6.7200e-003	0.7443	4.9600e-003	0.7493	0.1989	4.6200e-003	0.2035	0.0000	635.3232	635.3232	0.0407	0.0301	645.3116
Waste						0.0000	0.0000		0.0000	0.0000	5.3326	0.0000	5.3326	0.3152	0.0000	13.2112
Water						0.0000	0.0000		0.0000	0.0000	0.9912	2.2780	3.2692	0.1022	2.4500e-003	6.5531
Total	**0.6069**	**0.4312**	**3.6264**	**7.1200e-003**	**0.7443**	**0.0162**	**0.7605**	**0.1989**	**0.0158**	**0.2147**	**7.0880**	**717.5674**	**724.6553**	**0.4679**	**0.0340**	**746.4990**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.35**	**8.23**	**8.07**	**10.89**	**11.80**	**3.52**	**11.64**	**11.80**	**3.36**	**11.23**	**3.38**	**10.35**	**10.29**	**5.80**	**9.56**	**10.21**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2023	7/28/2023	5	20	
2	Grading	Grading	7/29/2023	10/20/2023	5	60	
3	Paving	Paving	10/21/2023	11/15/2023	5	18	

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

4	Building Construction	Building Construction	11/16/2023	4/30/2025	5	380	
5	Architectural Coating	Architectural Coating	11/30/2023	5/14/2025	5	380	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 60

Acres of Paving: 0.57

Residential Indoor: 99,225; Residential Outdoor: 33,075; Non-Residential Indoor: 6,015; Non-Residential Outdoor: 2,005; Striped Parking Area: 1,512 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	491.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	47.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	**0.0266**	**0.2752**	**0.1824**	**3.8000e-004**	**0.1966**	**0.0127**	**0.2092**	**0.1010**	**0.0117**	**0.1127**	**0.0000**	**33.4507**	**33.4507**	**0.0108**	**0.0000**	**33.7212**

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

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.9900e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1147	1.1147	3.0000e-005	3.0000e-005	1.1247
Total	**4.6000e-004**	**3.2000e-004**	**3.9900e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1147**	**1.1147**	**3.0000e-005**	**3.0000e-005**	**1.1247**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	**0.0266**	**0.2752**	**0.1824**	**3.8000e-004**	**0.1966**	**0.0127**	**0.2092**	**0.1010**	**0.0117**	**0.1127**	**0.0000**	**33.4507**	**33.4507**	**0.0108**	**0.0000**	**33.7211**

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.9900e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1147	1.1147	3.0000e-005	3.0000e-005	1.1247
Total	**4.6000e-004**	**3.2000e-004**	**3.9900e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1147**	**1.1147**	**3.0000e-005**	**3.0000e-005**	**1.1247**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2127	0.0000	0.2127	0.1028	0.0000	0.1028	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0513	0.5381	0.4425	8.9000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	78.1818	78.1818	0.0253	0.0000	78.8140
Total	**0.0513**	**0.5381**	**0.4425**	**8.9000e-004**	**0.2127**	**0.0233**	**0.2360**	**0.1028**	**0.0214**	**0.1242**	**0.0000**	**78.1818**	**78.1818**	**0.0253**	**0.0000**	**78.8140**

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.1000e-004	0.0333	7.8300e-003	1.5000e-004	4.1500e-003	2.7000e-004	4.4200e-003	1.1400e-003	2.6000e-004	1.4000e-003	0.0000	14.6513	14.6513	4.8000e-004	2.3200e-003	15.3552
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1500e-003	7.9000e-004	9.9800e-003	3.0000e-005	3.5600e-003	2.0000e-005	3.5700e-003	9.5000e-004	2.0000e-005	9.6000e-004	0.0000	2.7869	2.7869	8.0000e-005	8.0000e-005	2.8116
Total	**1.6600e-003**	**0.0341**	**0.0178**	**1.8000e-004**	**7.7100e-003**	**2.9000e-004**	**7.9900e-003**	**2.0900e-003**	**2.8000e-004**	**2.3600e-003**	**0.0000**	**17.4381**	**17.4381**	**5.6000e-004**	**2.4000e-003**	**18.1668**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2127	0.0000	0.2127	0.1028	0.0000	0.1028	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0513	0.5381	0.4425	8.9000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	78.1818	78.1818	0.0253	0.0000	78.8139
Total	**0.0513**	**0.5381**	**0.4425**	**8.9000e-004**	**0.2127**	**0.0233**	**0.2360**	**0.1028**	**0.0214**	**0.1242**	**0.0000**	**78.1818**	**78.1818**	**0.0253**	**0.0000**	**78.8139**

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

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.1000e-004	0.0333	7.8300e-003	1.5000e-004	4.1500e-003	2.7000e-004	4.4200e-003	1.1400e-003	2.6000e-004	1.4000e-003	0.0000	14.6513	14.6513	4.8000e-004	2.3200e-003	15.3552
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1500e-003	7.9000e-004	9.9800e-003	3.0000e-005	3.5600e-003	2.0000e-005	3.5700e-003	9.5000e-004	2.0000e-005	9.6000e-004	0.0000	2.7869	2.7869	8.0000e-005	8.0000e-005	2.8116
Total	**1.6600e-003**	**0.0341**	**0.0178**	**1.8000e-004**	**7.7100e-003**	**2.9000e-004**	**7.9900e-003**	**2.0900e-003**	**2.8000e-004**	**2.3600e-003**	**0.0000**	**17.4381**	**17.4381**	**5.6000e-004**	**2.4000e-003**	**18.1668**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	7.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0100e-003**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

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

3.4 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.9900e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1147	1.1147	3.0000e-005	3.0000e-005	1.1247
Total	**4.6000e-004**	**3.2000e-004**	**3.9900e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1147**	**1.1147**	**3.0000e-005**	**3.0000e-005**	**1.1247**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	7.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0100e-003**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

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

3.4 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.9900e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1147	1.1147	3.0000e-005	3.0000e-005	1.1247
Total	**4.6000e-004**	**3.2000e-004**	**3.9900e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1147**	**1.1147**	**3.0000e-005**	**3.0000e-005**	**1.1247**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0252	0.2302	0.2599	4.3000e-004		0.0112	0.0112		0.0105	0.0105	0.0000	37.0888	37.0888	8.8200e-003	0.0000	37.3093
Total	**0.0252**	**0.2302**	**0.2599**	**4.3000e-004**		**0.0112**	**0.0112**		**0.0105**	**0.0105**	**0.0000**	**37.0888**	**37.0888**	**8.8200e-003**	**0.0000**	**37.3093**

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

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	7.1100e-003	2.2300e-003	3.0000e-005	1.0500e-003	4.0000e-005	1.0900e-003	3.0000e-004	4.0000e-005	3.4000e-004	0.0000	3.1583	3.1583	6.0000e-005	4.7000e-004	3.2992
Worker	1.9200e-003	1.3200e-003	0.0167	5.0000e-005	5.9400e-003	3.0000e-005	5.9700e-003	1.5800e-003	3.0000e-005	1.6100e-003	0.0000	4.6571	4.6571	1.3000e-004	1.3000e-004	4.6986
Total	**2.0900e-003**	**8.4300e-003**	**0.0189**	**8.0000e-005**	**6.9900e-003**	**7.0000e-005**	**7.0600e-003**	**1.8800e-003**	**7.0000e-005**	**1.9500e-003**	**0.0000**	**7.8155**	**7.8155**	**1.9000e-004**	**6.0000e-004**	**7.9977**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0252	0.2302	0.2599	4.3000e-004		0.0112	0.0112		0.0105	0.0105	0.0000	37.0887	37.0887	8.8200e-003	0.0000	37.3093
Total	**0.0252**	**0.2302**	**0.2599**	**4.3000e-004**		**0.0112**	**0.0112**		**0.0105**	**0.0105**	**0.0000**	**37.0887**	**37.0887**	**8.8200e-003**	**0.0000**	**37.3093**

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

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	7.1100e-003	2.2300e-003	3.0000e-005	1.0500e-003	4.0000e-005	1.0900e-003	3.0000e-004	4.0000e-005	3.4000e-004	0.0000	3.1583	3.1583	6.0000e-005	4.7000e-004	3.2992
Worker	1.9200e-003	1.3200e-003	0.0167	5.0000e-005	5.9400e-003	3.0000e-005	5.9700e-003	1.5800e-003	3.0000e-005	1.6100e-003	0.0000	4.6571	4.6571	1.3000e-004	1.3000e-004	4.6986
Total	**2.0900e-003**	**8.4300e-003**	**0.0189**	**8.0000e-005**	**6.9900e-003**	**7.0000e-005**	**7.0600e-003**	**1.8800e-003**	**7.0000e-005**	**1.9500e-003**	**0.0000**	**7.8155**	**7.8155**	**1.9000e-004**	**6.0000e-004**	**7.9977**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3600e-003	0.0583	0.0178	2.6000e-004	8.6000e-003	3.4000e-004	8.9400e-003	2.4900e-003	3.3000e-004	2.8100e-003	0.0000	25.4559	25.4559	5.2000e-004	3.7700e-003	26.5910
Worker	0.0148	9.6300e-003	0.1276	4.0000e-004	0.0487	2.4000e-004	0.0489	0.0129	2.2000e-004	0.0132	0.0000	37.1898	37.1898	9.9000e-004	9.7000e-004	37.5052
Total	**0.0161**	**0.0679**	**0.1454**	**6.6000e-004**	**0.0573**	**5.8000e-004**	**0.0578**	**0.0154**	**5.5000e-004**	**0.0160**	**0.0000**	**62.6456**	**62.6456**	**1.5100e-003**	**4.7400e-003**	**64.0961**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3600e-003	0.0583	0.0178	2.6000e-004	8.6000e-003	3.4000e-004	8.9400e-003	2.4900e-003	3.3000e-004	2.8100e-003	0.0000	25.4559	25.4559	5.2000e-004	3.7700e-003	26.5910
Worker	0.0148	9.6300e-003	0.1276	4.0000e-004	0.0487	2.4000e-004	0.0489	0.0129	2.2000e-004	0.0132	0.0000	37.1898	37.1898	9.9000e-004	9.7000e-004	37.5052
Total	**0.0161**	**0.0679**	**0.1454**	**6.6000e-004**	**0.0573**	**5.8000e-004**	**0.0578**	**0.0154**	**5.5000e-004**	**0.0160**	**0.0000**	**62.6456**	**62.6456**	**1.5100e-003**	**4.7400e-003**	**64.0961**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213	0.0000	99.7254	99.7254	0.0234	0.0000	100.3114
Total	**0.0588**	**0.5362**	**0.6916**	**1.1600e-003**		**0.0227**	**0.0227**		**0.0213**	**0.0213**	**0.0000**	**99.7254**	**99.7254**	**0.0234**	**0.0000**	**100.3114**

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

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3000e-004	0.0191	5.7500e-003	8.0000e-005	2.8200e-003	1.1000e-004	2.9300e-003	8.2000e-004	1.1000e-004	9.2000e-004	0.0000	8.2071	8.2071	1.7000e-004	1.2100e-003	8.5730
Worker	4.5500e-003	2.8500e-003	0.0393	1.3000e-004	0.0160	8.0000e-005	0.0160	4.2500e-003	7.0000e-005	4.3200e-003	0.0000	11.9157	11.9157	3.0000e-004	3.0000e-004	12.0125
Total	**4.9800e-003**	**0.0219**	**0.0451**	**2.1000e-004**	**0.0188**	**1.9000e-004**	**0.0190**	**5.0700e-003**	**1.8000e-004**	**5.2400e-003**	**0.0000**	**20.1228**	**20.1228**	**4.7000e-004**	**1.5100e-003**	**20.5855**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213	0.0000	99.7253	99.7253	0.0234	0.0000	100.3113
Total	**0.0588**	**0.5362**	**0.6916**	**1.1600e-003**		**0.0227**	**0.0227**		**0.0213**	**0.0213**	**0.0000**	**99.7253**	**99.7253**	**0.0234**	**0.0000**	**100.3113**

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

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3000e-004	0.0191	5.7500e-003	8.0000e-005	2.8200e-003	1.1000e-004	2.9300e-003	8.2000e-004	1.1000e-004	9.2000e-004	0.0000	8.2071	8.2071	1.7000e-004	1.2100e-003	8.5730
Worker	4.5500e-003	2.8500e-003	0.0393	1.3000e-004	0.0160	8.0000e-005	0.0160	4.2500e-003	7.0000e-005	4.3200e-003	0.0000	11.9157	11.9157	3.0000e-004	3.0000e-004	12.0125
Total	**4.9800e-003**	**0.0219**	**0.0451**	**2.1000e-004**	**0.0188**	**1.9000e-004**	**0.0190**	**5.0700e-003**	**1.8000e-004**	**5.2400e-003**	**0.0000**	**20.1228**	**20.1228**	**4.7000e-004**	**1.5100e-003**	**20.5855**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1100e-003	0.0143	0.0199	3.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	2.8086	2.8086	1.7000e-004	0.0000	2.8128
Total	**0.0236**	**0.0143**	**0.0199**	**3.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**2.8086**	**2.8086**	**1.7000e-004**	**0.0000**	**2.8128**

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

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.7000e-004	2.2000e-003	1.0000e-005	7.8000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6131	0.6131	2.0000e-005	2.0000e-005	0.6186
Total	**2.5000e-004**	**1.7000e-004**	**2.2000e-003**	**1.0000e-005**	**7.8000e-004**	**0.0000**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6131**	**0.6131**	**2.0000e-005**	**2.0000e-005**	**0.6186**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1100e-003	0.0143	0.0199	3.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	2.8086	2.8086	1.7000e-004	0.0000	2.8128
Total	**0.0236**	**0.0143**	**0.0199**	**3.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**2.8086**	**2.8086**	**1.7000e-004**	**0.0000**	**2.8128**

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

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.7000e-004	2.2000e-003	1.0000e-005	7.8000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6131	0.6131	2.0000e-005	2.0000e-005	0.6186
Total	**2.5000e-004**	**1.7000e-004**	**2.2000e-003**	**1.0000e-005**	**7.8000e-004**	**0.0000**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6131**	**0.6131**	**2.0000e-005**	**2.0000e-005**	**0.6186**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2559					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	**0.2795**	**0.1597**	**0.2371**	**3.9000e-004**		**7.9800e-003**	**7.9800e-003**		**7.9800e-003**	**7.9800e-003**	**0.0000**	**33.4476**	**33.4476**	**1.8800e-003**	**0.0000**	**33.4947**

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

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8200e-003	1.8400e-003	0.0244	8.0000e-005	9.3200e-003	5.0000e-005	9.3600e-003	2.4800e-003	4.0000e-005	2.5200e-003	0.0000	7.1214	7.1214	1.9000e-004	1.9000e-004	7.1818
Total	**2.8200e-003**	**1.8400e-003**	**0.0244**	**8.0000e-005**	**9.3200e-003**	**5.0000e-005**	**9.3600e-003**	**2.4800e-003**	**4.0000e-005**	**2.5200e-003**	**0.0000**	**7.1214**	**7.1214**	**1.9000e-004**	**1.9000e-004**	**7.1818**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2559					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	**0.2795**	**0.1597**	**0.2371**	**3.9000e-004**		**7.9800e-003**	**7.9800e-003**		**7.9800e-003**	**7.9800e-003**	**0.0000**	**33.4476**	**33.4476**	**1.8800e-003**	**0.0000**	**33.4947**

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

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8200e-003	1.8400e-003	0.0244	8.0000e-005	9.3200e-003	5.0000e-005	9.3600e-003	2.4800e-003	4.0000e-005	2.5200e-003	0.0000	7.1214	7.1214	1.9000e-004	1.9000e-004	7.1818
Total	**2.8200e-003**	**1.8400e-003**	**0.0244**	**8.0000e-005**	**9.3200e-003**	**5.0000e-005**	**9.3600e-003**	**2.4800e-003**	**4.0000e-005**	**2.5200e-003**	**0.0000**	**7.1214**	**7.1214**	**1.9000e-004**	**1.9000e-004**	**7.1818**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0938					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2000e-003	0.0550	0.0868	1.4000e-004		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.0000	12.2556	12.2556	6.7000e-004	0.0000	12.2723
Total	**0.1020**	**0.0550**	**0.0868**	**1.4000e-004**		**2.4700e-003**	**2.4700e-003**		**2.4700e-003**	**2.4700e-003**	**0.0000**	**12.2556**	**12.2556**	**6.7000e-004**	**0.0000**	**12.2723**

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

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	6.1000e-004	8.4000e-003	3.0000e-005	3.4100e-003	2.0000e-005	3.4300e-003	9.1000e-004	1.0000e-005	9.2000e-004	0.0000	2.5470	2.5470	6.0000e-005	6.0000e-005	2.5677
Total	**9.7000e-004**	**6.1000e-004**	**8.4000e-003**	**3.0000e-005**	**3.4100e-003**	**2.0000e-005**	**3.4300e-003**	**9.1000e-004**	**1.0000e-005**	**9.2000e-004**	**0.0000**	**2.5470**	**2.5470**	**6.0000e-005**	**6.0000e-005**	**2.5677**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0938					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2000e-003	0.0550	0.0868	1.4000e-004		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.0000	12.2556	12.2556	6.7000e-004	0.0000	12.2723
Total	**0.1020**	**0.0550**	**0.0868**	**1.4000e-004**		**2.4700e-003**	**2.4700e-003**		**2.4700e-003**	**2.4700e-003**	**0.0000**	**12.2556**	**12.2556**	**6.7000e-004**	**0.0000**	**12.2723**

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

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	6.1000e-004	8.4000e-003	3.0000e-005	3.4100e-003	2.0000e-005	3.4300e-003	9.1000e-004	1.0000e-005	9.2000e-004	0.0000	2.5470	2.5470	6.0000e-005	6.0000e-005	2.5677
Total	**9.7000e-004**	**6.1000e-004**	**8.4000e-003**	**3.0000e-005**	**3.4100e-003**	**2.0000e-005**	**3.4300e-003**	**9.1000e-004**	**1.0000e-005**	**9.2000e-004**	**0.0000**	**2.5470**	**2.5470**	**6.0000e-005**	**6.0000e-005**	**2.5677**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3413	0.3834	3.2073	6.7200e-003	0.7443	4.9600e-003	0.7493	0.1989	4.6200e-003	0.2035	0.0000	635.3232	635.3232	0.0407	0.0301	645.3116
Unmitigated	0.3624	0.4220	3.5255	7.5900e-003	0.8439	5.5500e-003	0.8494	0.2255	5.1700e-003	0.2306	0.0000	717.6987	717.6987	0.0440	0.0331	728.6590

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	510.09	510.09	510.09	1,326,818	1,170,253
Office Park	329.50	329.50	329.50	962,627	849,037
Parking Lot	0.00	0.00	0.00		
Total	839.59	839.59	839.59	2,289,445	2,019,290

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820
Office Park	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820

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

Parking Lot	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	29.7652	29.7652	4.8200e-003	5.8000e-004	30.0595
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	29.7652	29.7652	4.8200e-003	5.8000e-004	30.0595
NaturalGas Mitigated	5.0100e-003	0.0431	0.0200	2.7000e-004		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	49.6054	49.6054	9.5000e-004	9.1000e-004	49.9002
NaturalGas Unmitigated	5.0100e-003	0.0431	0.0200	2.7000e-004		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	49.6054	49.6054	9.5000e-004	9.1000e-004	49.9002

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	845721	4.5600e-003	0.0390	0.0166	2.5000e-004		3.1500e-003	3.1500e-003		3.1500e-003	3.1500e-003	0.0000	45.1309	45.1309	8.7000e-004	8.3000e-004	45.3991
Office Park	83849.1	4.5000e-004	4.1100e-003	3.4500e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.4745	4.4745	9.0000e-005	8.0000e-005	4.5011
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**5.0100e-003**	**0.0431**	**0.0200**	**2.7000e-004**		**3.4600e-003**	**3.4600e-003**		**3.4600e-003**	**3.4600e-003**	**0.0000**	**49.6054**	**49.6054**	**9.6000e-004**	**9.1000e-004**	**49.9002**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	845721	4.5600e-003	0.0390	0.0166	2.5000e-004		3.1500e-003	3.1500e-003		3.1500e-003	3.1500e-003	0.0000	45.1309	45.1309	8.7000e-004	8.3000e-004	45.3991
Office Park	83849.1	4.5000e-004	4.1100e-003	3.4500e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.4745	4.4745	9.0000e-005	8.0000e-005	4.5011
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**5.0100e-003**	**0.0431**	**0.0200**	**2.7000e-004**		**3.4600e-003**	**3.4600e-003**		**3.4600e-003**	**3.4600e-003**	**0.0000**	**49.6054**	**49.6054**	**9.6000e-004**	**9.1000e-004**	**49.9002**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	237575	21.9813	3.5600e-003	4.3000e-004	22.1987
Office Park	75307.8	6.9678	1.1300e-003	1.4000e-004	7.0367
Parking Lot	8820	0.8161	1.3000e-004	2.0000e-005	0.8241
Total		**29.7652**	**4.8200e-003**	**5.9000e-004**	**30.0595**

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	237575	21.9813	3.5600e-003	4.3000e-004	22.1987
Office Park	75307.8	6.9678	1.1300e-003	1.4000e-004	7.0367
Parking Lot	8820	0.8161	1.3000e-004	2.0000e-005	0.8241
Total		**29.7652**	**4.8200e-003**	**5.9000e-004**	**30.0595**

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2606	4.7600e-003	0.3991	1.3000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.7642	0.5955	1.3598	4.1400e-003	0.0000	1.4634
Unmitigated	0.2606	4.7600e-003	0.3991	1.3000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.7642	0.5955	1.3598	4.1400e-003	0.0000	1.4634

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2087					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.8500e-003	5.7000e-004	0.0350	1.1000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.7642	0.0000	0.7642	3.5700e-003	0.0000	0.8536
Landscaping	0.0110	4.1900e-003	0.3641	2.0000e-005		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	0.5955	0.5955	5.7000e-004	0.0000	0.6098
Total	**0.2606**	**4.7600e-003**	**0.3991**	**1.3000e-004**		**7.7300e-003**	**7.7300e-003**		**7.7300e-003**	**7.7300e-003**	**0.7642**	**0.5955**	**1.3598**	**4.1400e-003**	**0.0000**	**1.4634**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2087					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.8500e-003	5.7000e-004	0.0350	1.1000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.7642	0.0000	0.7642	3.5700e-003	0.0000	0.8536
Landscaping	0.0110	4.1900e-003	0.3641	2.0000e-005		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	0.5955	0.5955	5.7000e-004	0.0000	0.6098
Total	**0.2606**	**4.7600e-003**	**0.3991**	**1.3000e-004**		**7.7300e-003**	**7.7300e-003**		**7.7300e-003**	**7.7300e-003**	**0.7642**	**0.5955**	**1.3598**	**4.1400e-003**	**0.0000**	**1.4634**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.2692	0.1022	2.4500e-003	6.5531
Unmitigated	3.9874	0.1277	3.0600e-003	8.0913

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	3.19255 / 2.01269	3.2630	0.1044	2.5000e-003	6.6179
Office Park	0.712712 / 0.436824	0.7244	0.0233	5.6000e-004	1.4733
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3.9874**	**0.1277**	**3.0600e-003**	**8.0913**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	2.55404 / 1.81142	2.6756	0.0835	2.0000e-003	5.3602
Office Park	0.57017 / 0.393141	0.5937	0.0187	4.5000e-004	1.1929
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3.2692**	**0.1022**	**2.4500e-003**	**6.5531**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.3326	0.3152	0.0000	13.2112
Unmitigated	5.3326	0.3152	0.0000	13.2112

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	22.54	4.5754	0.2704	0.0000	11.3354
Office Park	3.73	0.7572	0.0448	0.0000	1.8758
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**5.3326**	**0.3152**	**0.0000**	**13.2112**

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	22.54	4.5754	0.2704	0.0000	11.3354
Office Park	3.73	0.7572	0.0448	0.0000	1.8758
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**5.3326**	**0.3152**	**0.0000**	**13.2112**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

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

11.0 Vegetation

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

The Gates Mixed-Use Project

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	4.01	1000sqft	0.09	4,010.00	0
Parking Lot	63.00	Space	0.57	25,200.00	0
Condo/Townhouse	49.00	Dwelling Unit	3.15	49,000.00	140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjusted to be representative of total project site acreage.

Construction Phase - Construction phase timing based on applicant provided AQ Questionnaire. Architectural coating assumed to start two weeks after building construction and last for the same duration.

Grading - Based on Preliminary Grading Plan prepared for the proposed project.

Vehicle Trips - Trip rates adjusted to be consistent with trip generation report provided by Hexagon Consultants.

Woodstoves - Based on applicant provided AQ Questionnaire. The proposed residential units would not include fire places.

Mobile Land Use Mitigation - Based on applicant provided AQ Questionnaire.

Water Mitigation - Based on applicant provided AQ Questionnaire.

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

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	380.00
tblConstructionPhase	NumDays	230.00	380.00
tblConstructionPhase	NumDays	8.00	60.00
tblConstructionPhase	NumDays	5.00	20.00
tblFireplaces	NumberGas	7.35	0.00
tblFireplaces	NumberNoFireplace	1.96	49.00
tblFireplaces	NumberWood	8.33	0.00
tblGrading	MaterialExported	0.00	3,926.00
tblLandUse	LotAcreage	3.06	3.15
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	82.00	100.00
tblVehicleTrips	ST_TR	8.14	10.41
tblVehicleTrips	ST_TR	1.64	82.17
tblVehicleTrips	SU_TR	6.28	10.41
tblVehicleTrips	SU_TR	0.76	82.17
tblVehicleTrips	WD_TR	7.32	10.41
tblVehicleTrips	WD_TR	11.07	82.17

2.0 Emissions Summary

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.8799	27.5521	19.5308	0.0394	19.8049	1.2668	21.0716	10.1417	1.1654	11.3071	0.0000	3,818.5002	3,818.5002	1.1959	0.0879	3,849.3242
2024	3.7575	15.1694	19.3587	0.0358	0.5278	0.6790	1.2068	0.1415	0.6423	0.7838	0.0000	3,449.2426	3,449.2426	0.6339	0.0407	3,477.2102
2025	3.6346	14.1127	19.1948	0.0356	0.5278	0.5838	1.1115	0.1415	0.5522	0.6937	0.0000	3,436.6476	3,436.6476	0.6291	0.0395	3,464.1558
Maximum	**3.8799**	**27.5521**	**19.5308**	**0.0394**	**19.8049**	**1.2668**	**21.0716**	**10.1417**	**1.1654**	**11.3071**	**0.0000**	**3,818.5002**	**3,818.5002**	**1.1959**	**0.0879**	**3,849.3242**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.8799	27.5521	19.5308	0.0394	19.8049	1.2668	21.0716	10.1417	1.1654	11.3071	0.0000	3,818.5002	3,818.5002	1.1959	0.0879	3,849.3242
2024	3.7575	15.1694	19.3587	0.0358	0.5278	0.6790	1.2068	0.1415	0.6423	0.7838	0.0000	3,449.2426	3,449.2426	0.6339	0.0407	3,477.2102
2025	3.6346	14.1127	19.1948	0.0356	0.5278	0.5838	1.1115	0.1415	0.5522	0.6937	0.0000	3,436.6476	3,436.6476	0.6291	0.0395	3,464.1558
Maximum	**3.8799**	**27.5521**	**19.5308**	**0.0394**	**19.8049**	**1.2668**	**21.0716**	**10.1417**	**1.1654**	**11.3071**	**0.0000**	**3,818.5002**	**3,818.5002**	**1.1959**	**0.0879**	**3,849.3242**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0143	0.1274	9.0012	0.0164		0.8309	0.8309		0.8309	0.8309	119.3244	7.2937	126.6181	0.5648	0.0000	140.7387
Energy	0.0275	0.2361	0.1098	1.5000e-003		0.0190	0.0190		0.0190	0.0190		299.6198	299.6198	5.7400e-003	5.4900e-003	301.4003
Mobile	2.2001	2.1344	19.4179	0.0439	4.8190	0.0305	4.8495	1.2835	0.0284	1.3119		4,582.3037	4,582.3037	0.2509	0.1905	4,645.3464
Total	**4.2419**	**2.4979**	**28.5289**	**0.0618**	**4.8190**	**0.8804**	**5.6993**	**1.2835**	**0.8783**	**2.1618**	**119.3244**	**4,889.2172**	**5,008.5416**	**0.8214**	**0.1960**	**5,087.4854**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0143	0.1274	9.0012	0.0164		0.8309	0.8309		0.8309	0.8309	119.3244	7.2937	126.6181	0.5648	0.0000	140.7387
Energy	0.0275	0.2361	0.1098	1.5000e-003		0.0190	0.0190		0.0190	0.0190		299.6198	299.6198	5.7400e-003	5.4900e-003	301.4003
Mobile	2.0868	1.9385	17.5523	0.0389	4.2503	0.0273	4.2776	1.1321	0.0254	1.1575		4,055.3831	4,055.3831	0.2310	0.1732	4,112.7570
Total	**4.1286**	**2.3020**	**26.6633**	**0.0568**	**4.2503**	**0.8771**	**5.1275**	**1.1321**	**0.8753**	**2.0073**	**119.3244**	**4,362.2967**	**4,481.6210**	**0.8015**	**0.1786**	**4,554.8961**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.67**	**7.84**	**6.54**	**8.17**	**11.80**	**0.37**	**10.03**	**11.80**	**0.34**	**7.15**	**0.00**	**10.78**	**10.52**	**2.42**	**8.86**	**10.47**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2023	7/28/2023	5	20	
2	Grading	Grading	7/29/2023	10/20/2023	5	60	
3	Paving	Paving	10/21/2023	11/15/2023	5	18	
4	Building Construction	Building Construction	11/16/2023	4/30/2025	5	380	
5	Architectural Coating	Architectural Coating	11/30/2023	5/14/2025	5	380	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 60

Acres of Paving: 0.57

Residential Indoor: 99,225; Residential Outdoor: 33,075; Non-Residential Indoor: 6,015; Non-Residential Outdoor: 2,005; Striped Parking Area: 1,512 (Architectural Coating – sqft)

OffRoad Equipment

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

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

Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	491.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	47.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0487	0.0280	0.4303	1.2800e-003	0.1479	7.3000e-004	0.1486	0.0392	6.8000e-004	0.0399		131.1921	131.1921	3.3100e-003	3.1100e-003	132.2023
Total	**0.0487**	**0.0280**	**0.4303**	**1.2800e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.8000e-004**	**0.0399**		**131.1921**	**131.1921**	**3.3100e-003**	**3.1100e-003**	**132.2023**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0487	0.0280	0.4303	1.2800e-003	0.1479	7.3000e-004	0.1486	0.0392	6.8000e-004	0.0399		131.1921	131.1921	3.3100e-003	3.1100e-003	132.2023
Total	**0.0487**	**0.0280**	**0.4303**	**1.2800e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.8000e-004**	**0.0399**		**131.1921**	**131.1921**	**3.3100e-003**	**3.1100e-003**	**132.2023**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0900	0.0000	7.0900	3.4259	0.0000	3.4259			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.0900**	**0.7749**	**7.8649**	**3.4259**	**0.7129**	**4.1388**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0175	1.0694	0.2597	4.9300e-003	0.1431	8.9700e-003	0.1521	0.0392	8.5800e-003	0.0478		538.1294	538.1294	0.0177	0.0853	563.9837
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0406	0.0233	0.3586	1.0700e-003	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		109.3267	109.3267	2.7600e-003	2.5900e-003	110.1686
Total	**0.0581**	**1.0927**	**0.6183**	**6.0000e-003**	**0.2664**	**9.5800e-003**	**0.2759**	**0.0719**	**9.1400e-003**	**0.0811**		**647.4561**	**647.4561**	**0.0205**	**0.0879**	**674.1523**

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

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0900	0.0000	7.0900	3.4259	0.0000	3.4259			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.0900**	**0.7749**	**7.8649**	**3.4259**	**0.7129**	**4.1388**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0175	1.0694	0.2597	4.9300e-003	0.1431	8.9700e-003	0.1521	0.0392	8.5800e-003	0.0478		538.1294	538.1294	0.0177	0.0853	563.9837
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0406	0.0233	0.3586	1.0700e-003	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		109.3267	109.3267	2.7600e-003	2.5900e-003	110.1686
Total	**0.0581**	**1.0927**	**0.6183**	**6.0000e-003**	**0.2664**	**9.5800e-003**	**0.2759**	**0.0719**	**9.1400e-003**	**0.0811**		**647.4561**	**647.4561**	**0.0205**	**0.0879**	**674.1523**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0011**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0311	0.4781	1.4200e-003	0.1643	8.1000e-004	0.1651	0.0436	7.5000e-004	0.0443		145.7690	145.7690	3.6800e-003	3.4600e-003	146.8915
Total	**0.0541**	**0.0311**	**0.4781**	**1.4200e-003**	**0.1643**	**8.1000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**145.7690**	**145.7690**	**3.6800e-003**	**3.4600e-003**	**146.8915**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.4 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0011**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0311	0.4781	1.4200e-003	0.1643	8.1000e-004	0.1651	0.0436	7.5000e-004	0.0443		145.7690	145.7690	3.6800e-003	3.4600e-003	146.8915
Total	**0.0541**	**0.0311**	**0.4781**	**1.4200e-003**	**0.1643**	**8.1000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**145.7690**	**145.7690**	**3.6800e-003**	**3.4600e-003**	**146.8915**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0109	0.4289	0.1370	2.0300e-003	0.0677	2.6000e-003	0.0703	0.0195	2.4800e-003	0.0220		217.4610	217.4610	4.4500e-003	0.0322	227.1523
Worker	0.1271	0.0730	1.1236	3.3500e-003	0.3861	1.9100e-003	0.3880	0.1024	1.7600e-003	0.1042		342.5571	342.5571	8.6400e-003	8.1300e-003	345.1949
Total	**0.1380**	**0.5019**	**1.2605**	**5.3800e-003**	**0.4538**	**4.5100e-003**	**0.4583**	**0.1219**	**4.2400e-003**	**0.1262**		**560.0181**	**560.0181**	**0.0131**	**0.0403**	**572.3472**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0109	0.4289	0.1370	2.0300e-003	0.0677	2.6000e-003	0.0703	0.0195	2.4800e-003	0.0220		217.4610	217.4610	4.4500e-003	0.0322	227.1523
Worker	0.1271	0.0730	1.1236	3.3500e-003	0.3861	1.9100e-003	0.3880	0.1024	1.7600e-003	0.1042		342.5571	342.5571	8.6400e-003	8.1300e-003	345.1949
Total	**0.1380**	**0.5019**	**1.2605**	**5.3800e-003**	**0.4538**	**4.5100e-003**	**0.4583**	**0.1219**	**4.2400e-003**	**0.1262**		**560.0181**	**560.0181**	**0.0131**	**0.0403**	**572.3472**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0106	0.4291	0.1341	1.9900e-003	0.0677	2.6200e-003	0.0704	0.0195	2.5100e-003	0.0220		214.0694	214.0694	4.4200e-003	0.0316	223.6095
Worker	0.1188	0.0652	1.0472	3.2400e-003	0.3861	1.8200e-003	0.3879	0.1024	1.6800e-003	0.1041		334.0577	334.0577	7.8100e-003	7.5800e-003	336.5106
Total	**0.1293**	**0.4943**	**1.1812**	**5.2300e-003**	**0.4538**	**4.4400e-003**	**0.4583**	**0.1219**	**4.1900e-003**	**0.1261**		**548.1271**	**548.1271**	**0.0122**	**0.0392**	**560.1200**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0106	0.4291	0.1341	1.9900e-003	0.0677	2.6200e-003	0.0704	0.0195	2.5100e-003	0.0220		214.0694	214.0694	4.4200e-003	0.0316	223.6095
Worker	0.1188	0.0652	1.0472	3.2400e-003	0.3861	1.8200e-003	0.3879	0.1024	1.6800e-003	0.1041		334.0577	334.0577	7.8100e-003	7.5800e-003	336.5106
Total	**0.1293**	**0.4943**	**1.1812**	**5.2300e-003**	**0.4538**	**4.4400e-003**	**0.4583**	**0.1219**	**4.1900e-003**	**0.1261**		**548.1271**	**548.1271**	**0.0122**	**0.0392**	**560.1200**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0103	0.4275	0.1317	1.9600e-003	0.0677	2.6200e-003	0.0704	0.0195	2.5000e-003	0.0220		210.2597	210.2597	4.4000e-003	0.0311	219.6275
Worker	0.1116	0.0588	0.9814	3.1300e-003	0.3861	1.7500e-003	0.3878	0.1024	1.6100e-003	0.1040		326.0336	326.0336	7.0800e-003	7.1000e-003	328.3272
Total	**0.1219**	**0.4863**	**1.1131**	**5.0900e-003**	**0.4538**	**4.3700e-003**	**0.4582**	**0.1219**	**4.1100e-003**	**0.1260**		**536.2932**	**536.2932**	**0.0115**	**0.0382**	**547.9547**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0103	0.4275	0.1317	1.9600e-003	0.0677	2.6200e-003	0.0704	0.0195	2.5000e-003	0.0220		210.2597	210.2597	4.4000e-003	0.0311	219.6275
Worker	0.1116	0.0588	0.9814	3.1300e-003	0.3861	1.7500e-003	0.3878	0.1024	1.6100e-003	0.1040		326.0336	326.0336	7.0800e-003	7.1000e-003	328.3272
Total	**0.1219**	**0.4863**	**1.1131**	**5.0900e-003**	**0.4538**	**4.3700e-003**	**0.4582**	**0.1219**	**4.1100e-003**	**0.1260**		**536.2932**	**536.2932**	**0.0115**	**0.0382**	**547.9547**

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

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**2.1448**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0243	0.0140	0.2152	6.4000e-004	0.0739	3.7000e-004	0.0743	0.0196	3.4000e-004	0.0200		65.5960	65.5960	1.6500e-003	1.5600e-003	66.1012
Total	**0.0243**	**0.0140**	**0.2152**	**6.4000e-004**	**0.0739**	**3.7000e-004**	**0.0743**	**0.0196**	**3.4000e-004**	**0.0200**		**65.5960**	**65.5960**	**1.6500e-003**	**1.5600e-003**	**66.1012**

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

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**2.1448**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0243	0.0140	0.2152	6.4000e-004	0.0739	3.7000e-004	0.0743	0.0196	3.4000e-004	0.0200		65.5960	65.5960	1.6500e-003	1.5600e-003	66.1012
Total	**0.0243**	**0.0140**	**0.2152**	**6.4000e-004**	**0.0739**	**3.7000e-004**	**0.0743**	**0.0196**	**3.4000e-004**	**0.0200**		**65.5960**	**65.5960**	**1.6500e-003**	**1.5600e-003**	**66.1012**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**2.1339**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0227	0.0125	0.2005	6.2000e-004	0.0739	3.5000e-004	0.0743	0.0196	3.2000e-004	0.0199		63.9685	63.9685	1.5000e-003	1.4500e-003	64.4382
Total	**0.0227**	**0.0125**	**0.2005**	**6.2000e-004**	**0.0739**	**3.5000e-004**	**0.0743**	**0.0196**	**3.2000e-004**	**0.0199**		**63.9685**	**63.9685**	**1.5000e-003**	**1.4500e-003**	**64.4382**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**2.1339**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0227	0.0125	0.2005	6.2000e-004	0.0739	3.5000e-004	0.0743	0.0196	3.2000e-004	0.0199		63.9685	63.9685	1.5000e-003	1.4500e-003	64.4382
Total	**0.0227**	**0.0125**	**0.2005**	**6.2000e-004**	**0.0739**	**3.5000e-004**	**0.0743**	**0.0196**	**3.2000e-004**	**0.0199**		**63.9685**	**63.9685**	**1.5000e-003**	**1.4500e-003**	**64.4382**

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**2.1240**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0214	0.0113	0.1879	6.0000e-004	0.0739	3.3000e-004	0.0743	0.0196	3.1000e-004	0.0199		62.4320	62.4320	1.3600e-003	1.3600e-003	62.8712
Total	**0.0214**	**0.0113**	**0.1879**	**6.0000e-004**	**0.0739**	**3.3000e-004**	**0.0743**	**0.0196**	**3.1000e-004**	**0.0199**		**62.4320**	**62.4320**	**1.3600e-003**	**1.3600e-003**	**62.8712**

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**2.1240**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0214	0.0113	0.1879	6.0000e-004	0.0739	3.3000e-004	0.0743	0.0196	3.1000e-004	0.0199		62.4320	62.4320	1.3600e-003	1.3600e-003	62.8712
Total	**0.0214**	**0.0113**	**0.1879**	**6.0000e-004**	**0.0739**	**3.3000e-004**	**0.0743**	**0.0196**	**3.1000e-004**	**0.0199**		**62.4320**	**62.4320**	**1.3600e-003**	**1.3600e-003**	**62.8712**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0868	1.9385	17.5523	0.0389	4.2503	0.0273	4.2776	1.1321	0.0254	1.1575		4,055.3831	4,055.3831	0.2310	0.1732	4,112.7570
Unmitigated	2.2001	2.1344	19.4179	0.0439	4.8190	0.0305	4.8495	1.2835	0.0284	1.3119		4,582.3037	4,582.3037	0.2509	0.1905	4,645.3464

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	510.09	510.09	510.09	1,326,818	1,170,253
Office Park	329.50	329.50	329.50	962,627	849,037
Parking Lot	0.00	0.00	0.00		
Total	839.59	839.59	839.59	2,289,445	2,019,290

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0

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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820
Office Park	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820
Parking Lot	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0275	0.2361	0.1098	1.5000e-003		0.0190	0.0190		0.0190	0.0190		299.6198	299.6198	5.7400e-003	5.4900e-003	301.4003
NaturalGas Unmitigated	0.0275	0.2361	0.1098	1.5000e-003		0.0190	0.0190		0.0190	0.0190		299.6198	299.6198	5.7400e-003	5.4900e-003	301.4003

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	2317.04	0.0250	0.2135	0.0909	1.3600e-003		0.0173	0.0173		0.0173	0.0173		272.5935	272.5935	5.2200e-003	5.0000e-003	274.2134
Office Park	229.724	2.4800e-003	0.0225	0.0189	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003		27.0263	27.0263	5.2000e-004	5.0000e-004	27.1869
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0275**	**0.2361**	**0.1098**	**1.5000e-003**		**0.0190**	**0.0190**		**0.0190**	**0.0190**		**299.6198**	**299.6198**	**5.7400e-003**	**5.5000e-003**	**301.4003**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	2.31704	0.0250	0.2135	0.0909	1.3600e-003		0.0173	0.0173		0.0173	0.0173		272.5935	272.5935	5.2200e-003	5.0000e-003	274.2134
Office Park	0.229724	2.4800e-003	0.0225	0.0189	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003		27.0263	27.0263	5.2000e-004	5.0000e-004	27.1869
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0275**	**0.2361**	**0.1098**	**1.5000e-003**		**0.0190**	**0.0190**		**0.0190**	**0.0190**		**299.6198**	**299.6198**	**5.7400e-003**	**5.5000e-003**	**301.4003**

6.0 Area Detail

6.1 Mitigation Measures Area

The Gates Mixed-Use Project - Bay Area AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0143	0.1274	9.0012	0.0164		0.8309	0.8309		0.8309	0.8309	119.3244	7.2937	126.6181	0.5648	0.0000	140.7387
Unmitigated	2.0143	0.1274	9.0012	0.0164		0.8309	0.8309		0.8309	0.8309	119.3244	7.2937	126.6181	0.5648	0.0000	140.7387

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2033					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1433					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5457	0.0808	4.9557	0.0162		0.8084	0.8084		0.8084	0.8084	119.3244	0.0000	119.3244	0.5578	0.0000	133.2698
Landscaping	0.1219	0.0466	4.0456	2.1000e-004		0.0224	0.0224		0.0224	0.0224		7.2937	7.2937	7.0100e-003		7.4690
Total	**2.0143**	**0.1274**	**9.0012**	**0.0164**		**0.8309**	**0.8309**		**0.8309**	**0.8309**	**119.3244**	**7.2937**	**126.6181**	**0.5648**	**0.0000**	**140.7387**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2033					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1433					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5457	0.0808	4.9557	0.0162		0.8084	0.8084		0.8084	0.8084	119.3244	0.0000	119.3244	0.5578	0.0000	133.2698
Landscaping	0.1219	0.0466	4.0456	2.1000e-004		0.0224	0.0224		0.0224	0.0224		7.2937	7.2937	7.0100e-003		7.4690
Total	**2.0143**	**0.1274**	**9.0012**	**0.0164**		**0.8309**	**0.8309**		**0.8309**	**0.8309**	**119.3244**	**7.2937**	**126.6181**	**0.5648**	**0.0000**	**140.7387**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

The Gates Mixed-Use Project - Bay Area AQMD Air District, Winter

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

The Gates Mixed-Use Project

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	4.01	1000sqft	0.09	4,010.00	0
Parking Lot	63.00	Space	0.57	25,200.00	0
Condo/Townhouse	49.00	Dwelling Unit	3.15	49,000.00	140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjusted to be representative of total project site acreage.

Construction Phase - Construction phase timing based on applicant provided AQ Questionnaire. Architectural coating assumed to start two weeks after building construction and last for the same duration.

Grading - Based on Preliminary Grading Plan prepared for the proposed project.

Vehicle Trips - Trip rates adjusted to be consistent with trip generation report provided by Hexagon Consultants.

Woodstoves - Based on applicant provided AQ Questionnaire. The proposed residential units would not include fire places.

Mobile Land Use Mitigation - Based on applicant provided AQ Questionnaire.

Water Mitigation - Based on applicant provided AQ Questionnaire.

The Gates Mixed-Use Project - Bay Area AQMD Air District, Winter

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

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	380.00
tblConstructionPhase	NumDays	230.00	380.00
tblConstructionPhase	NumDays	8.00	60.00
tblConstructionPhase	NumDays	5.00	20.00
tblFireplaces	NumberGas	7.35	0.00
tblFireplaces	NumberNoFireplace	1.96	49.00
tblFireplaces	NumberWood	8.33	0.00
tblGrading	MaterialExported	0.00	3,926.00
tblLandUse	LotAcreage	3.06	3.15
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	82.00	100.00
tblVehicleTrips	ST_TR	8.14	10.41
tblVehicleTrips	ST_TR	1.64	82.17
tblVehicleTrips	SU_TR	6.28	10.41
tblVehicleTrips	SU_TR	0.76	82.17
tblVehicleTrips	WD_TR	7.32	10.41
tblVehicleTrips	WD_TR	11.07	82.17

2.0 Emissions Summary

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.8834	27.5587	19.4789	0.0393	19.8049	1.2668	21.0716	10.1417	1.1654	11.3071	0.0000	3,809.2010	3,809.2010	1.1963	0.0884	3,840.1764
2024	3.7614	15.2125	19.3149	0.0355	0.5278	0.6790	1.2068	0.1415	0.6423	0.7839	0.0000	3,421.4026	3,421.4026	0.6352	0.0421	3,449.8306
2025	3.6386	14.1539	19.1571	0.0354	0.5278	0.5838	1.1115	0.1415	0.5522	0.6937	0.0000	3,409.5347	3,409.5347	0.6303	0.0409	3,437.4740
Maximum	**3.8834**	**27.5587**	**19.4789**	**0.0393**	**19.8049**	**1.2668**	**21.0716**	**10.1417**	**1.1654**	**11.3071**	**0.0000**	**3,809.2010**	**3,809.2010**	**1.1963**	**0.0884**	**3,840.1764**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.8834	27.5587	19.4789	0.0393	19.8049	1.2668	21.0716	10.1417	1.1654	11.3071	0.0000	3,809.2010	3,809.2010	1.1963	0.0884	3,840.1764
2024	3.7614	15.2125	19.3149	0.0355	0.5278	0.6790	1.2068	0.1415	0.6423	0.7839	0.0000	3,421.4026	3,421.4026	0.6352	0.0421	3,449.8306
2025	3.6386	14.1539	19.1571	0.0354	0.5278	0.5838	1.1115	0.1415	0.5522	0.6937	0.0000	3,409.5347	3,409.5347	0.6303	0.0409	3,437.4740
Maximum	**3.8834**	**27.5587**	**19.4789**	**0.0393**	**19.8049**	**1.2668**	**21.0716**	**10.1417**	**1.1654**	**11.3071**	**0.0000**	**3,809.2010**	**3,809.2010**	**1.1963**	**0.0884**	**3,840.1764**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0143	0.1274	9.0012	0.0164		0.8309	0.8309		0.8309	0.8309	119.3244	7.2937	126.6181	0.5648	0.0000	140.7387
Energy	0.0275	0.2361	0.1098	1.5000e-003		0.0190	0.0190		0.0190	0.0190		299.6198	299.6198	5.7400e-003	5.4900e-003	301.4003
Mobile	1.9969	2.4510	20.6055	0.0415	4.8190	0.0305	4.8495	1.2835	0.0285	1.3120		4,326.1450	4,326.1450	0.2811	0.2082	4,395.2152
Total	**4.0387**	**2.8145**	**29.7165**	**0.0594**	**4.8190**	**0.8804**	**5.6993**	**1.2835**	**0.8783**	**2.1618**	**119.3244**	**4,633.0585**	**4,752.3829**	**0.8517**	**0.2137**	**4,837.3542**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0143	0.1274	9.0012	0.0164		0.8309	0.8309		0.8309	0.8309	119.3244	7.2937	126.6181	0.5648	0.0000	140.7387
Energy	0.0275	0.2361	0.1098	1.5000e-003		0.0190	0.0190		0.0190	0.0190		299.6198	299.6198	5.7400e-003	5.4900e-003	301.4003
Mobile	1.8777	2.2272	18.7998	0.0367	4.2503	0.0273	4.2776	1.1321	0.0254	1.1575		3,829.8799	3,829.8799	0.2609	0.1895	3,892.8754
Total	**3.9194**	**2.5907**	**27.9109**	**0.0546**	**4.2503**	**0.8771**	**5.1275**	**1.1321**	**0.8753**	**2.0073**	**119.3244**	**4,136.7934**	**4,256.1178**	**0.8315**	**0.1950**	**4,335.0144**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.95**	**7.95**	**6.08**	**8.02**	**11.80**	**0.37**	**10.03**	**11.80**	**0.34**	**7.15**	**0.00**	**10.71**	**10.44**	**2.38**	**8.74**	**10.38**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2023	7/28/2023	5	20	
2	Grading	Grading	7/29/2023	10/20/2023	5	60	
3	Paving	Paving	10/21/2023	11/15/2023	5	18	
4	Building Construction	Building Construction	11/16/2023	4/30/2025	5	380	
5	Architectural Coating	Architectural Coating	11/30/2023	5/14/2025	5	380	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 60

Acres of Paving: 0.57

Residential Indoor: 99,225; Residential Outdoor: 33,075; Non-Residential Indoor: 6,015; Non-Residential Outdoor: 2,005; Striped Parking Area: 1,512 (Architectural Coating – sqft)

OffRoad Equipment

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

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

Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	491.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	47.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0499	0.0345	0.4121	1.1900e-003	0.1479	7.3000e-004	0.1486	0.0392	6.8000e-004	0.0399		121.8929	121.8929	3.7600e-003	3.5800e-003	123.0546
Total	**0.0499**	**0.0345**	**0.4121**	**1.1900e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.8000e-004**	**0.0399**		**121.8929**	**121.8929**	**3.7600e-003**	**3.5800e-003**	**123.0546**

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

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0499	0.0345	0.4121	1.1900e-003	0.1479	7.3000e-004	0.1486	0.0392	6.8000e-004	0.0399		121.8929	121.8929	3.7600e-003	3.5800e-003	123.0546
Total	**0.0499**	**0.0345**	**0.4121**	**1.1900e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.8000e-004**	**0.0399**		**121.8929**	**121.8929**	**3.7600e-003**	**3.5800e-003**	**123.0546**

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

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0900	0.0000	7.0900	3.4259	0.0000	3.4259			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.0900**	**0.7749**	**7.8649**	**3.4259**	**0.7129**	**4.1388**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0165	1.1310	0.2631	4.9400e-003	0.1431	8.9800e-003	0.1521	0.0392	8.6000e-003	0.0478		538.6362	538.6362	0.0177	0.0854	564.5143
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0416	0.0288	0.3434	9.9000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		101.5775	101.5775	3.1300e-003	2.9900e-003	102.5455
Total	**0.0581**	**1.1598**	**0.6065**	**5.9300e-003**	**0.2664**	**9.5900e-003**	**0.2759**	**0.0719**	**9.1600e-003**	**0.0811**		**640.2136**	**640.2136**	**0.0208**	**0.0884**	**667.0598**

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

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0900	0.0000	7.0900	3.4259	0.0000	3.4259			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.0900**	**0.7749**	**7.8649**	**3.4259**	**0.7129**	**4.1388**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0165	1.1310	0.2631	4.9400e-003	0.1431	8.9800e-003	0.1521	0.0392	8.6000e-003	0.0478		538.6362	538.6362	0.0177	0.0854	564.5143
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0416	0.0288	0.3434	9.9000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		101.5775	101.5775	3.1300e-003	2.9900e-003	102.5455
Total	**0.0581**	**1.1598**	**0.6065**	**5.9300e-003**	**0.2664**	**9.5900e-003**	**0.2759**	**0.0719**	**9.1600e-003**	**0.0811**		**640.2136**	**640.2136**	**0.0208**	**0.0884**	**667.0598**

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

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0011**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0555	0.0383	0.4579	1.3200e-003	0.1643	8.1000e-004	0.1651	0.0436	7.5000e-004	0.0443		135.4366	135.4366	4.1800e-003	3.9800e-003	136.7273
Total	**0.0555**	**0.0383**	**0.4579**	**1.3200e-003**	**0.1643**	**8.1000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**135.4366**	**135.4366**	**4.1800e-003**	**3.9800e-003**	**136.7273**

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

3.4 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0011**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0555	0.0383	0.4579	1.3200e-003	0.1643	8.1000e-004	0.1651	0.0436	7.5000e-004	0.0443		135.4366	135.4366	4.1800e-003	3.9800e-003	136.7273
Total	**0.0555**	**0.0383**	**0.4579**	**1.3200e-003**	**0.1643**	**8.1000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**135.4366**	**135.4366**	**4.1800e-003**	**3.9800e-003**	**136.7273**

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0105	0.4539	0.1417	2.0300e-003	0.0677	2.6100e-003	0.0703	0.0195	2.4900e-003	0.0220		217.7721	217.7721	4.4200e-003	0.0322	227.4870
Worker	0.1304	0.0901	1.0761	3.1100e-003	0.3861	1.9100e-003	0.3880	0.1024	1.7600e-003	0.1042		318.2760	318.2760	9.8200e-003	9.3500e-003	321.3092
Total	**0.1409**	**0.5440**	**1.2177**	**5.1400e-003**	**0.4538**	**4.5200e-003**	**0.4583**	**0.1219**	**4.2500e-003**	**0.1262**		**536.0481**	**536.0481**	**0.0142**	**0.0416**	**548.7962**

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

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0105	0.4539	0.1417	2.0300e-003	0.0677	2.6100e-003	0.0703	0.0195	2.4900e-003	0.0220		217.7721	217.7721	4.4200e-003	0.0322	227.4870
Worker	0.1304	0.0901	1.0761	3.1100e-003	0.3861	1.9100e-003	0.3880	0.1024	1.7600e-003	0.1042		318.2760	318.2760	9.8200e-003	9.3500e-003	321.3092
Total	**0.1409**	**0.5440**	**1.2177**	**5.1400e-003**	**0.4538**	**4.5200e-003**	**0.4583**	**0.1219**	**4.2500e-003**	**0.1262**		**536.0481**	**536.0481**	**0.0142**	**0.0416**	**548.7962**

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

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0102	0.4541	0.1387	2.0000e-003	0.0677	2.6300e-003	0.0704	0.0195	2.5100e-003	0.0220		214.3828	214.3828	4.4000e-003	0.0317	223.9457
Worker	0.1223	0.0804	1.0065	3.0100e-003	0.3861	1.8200e-003	0.3879	0.1024	1.6800e-003	0.1041		310.4290	310.4290	8.9100e-003	8.7200e-003	313.2492
Total	**0.1325**	**0.5345**	**1.1452**	**5.0100e-003**	**0.4538**	**4.4500e-003**	**0.4583**	**0.1219**	**4.1900e-003**	**0.1261**		**524.8118**	**524.8118**	**0.0133**	**0.0404**	**537.1948**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Winter

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

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0102	0.4541	0.1387	2.0000e-003	0.0677	2.6300e-003	0.0704	0.0195	2.5100e-003	0.0220		214.3828	214.3828	4.4000e-003	0.0317	223.9457
Worker	0.1223	0.0804	1.0065	3.0100e-003	0.3861	1.8200e-003	0.3879	0.1024	1.6800e-003	0.1041		310.4290	310.4290	8.9100e-003	8.7200e-003	313.2492
Total	**0.1325**	**0.5345**	**1.1452**	**5.0100e-003**	**0.4538**	**4.4500e-003**	**0.4583**	**0.1219**	**4.1900e-003**	**0.1261**		**524.8118**	**524.8118**	**0.0133**	**0.0404**	**537.1948**

The Gates Mixed-Use Project - Bay Area AQMD Air District, Winter

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

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.9200e-003	0.4524	0.1363	1.9600e-003	0.0677	2.6300e-003	0.0704	0.0195	2.5100e-003	0.0220		210.5735	210.5735	4.3700e-003	0.0311	219.9635
Worker	0.1153	0.0725	0.9459	2.9100e-003	0.3861	1.7500e-003	0.3878	0.1024	1.6100e-003	0.1040		303.0147	303.0147	8.1000e-003	8.1700e-003	305.6516
Total	**0.1252**	**0.5248**	**1.0822**	**4.8700e-003**	**0.4538**	**4.3800e-003**	**0.4582**	**0.1219**	**4.1200e-003**	**0.1260**		**513.5882**	**513.5882**	**0.0125**	**0.0393**	**525.6150**

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

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.9200e-003	0.4524	0.1363	1.9600e-003	0.0677	2.6300e-003	0.0704	0.0195	2.5100e-003	0.0220		210.5735	210.5735	4.3700e-003	0.0311	219.9635
Worker	0.1153	0.0725	0.9459	2.9100e-003	0.3861	1.7500e-003	0.3878	0.1024	1.6100e-003	0.1040		303.0147	303.0147	8.1000e-003	8.1700e-003	305.6516
Total	**0.1252**	**0.5248**	**1.0822**	**4.8700e-003**	**0.4538**	**4.3800e-003**	**0.4582**	**0.1219**	**4.1200e-003**	**0.1260**		**513.5882**	**513.5882**	**0.0125**	**0.0393**	**525.6150**

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

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**2.1448**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0250	0.0173	0.2061	6.0000e-004	0.0739	3.7000e-004	0.0743	0.0196	3.4000e-004	0.0200		60.9465	60.9465	1.8800e-003	1.7900e-003	61.5273
Total	**0.0250**	**0.0173**	**0.2061**	**6.0000e-004**	**0.0739**	**3.7000e-004**	**0.0743**	**0.0196**	**3.4000e-004**	**0.0200**		**60.9465**	**60.9465**	**1.8800e-003**	**1.7900e-003**	**61.5273**

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

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**2.1448**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0250	0.0173	0.2061	6.0000e-004	0.0739	3.7000e-004	0.0743	0.0196	3.4000e-004	0.0200		60.9465	60.9465	1.8800e-003	1.7900e-003	61.5273
Total	**0.0250**	**0.0173**	**0.2061**	**6.0000e-004**	**0.0739**	**3.7000e-004**	**0.0743**	**0.0196**	**3.4000e-004**	**0.0200**		**60.9465**	**60.9465**	**1.8800e-003**	**1.7900e-003**	**61.5273**

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

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**2.1339**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0234	0.0154	0.1927	5.8000e-004	0.0739	3.5000e-004	0.0743	0.0196	3.2000e-004	0.0199		59.4439	59.4439	1.7100e-003	1.6700e-003	59.9839
Total	**0.0234**	**0.0154**	**0.1927**	**5.8000e-004**	**0.0739**	**3.5000e-004**	**0.0743**	**0.0196**	**3.2000e-004**	**0.0199**		**59.4439**	**59.4439**	**1.7100e-003**	**1.6700e-003**	**59.9839**

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

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**2.1339**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0234	0.0154	0.1927	5.8000e-004	0.0739	3.5000e-004	0.0743	0.0196	3.2000e-004	0.0199		59.4439	59.4439	1.7100e-003	1.6700e-003	59.9839
Total	**0.0234**	**0.0154**	**0.1927**	**5.8000e-004**	**0.0739**	**3.5000e-004**	**0.0743**	**0.0196**	**3.2000e-004**	**0.0199**		**59.4439**	**59.4439**	**1.7100e-003**	**1.6700e-003**	**59.9839**

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**2.1240**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0221	0.0139	0.1811	5.6000e-004	0.0739	3.3000e-004	0.0743	0.0196	3.1000e-004	0.0199		58.0241	58.0241	1.5500e-003	1.5600e-003	58.5290
Total	**0.0221**	**0.0139**	**0.1811**	**5.6000e-004**	**0.0739**	**3.3000e-004**	**0.0743**	**0.0196**	**3.1000e-004**	**0.0199**		**58.0241**	**58.0241**	**1.5500e-003**	**1.5600e-003**	**58.5290**

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**2.1240**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0221	0.0139	0.1811	5.6000e-004	0.0739	3.3000e-004	0.0743	0.0196	3.1000e-004	0.0199		58.0241	58.0241	1.5500e-003	1.5600e-003	58.5290
Total	**0.0221**	**0.0139**	**0.1811**	**5.6000e-004**	**0.0739**	**3.3000e-004**	**0.0743**	**0.0196**	**3.1000e-004**	**0.0199**		**58.0241**	**58.0241**	**1.5500e-003**	**1.5600e-003**	**58.5290**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8777	2.2272	18.7998	0.0367	4.2503	0.0273	4.2776	1.1321	0.0254	1.1575		3,829.8799	3,829.8799	0.2609	0.1895	3,892.8754
Unmitigated	1.9969	2.4510	20.6055	0.0415	4.8190	0.0305	4.8495	1.2835	0.0285	1.3120		4,326.1450	4,326.1450	0.2811	0.2082	4,395.2152

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	510.09	510.09	510.09	1,326,818	1,170,253
Office Park	329.50	329.50	329.50	962,627	849,037
Parking Lot	0.00	0.00	0.00		
Total	839.59	839.59	839.59	2,289,445	2,019,290

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0

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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820
Office Park	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820
Parking Lot	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0275	0.2361	0.1098	1.5000e-003		0.0190	0.0190		0.0190	0.0190		299.6198	299.6198	5.7400e-003	5.4900e-003	301.4003
NaturalGas Unmitigated	0.0275	0.2361	0.1098	1.5000e-003		0.0190	0.0190		0.0190	0.0190		299.6198	299.6198	5.7400e-003	5.4900e-003	301.4003

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	2317.04	0.0250	0.2135	0.0909	1.3600e-003		0.0173	0.0173		0.0173	0.0173		272.5935	272.5935	5.2200e-003	5.0000e-003	274.2134
Office Park	229.724	2.4800e-003	0.0225	0.0189	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003		27.0263	27.0263	5.2000e-004	5.0000e-004	27.1869
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0275**	**0.2361**	**0.1098**	**1.5000e-003**		**0.0190**	**0.0190**		**0.0190**	**0.0190**		**299.6198**	**299.6198**	**5.7400e-003**	**5.5000e-003**	**301.4003**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	2.31704	0.0250	0.2135	0.0909	1.3600e-003		0.0173	0.0173		0.0173	0.0173		272.5935	272.5935	5.2200e-003	5.0000e-003	274.2134
Office Park	0.229724	2.4800e-003	0.0225	0.0189	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003		27.0263	27.0263	5.2000e-004	5.0000e-004	27.1869
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0275**	**0.2361**	**0.1098**	**1.5000e-003**		**0.0190**	**0.0190**		**0.0190**	**0.0190**		**299.6198**	**299.6198**	**5.7400e-003**	**5.5000e-003**	**301.4003**

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0143	0.1274	9.0012	0.0164		0.8309	0.8309		0.8309	0.8309	119.3244	7.2937	126.6181	0.5648	0.0000	140.7387
Unmitigated	2.0143	0.1274	9.0012	0.0164		0.8309	0.8309		0.8309	0.8309	119.3244	7.2937	126.6181	0.5648	0.0000	140.7387

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2033					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1433					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5457	0.0808	4.9557	0.0162		0.8084	0.8084		0.8084	0.8084	119.3244	0.0000	119.3244	0.5578	0.0000	133.2698
Landscaping	0.1219	0.0466	4.0456	2.1000e-004		0.0224	0.0224		0.0224	0.0224		7.2937	7.2937	7.0100e-003		7.4690
Total	**2.0143**	**0.1274**	**9.0012**	**0.0164**		**0.8309**	**0.8309**		**0.8309**	**0.8309**	**119.3244**	**7.2937**	**126.6181**	**0.5648**	**0.0000**	**140.7387**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2033					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1433					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5457	0.0808	4.9557	0.0162		0.8084	0.8084		0.8084	0.8084	119.3244	0.0000	119.3244	0.5578	0.0000	133.2698
Landscaping	0.1219	0.0466	4.0456	2.1000e-004		0.0224	0.0224		0.0224	0.0224		7.2937	7.2937	7.0100e-003		7.4690
Total	**2.0143**	**0.1274**	**9.0012**	**0.0164**		**0.8309**	**0.8309**		**0.8309**	**0.8309**	**119.3244**	**7.2937**	**126.6181**	**0.5648**	**0.0000**	**140.7387**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

The Gates Mixed-Use Project

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

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

The Gates Mixed-Use Project

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

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	2	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	11	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

The Gates Mixed-Use Project

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	3.39900E-002	2.28980E-001	3.43890E-001	5.60000E-004	1.12300E-002	1.12300E-002	0.00000E+000	4.85118E+001	4.85118E+001	2.72000E-003	0.00000E+000	4.85798E+001
Cement and Mortar Mixers	7.90000E-004	4.97000E-003	4.16000E-003	1.00000E-005	1.90000E-004	1.90000E-004	0.00000E+000	6.18670E-001	6.18670E-001	6.00000E-005	0.00000E+000	6.20280E-001
Cranes	5.47200E-002	5.74290E-001	2.94440E-001	9.60000E-004	2.40100E-002	2.20900E-002	0.00000E+000	8.42798E+001	8.42798E+001	2.72600E-002	0.00000E+000	8.49613E+001
Excavators	5.66000E-003	4.64600E-002	9.77300E-002	1.60000E-004	2.27000E-003	2.09000E-003	0.00000E+000	1.36107E+001	1.36107E+001	4.40000E-003	0.00000E+000	1.37207E+001
Forklifts	5.31500E-002	4.98880E-001	6.48950E-001	8.70000E-004	2.85500E-002	2.62700E-002	0.00000E+000	7.65461E+001	7.65461E+001	2.47600E-002	0.00000E+000	7.71650E+001
Generator Sets	5.36900E-002	4.79790E-001	6.96040E-001	1.25000E-003	2.06600E-002	2.06600E-002	0.00000E+000	1.07389E+002	1.07389E+002	4.29000E-003	0.00000E+000	1.07497E+002
Graders	1.15000E-002	1.39590E-001	5.07800E-002	2.00000E-004	4.52000E-003	4.16000E-003	0.00000E+000	1.74412E+001	1.74412E+001	5.64000E-003	0.00000E+000	1.75822E+001
Pavers	1.73000E-003	1.69500E-002	2.59500E-002	4.00000E-005	8.00000E-004	7.30000E-004	0.00000E+000	3.71670E+000	3.71670E+000	1.20000E-003	0.00000E+000	3.74675E+000
Paving Equipment	2.30000E-003	2.16400E-002	3.45200E-002	6.00000E-005	1.05000E-003	9.70000E-004	0.00000E+000	4.83104E+000	4.83104E+000	1.56000E-003	0.00000E+000	4.87010E+000
Rollers	2.08000E-003	2.17400E-002	2.50100E-002	4.00000E-005	1.20000E-003	1.10000E-003	0.00000E+000	3.11206E+000	3.11206E+000	1.01000E-003	0.00000E+000	3.13722E+000
Rubber Tired Dozers	4.10800E-002	4.27630E-001	1.86380E-001	5.10000E-004	1.92600E-002	1.77100E-002	0.00000E+000	4.50146E+001	4.50146E+001	1.45600E-002	0.00000E+000	4.53785E+001
Tractors/Loaders/ Backhoes	9.18000E-002	9.26670E-001	1.42431E+000	1.99000E-003	4.26800E-002	3.92700E-002	0.00000E+000	1.74588E+002	1.74588E+002	5.64700E-002	0.00000E+000	1.75999E+002
Welders	4.44200E-002	2.61320E-001	3.15810E-001	4.90000E-004	8.86000E-003	8.86000E-003	0.00000E+000	3.57619E+001	3.57619E+001	3.61000E-003	0.00000E+000	3.58523E+001

The Gates Mixed-Use Project

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	3.39900E-002	2.28980E-001	3.43890E-001	5.60000E-004	1.12300E-002	1.12300E-002	0.00000E+000	4.85118E+001	4.85118E+001	2.72000E-003	0.00000E+000	4.85798E+001
Cement and Mortar Mixers	7.90000E-004	4.97000E-003	4.16000E-003	1.00000E-005	1.90000E-004	1.90000E-004	0.00000E+000	6.18670E-001	6.18670E-001	6.00000E-005	0.00000E+000	6.20280E-001
Cranes	5.47200E-002	5.74290E-001	2.94440E-001	9.60000E-004	2.40100E-002	2.20900E-002	0.00000E+000	8.42797E+001	8.42797E+001	2.72600E-002	0.00000E+000	8.49612E+001
Excavators	5.66000E-003	4.64600E-002	9.77300E-002	1.60000E-004	2.27000E-003	2.09000E-003	0.00000E+000	1.36106E+001	1.36106E+001	4.40000E-003	0.00000E+000	1.37207E+001
Forklifts	5.31500E-002	4.98880E-001	6.48950E-001	8.70000E-004	2.85500E-002	2.62700E-002	0.00000E+000	7.65460E+001	7.65460E+001	2.47600E-002	0.00000E+000	7.71649E+001
Generator Sets	5.36900E-002	4.79790E-001	6.96040E-001	1.25000E-003	2.06600E-002	2.06600E-002	0.00000E+000	1.07389E+002	1.07389E+002	4.29000E-003	0.00000E+000	1.07497E+002
Graders	1.15000E-002	1.39590E-001	5.07800E-002	2.00000E-004	4.52000E-003	4.16000E-003	0.00000E+000	1.74412E+001	1.74412E+001	5.64000E-003	0.00000E+000	1.75822E+001
Pavers	1.73000E-003	1.69500E-002	2.59500E-002	4.00000E-005	8.00000E-004	7.30000E-004	0.00000E+000	3.71669E+000	3.71669E+000	1.20000E-003	0.00000E+000	3.74674E+000
Paving Equipment	2.30000E-003	2.16400E-002	3.45200E-002	6.00000E-005	1.05000E-003	9.70000E-004	0.00000E+000	4.83103E+000	4.83103E+000	1.56000E-003	0.00000E+000	4.87009E+000
Rollers	2.08000E-003	2.17400E-002	2.50100E-002	4.00000E-005	1.20000E-003	1.10000E-003	0.00000E+000	3.11205E+000	3.11205E+000	1.01000E-003	0.00000E+000	3.13721E+000
Rubber Tired Dozers	4.10800E-002	4.27630E-001	1.86380E-001	5.10000E-004	1.92600E-002	1.77100E-002	0.00000E+000	4.50145E+001	4.50145E+001	1.45600E-002	0.00000E+000	4.53785E+001
Tractors/Loaders/Backhoes	9.18000E-002	9.26670E-001	1.42431E+000	1.99000E-003	4.26800E-002	3.92700E-002	0.00000E+000	1.74587E+002	1.74587E+002	5.64700E-002	0.00000E+000	1.75999E+002
Welders	4.44200E-002	2.61320E-001	3.15810E-001	4.90000E-004	8.86000E-003	8.86000E-003	0.00000E+000	3.57619E+001	3.57619E+001	3.61000E-003	0.00000E+000	3.58522E+001

The Gates Mixed-Use Project

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23681E-006	1.23681E-006	0.00000E+000	0.00000E+000	1.23508E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18652E-006	1.18652E-006	0.00000E+000	0.00000E+000	1.17701E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.46944E-006	1.46944E-006	0.00000E+000	0.00000E+000	1.45765E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17576E-006	1.17576E-006	0.00000E+000	0.00000E+000	1.16633E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21055E-006	1.21055E-006	0.00000E+000	0.00000E+000	1.20934E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14671E-006	1.14671E-006	0.00000E+000	0.00000E+000	1.13751E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.69056E-006	2.69056E-006	0.00000E+000	0.00000E+000	2.66898E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.06995E-006	2.06995E-006	0.00000E+000	0.00000E+000	2.05335E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.21331E-006	3.21331E-006	0.00000E+000	0.00000E+000	3.18754E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.33290E-006	1.33290E-006	0.00000E+000	0.00000E+000	1.10184E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20283E-006	1.20283E-006	0.00000E+000	0.00000E+000	1.19319E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11851E-006	1.11851E-006	0.00000E+000	0.00000E+000	1.11569E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			

The Gates Mixed-Use Project

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

No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.08	0.02	0.08	0.02	0.00	0.00
Grading	Fugitive Dust	0.21	0.10	0.21	0.10	0.00	0.00
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.20	0.10	0.20	0.10	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

The Gates Mixed-Use Project

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

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	5.81	9.16	9.03	11.46	10.63	10.64	0.00	11.48	11.48	7.46	9.04	11.44
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	17.11	18.01	19.98	19.93	19.01
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.12	0.35		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
Yes	Land Use	Increase Transit Accessibility	0.15	0.30		
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.10			

The Gates Mixed-Use Project

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

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.12			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	

The Gates Mixed-Use Project

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

No	Commute	Provide Ride Sharing Program	10.00			
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.12			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

The Gates Mixed-Use Project

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

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	20.00	10.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

The Gates Mixed-Use Project

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

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Appendix B

Biological Assessment & Arborist Report

Appendix B

Biological Assessment & Arborist Report

Preliminary Biological Assessment

18545-18565 Monterey Road

Morgan Hill, Santa Clara County, California



April 2022

Prepared by:

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JOHNSON MARIGOT
CONSULTING, LLC

PRELIMINARY BIOLOGICAL ASSESSMENT

18545-18565 MONTEREY ROAD

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Attachments

Attachment 1. Proposed Project Development
Attachment 2. Site Photos
Attachment 3. NRCS Soils Report
Attachment 4. Petition to State of California for Listing of Bumble Bees
Attachment 5. Conditions of Santa Clara Valley Habitat Plan

SECTION 1. INTRODUCTION

Johnson Marigot Consulting, LLC (JMC) has been retained to provide a biological constraints analysis for an approximately 4.7-acre property located at 18545 Monterey Road (Accessor Parcel Number (APN) 764-10-013) and 18565 Monterey Road (APN 764-10-015) in the City of Morgan Hill, Santa Clara County, California (Figure 1). It is within the coverage area of the Santa Clara Valley Habitat Plan (SCVHP). The purpose of this report is to qualitatively identify potential occurrences and/or habitat for special-status plant and wildlife species on the site and to identify local, state, and/or federal biological constraints and ordinances applicable to the development of the site. The site is proposed for residential development within the entirety of the parcel boundaries (Attachment 1), and as such, is presumed to include site grading and compaction with removal of existing vegetation within the entirety of the parcel boundaries. The site is located entirely within the Planning Limit of Urban Growth for the City of Morgan Hill, as defined in the SCVHP (Figure 2).

SECTION 2. METHODOLOGY

A literature review was conducted for special-status species known to occur in the vicinity of 18545-18565 Monterey Road. In addition to a literature review, the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Rare Plant Inventory were queried for occurrences of special-status species in the vicinity of the site. A list of these special-status species has been compiled in Table 2, which also discusses listing/ranking status, required habitat components, proximity of records to 18545-18565 Monterey Road, and probability of occurrence within the site.

Additional research was conducted to identify local, state, and federal natural resource ordinances and laws that would be applicable to the development of 18545-18565 Monterey Road; these ordinances and laws are discussed below. It should be noted however that although some local entitlement requirements are addressed below (e.g., The Santa Clara Valley Habitat Plan), this report only summarizes local requirements pertaining to biological resources.

On September 17, 2021, Naomi Schowalter of JMC conducted a site visit to evaluate biological resources present on site. The site assessment included a reconnaissance level survey of 18545-18565 Monterey Road to characterize vegetation, topography, and current and historic uses of the site (as well as the surrounding properties), and to investigate potential presence of waters of the U.S./State. Observations made during site visits were used to determine the potential for the site to provide suitable habitat for special-status species (presence of habitat components necessary to support the species) and sensitive habitats.

SECTION 3. EXISTING SITE CONDITIONS

The approximately 4.7-acre property is comprised of two parcels and is located within the city limits of Morgan Hill, Santa Clara County, California (the approximate center of the site is 37.1429042°N, -121.6635127°W) (Figure 1). The roughly triangular site is located south of the intersection of Monterey Road and Jarvis Drive (Figure 1). The western boundary abuts an elevated railroad track, the eastern boundary is Monterey Road, and the northern boundary is a commercial development (gas station and Starbucks Coffee). Topography within the Study Area is flat to gently sloping. Vegetation in the Study Area consists of non-native annual grassland and seasonal wetland species with scattered native and non-native trees and shrubs, particularly along the edges of the property. Part of the Starbucks Coffee parking lot is within the project boundary. The undeveloped portion of the site is routinely disked and mowed for fuel reduction. Three depressional wetlands, three converging wetland drainage ditches, one stormwater detention basin, and a small patch of cattails associated with the stormwater detention basin are located in the project area (Figure 3). The property historically contained a single drainage ditch constructed in the late 1930s to improve drainage of the adjacent State Highway (now Monterey Road), spanning from three 24-inch culverts near Monterey Road on the eastern side of the property to the railroad tracks on the western side of the property. The other two short lengths of ditch and the stormwater detention basin were constructed in 2004-2005 as part of the commercial development bordering the northern edge of the project area.

3.1 LAND COVER TYPES

Per CDFW's California Wildlife Habitat Relationships (CWHR) System, the predominant vegetation communities within the Study Area are annual grassland, fresh emergent wetland, and urban (CDFW 2022a). Under the SCVHP, the equivalent land cover types are California annual grassland, seasonal wetlands, and ornamental woodland, respectively (Figure 3). Additionally, the Starbucks Coffee parking lot is considered urban-suburban land cover under the SCVHP. Herbaceous vegetation dominates the site, and trees and shrubs are primarily evenly spaced along the edges of the property and the detention basin. Vegetation communities on the site are altered due to routine mowing and disking, plantings, and constructed drainage features.

3.1.1 CALIFORNIA ANNUAL GRASSLAND

The California annual grassland vegetation community is most common across the project site. Plant species common throughout this community include oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), and wild radish (*Raphanus* sp.). The annual grasslands in the project area are routinely mowed or plowed. Coyote brush (*Baccharis pilularis*) is scattered across the annual grassland.

The SCVHP indicates that this habitat type may constitute habitat components for covered

species, including San Joaquin kit fox (*Vulpes macrotis mutica*), western burrowing owl (*Athene cunicularia hypugea*), California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), western pond turtle (*Clemmys marmorata*), tricolored blackbird (*Agelaius tricolor*), and Bay checkerspot butterfly (*Euphydryas editha bayensis*). None of these species were observed, though California ground squirrel (*Spermophilius beecheyi*) burrows were found during the September 17 site visit; burrows represent potential nest sites for western burrowing owls.

3.1.2 SEASONAL WETLAND

Seasonal freshwater emergent wetlands cover approximately 0.52 acre of the Study Area. This community is relatively evenly distributed across the site. Plant species common within this vegetation community include seaside barley (*Hordeum marinum*), English plantain (*Plantago lanceolata*), rabbitsfoot grass (*Polypogon monspeliensis*), Italian rye grass (*Festua perennis*), curly dock (*Rumex crispus*), tall cypress (*Cyperus* eragrostis), rough cocklebur (*Xanthium stumarium*), and stinkwort (*Dittrichia graveolens*). The SCVHP indicates that this habitat type may constitute habitat components for covered species, including California tiger salamander, California red-legged frog, western pond turtle, western burrowing owl, tricolored blackbird, and San Joaquin kit fox.

3.1.3 ORNAMENTAL WOODLAND

Large established trees and shrubs are present along Monterey Road, the railroad tracks, and the edges of the detention basin, consisting of evenly spaced (i.e., planted) native and non-native species. Along the railroad tracks, willows (*Salix exigua*), coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), coast redwood (*Sequoia sempervirens*), and Northern California black walnut (*Jugluns hindsii*) are present at even intervals. To the east of the detention basin, silver wattle (*Acacia dealbata*) is present. Along Monterey Road, oleander (*Nerium oleander*), California black oak (*Quercus kelloggii*), California sycamore (*Platanus racemose*), valley oak (*Quercus lobata*), and deodar cedar (*Cedrus deodara*). These areas were likely historically described as California annual grasslands but currently meet the definition of "ornamental woodland" within the context of the SCVHP. The SCVHP identifies this habitat type is suitable for many wildlife species including, American robin (*Turdus migratorius*), mockingbird (*Mimus polyglottos*), American crow (*Corvus brachyrhynchos*), and European house sparrow (*Passer domesticus*). The SCVHP also indicates the potential for lizards and woodrats.

3.2 POTENTIAL WATERS OF THE U.S./STATE

A total of 0.52 acre of potential waters of the U.S./State were mapped in the project area, including six separate wetlands (JMC 2021). These wetlands consist of three interconnected drainage ditches with in-channel wetlands, a stormwater detention basin, three depressional wetlands, and a small wetland located at the detention basin discharge pipe. The U.S. Army Corps of Engineers (USACE) issued an Approved Jurisdictional Determination for the project

site by letter of February 1, 2022, identifying only one 0.042-acre wetland as a water of the U.S.; the other five wetlands were determined to be isolated wetlands and therefore not waters of the U.S. The Regional Water Quality Control Board (RWQCB) is expected to consider all six wetlands on the site to be waters of the State.

3.3 SOILS

According to the Natural Resource Conservation Service, one soil map unit occurs within the Study Area: San Ysidro loam, 0 to 2 percent slopes, Major Land Resource Area (MLRA) 14 (Attachment 3; NRCS 2021). San Ysidro soils are found on terraces, alluvial fans, and valley floors, and consist of alluvium derived from sedimentary rock. They are moderately well drained and have a low runoff class. The available water supply is low, and the water table is more than 80 inches below the surface. A loamy claypan is present 16 to 24 inches below the surface, restricting water infiltration. Approximately 2% of soils in this map unit are rated as hydric.

Soils observed during the field survey were consistent across the site. The soils were highly compacted with a loamy/clayey texture. Soil matrix colors varied only slightly between sample points (10YR 3/2, 10YR 3/3, or 2.5Y 4/2). Redox concentrations were distinct and numerous around wetlands, and even samples in clearly upland locations contained small quantities of redox.

3.4 HYDROLOGY

The project area derives its hydrology from direct precipitation and off-site developments. The two smaller drainages ditches and the stormwater detention basin were constructed in 2004-2005. One of the ditches channels runoff from the eastern side of Monterey Road, and the other ditch and the detention basin were constructed in order to manage runoff from the development to the north of the project site. The two smaller ditches converge with the old drainage ditch spanning the width of the property from Monterey Road to the railroad tracks. The old drainage ditch receives its hydrology from the large off-site detention basin located southeast of the project area. During large storm events, water from the off-site detention basin flows into a 48-inch gravity overflow, discharging into the old ditch through three 24-inch pipes. Flow from the old drainage ditch leaves the property through a 36-inch culvert under the railroad tracks. Stormwater that is not detained in the detention basin leaves the property through another culvert under the railroad tracks and then flows north, converging with the old drainage ditch outside of the property boundary.

During the field survey, observed indicators of hydrology in the project area included drainage patterns, shallow aquitard, biotic crust, and oxidized rhizospheres along living roots. Some wetland sample points had saturation or inundation visible on aerial imagery. Conditions were dry during the site visit due to the time of year and severe drought conditions.

SECTION 4. BIOLOGICAL RESOURCE CONSTRAINTS

4.1 SPECIAL STATUS SPECIES

No special-status species were found during the site survey on September 17, 2021. Special-status species include those considered to be rare by state and federal resource agencies (CDFW and the United States Fish and Wildlife Service [USFWS]) and/or the scientific community (CNPS), and are accordingly legally protected via local, state, and/or federal law. For purposes of this assessment, special-status species are defined as plants or animals protected pursuant to:

1. Federal Endangered Species Act (FESA);
2. State Endangered Species Act (CESA);
3. California Fish and Game Codes that protect nesting birds (Section 3503), raptors (Section 3503.5), and "fully protected species" (Sections 3511, 4700, 5050, and 5515);
4. Migratory Bird Treaty Act;
5. CNPS "rare" designation - all of the plants constituting California Rare Plant Rank 1A, 1B, and 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act), or Secs. 2062 and 2067 of the CESA of the California Department of Fish and Game Code, and are eligible for state listing (CNPS Inventory, 6th Edition, 2001); and/or
6. CDFW "species of special concern" (SSC) designation.

For a brief description of all special-status wildlife known to occur in the vicinity of 18545-18565 Monterey Road, see the attached Special-Status Plant/Wildlife Species Known to Occur in the Vicinity of the 18545-18565 Monterey Road (Tables 2 and 3).

4.2 PLANTS

According the CNPS Rare Plant Inventory and CNDDB, a total of 15 special-status plant species have been documented within the Morgan Hill U.S. Geological Survey (USGS) 7.5' topographic quadrangle, and 11 have been documented within three miles of 18545-18656 Monterey Road (Figure 5). Of the 15 species identified, 11 of these require or primarily occur on serpentine soils, which do not exist on the site; these include Tiburon paintbrush (*Castilleja affinis var. neglecta*), pink creamsacs (*Castilleja rubicundula var. rubicundula),* coyote ceanothus (*Ceanothys ferrisiae*), dwarf soaproot (*Chlorogalum pomeridianum var. minus*), Mt. Hamilton fountain thistle (*Cirsium fontinale var. campylon*), Santa Clara Valley dudleya (*Dudleya abramsii ssp. setchellii),* fragrant fritillary (*Fritillaria liliacea*), smooth lessingia (*Lessingia micradenia var. glabrata*), woodland wollythreads (*Monolopia gracilens*), Metcalf Canyon jewelflower (*Streptanthus albidus ssp. albidus*), and most beautiful jewelflower (*Streptanthus albidus ssp. peramoenus*). Additionally, San Franciso collinsia (*Collinsia multicolor*), arcuate bush-mallow (*Malacothamnus arcuatus*), Hall's Bush Mallow (*Malacothamnus hallii*), and

Loma Prieta hoita (*Hoita strobilina*) grow in coastal scrub or foothill woodland or chaparral, which is not present on the site (Table 2).

Given the lack of appropriate habitat and the on-going land management, none of these species are likely to occur on the site, and rare plant surveys will not be required.

MITIGATION MEASURES (Rare Plants): None

4.2.1 TREES

Pursuant to the Morgan Hill Heritage or Landmark Tree Ordinance, the removal of trees that have been designated as "significant" requires a permit. Indigenous trees measuring 18 inches at a height of 4.5 feet and any street tree is defined as a "significant" tree. Multiple trees meet this definition and would therefore require permitting for removal.

MITIGATION MEASURES (Trees): Project must comply with City Ordinance

4.3 WILDLIFE

4.3.1 STATE AND FEDERALLY LISTED WILDLIFE

CNDDB records for 11 special-status wildlife species are documented within three miles of the site (Figure 6). These include Opler's longhorn moth (*Adela oplerella*), the Central California Distinct Population Segment (DPS) of California tiger salamander (*Ambystoma californiense*), burrowing owl (*Athene* cunicularia), western bumble bee (*Bombus* occidentalis), white-tailed kite (*Elanus leucurus*), western pond turtle (*Emys marmorata*), Bay checkerspot butterfly (*Euphydryas editha bayensis*), San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), coast horned lizard (*Phrynosoma coronatum*), California red-legged frog (*Rana draytonii*), and American badger (*Taxidea taxus*). Historic records for California tiger salamander, western bumble bee, and coast horned lizard overlap 18545-18565 Monterey Road. The September 2021 survey did not identify any evidence of special-status wildlife species.

According to CNDDB, California tiger salamander is presumed to be extirpated from the project area. The project area is surrounded by urban development on all sides. Though there are periodically or seasonally ponded areas both on the project site and across Monterey Road at the Bufferfield Retention Basin, these features are unlikely to provide habitat for California tiger salamander because it is isolated from known populations of this species (there are no habitat corridors to existing populations). The same is true to California red-legged frog and western pond turtle, both of which require ponded water for survival. Known populations of these species are currently restricted to the undeveloped foothills surrounding the City of Morgan Hill, and the project area is isolated from these populations by dense urban development. Therefore, development of the project site is not expected to result in any effect

to California tiger salamander, California red-legged frog, or western pond turtle

Two species of bumble bees that may occur regionally have been petitioned to be added to the California Endangered Species Act and are currently under consideration by CDFW (Attachment 4), including the crotch bumble bee (*Bombus crotchii*) and the western bumble bee. Neither species currently has State listing status, but they are included in this analysis in the event that the listing request is granted. Both species have colonial nests in underground cavities and are unlikely to occur on the site due to current management practices (routine and regular discing). Discing has the effect of removing potential flowering plants required as a food source to these species, as well as regularly disturbing upper horizons of soils (i.e., not conducive to supporting underground cavities). A historic (1940) record of western bumble bee is recorded in the CNDDB within the "vicinity of Morgan Hill," and both species may occur regionally. However, the site does not represent habitat for either species due to lack of underground nesting opportunities and lack of flowering plants; development of the site is not expected to result in any effect to these species and further survey is not necessary.

An historic record (1894) for the coast horned lizard (now referred to as Blainville's horned lizard [*Phrynosoma blainvillii*]) occurs in the "vicinity of Morgan Hill." This is the only record for this species within approximately nine miles of the project site. Due to the long-term, extensive development surrounding the project site, this species is not expected to occur onsite. Development of the project site is not expected to result in any effect to coast horned lizard.

Opler's longhorn moth and Bay checkerspot butterfly are found in association with serpentine soils, which the site does not contain. Therefore, development of the project site is not expected to result in any effect to Opler's longhorn moth or Bay checkerspot butterfly.

Two regionally-known special-status species, American badger and San Francisco dusky-footed woodrat, are highly unlikely to occur on the site due to a lack of connective corridor to habitat present in the foothills west of Hale Avenue. These two species are not covered under the Santa Clara Valley Habitat Plan but have a state ranking of vulnerable (American badger) and imperiled (woodrat). During the site survey, there were no noted middens for woodrats; these middens are usually obvious when present and consist of large collections of twigs and woody debris. Middens can range in size from approximately 3 cubic feet to approximately 1 cubic yard (27 cubic feet) and are typically located at the base of trees or shrubs. Similarly, there was no evidence of badgers on the site (no burrows or dens that could be utilized by this species), and regular site discing would prevent establishment of den sites and effectively reduce prey base. Further, neither San Francisco dusky footed woodrat, nor American badger is likely to emigrate to the site due to lack of habitat connectivity and proximity to development (i.e., the site is completely surrounded by urban development and has no natural corridors to existing habitat). Development of the project site is not expected to result in any effect to either American badger or San Francisco dusky-footed woodrat.

The two bird species identified by the CNDDB both have the potential to nest at the site. The

verified presence of small mammal burrows during the November site visit constitutes potential nesting habitat for western burrowing owl, and the onsite trees represent potential nesting structure for white-tail kites. The closest documented occurrence for white-tailed kite is approximately 2.25 miles north of the project area. Burrowing owls have been documented within a mile of the project area, both this population is considered possibly extirpated (See Figure 6).

Onsite trees represent potential nesting habitat for white-tailed kites, and the majority of the site represents potential foraging habitat. "Condition 1 – Avoid Direct Impacts on Legally Protected Plant and Wildlife Species" within the SCVHP includes white-tailed kites. The SCVHP does not include specific survey requirements for this species; however, CDFW recommends preconstruction surveys for nesting white-tailed kites using the following protocol:

> "If construction activities occur between February 1 and August 31, the applicant will conduct surveys for Swainson's hawk and white tailed kite in accordance with the Swainson's Hawk Technical Advisory Committee 2000 guidelines (SHTAC 2000), or current guidance. Surveys will cover a minimum of a 0.5-mile radius around the construction area. If nesting Swainson's hawks or white tailed kites are detected, CDFW will establish a 0.5 mile no disturbance buffer. Buffers will be maintained until a qualified CDFW biologist has determined that the young have fledged and are no longer reliant upon the nest or parental care for survival.
>
> If potential nesting trees are to be removed during construction activities, removal will take place outside of Swainson's hawk and white tailed kite nesting season and CDFW will develop a plan to replace known nest trees at a ratio of 3:1. If replacement planting is implemented, monitoring will be conducted annually for 5 years to assess the mitigation's effectiveness. The performance standard for the mitigation will be 65% survival of all replacement plantings."

Potential nest trees will include those trees with current (at the time of the surveys) or documented historic use by white-tailed kites for nesting. The Swainson's Hawk Technical Advisory Committee additionally defines "survey periods" and recommends that survey efforts occur at least two survey periods prior to the initiation of the proposed project.

The site is not identified in the SCVHP as "Occupied Nesting Burrowing Owl Habitat," "Potential Burrowing Owl Nesting/Overwintering Habitat Depending on Site Conditions," or "Overwintering Only Habitat" (See Figure 5-11 in the SCVHP); however, the project site should be considered to represent "Potential Burrowing Owl Nesting/Overwintering Habitat Depending of Site-Specific Conditions" based on the site assessment. As such, protocol-level surveys are not required by the SCVHP, and the only requirement is for a preconstruction survey (Condition 15 in Chapter 6 of the SCVHP). This survey includes the following:

> "Prior to any ground disturbance related to covered activities, a qualified biologist will conduct preconstruction surveys in all suitable habitat areas as identified during

habitat surveys. The purpose of the preconstruction surveys is to document the presence or absence of burrowing owls on the project site, particularly in areas within 250 feet of construction activity.

To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of three hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their location will be mapped.

Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the project proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and construction). To avoid last minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction."

If preconstruction surveys find that the site is occupied by western burrowing owls, then avoidance measures must be implemented pursuant to the SCVHP. These include the establishment of an avoidance and minimization plan, approval by the Implementing Entity and the Wildlife Agencies, and onsite biological monitoring. In some cases, the project may be approved for relocation of onsite burrowing owls.

In addition, although not documented by the CNDDB, there exists the potential for two additional special-status bird species: Swainson's hawk (*Buteo swainsonii*) and tricolored blackbird (*Agelaius tricolor*). Onsite trees represent potential nest sites for Swainson's hawk, while tricolored blackbirds may encounter nesting habitat at the property located east of Monterey Road (Butterfield Retention Basin) and may forage at the project site. As such, in the absence of preconstruction nesting-bird surveys, the presence of nesting burrowing owls, white-tailed kite, Swainson's hawk, and foraging tricolored blackbirds cannot be ruled out.

The initial survey of the site has found that the southern end of the site is within 250 feet of the Butterfield Retention Basin, which represents potential nesting substrate. Therefore, the project has potential to affect tri-colored blackbirds. The SCVHP requires a preconstruction survey for any project that cannot avoid work within the 250-foot buffer zone (Condition 17 in Chapter 6 of the SCVHP), as outlined below:

"If the project proponent chooses not to avoid the potential nesting habitat and the 250-foot buffer, additional nesting surveys are required. Prior to any ground disturbance related to covered activities, a qualified biologist will: 1. Make his/her best

effort to determine if there has been nesting at the site in the past 5 years. This includes checking the CNDDB, contacting local experts, and looking for evidence of historical nesting (i.e., old nests). 2. If no nesting in the past 5 years is evident, conduct a preconstruction survey in areas identified in the habitat survey as supporting potential tricolored blackbird nesting habitat. Surveys will be made at the appropriate times of year when nesting use is expected to occur. The surveys will document the presence or absence of nesting colonies of tricolored blackbird. Surveys will conclude no more than two calendar days prior to construction.

To avoid last minute changes in schedule or contracting that may occur if an active nest is found, the project proponent may also conduct a preliminary survey up to 14 days before construction. If a tricolored blackbird nesting colony is present (through step 1 or 2 above), a 250-foot buffer will be applied from the outer edge of all hydric vegetation associated with the site and the site plus buffer will be avoided (see below for additional avoidance and minimization details). The Wildlife Agencies will be notified immediately of nest locations. "

If preconstruction surveys find that the site is within 250 feet of a nesting tricolored blackbird colony, then avoidance and minimization measures must be implemented pursuant to the SCVHP. These include (in most cases) a prohibition of activities within 250 feet of the outer edge of all hydric vegetation associated with the colony and implementation of biological monitoring. In some cases, the buffer zone may be adjusted by the Wildlife Agencies or the Implementing Entity.

Onsite trees represent potential nesting habitat for Swainson's hawk, and the majority of the site represents potential foraging habitat. The SCVHP does not include specific survey requirements for this species; however, CDFW recommends preconstruction surveys for nesting Swainson's Hawk should be conducted using the following protocol:

"If construction activities occur between February 1 and August 31, the applicant will conduct surveys for Swainson's hawk and white tailed kite in accordance with the Swainson's Hawk Technical Advisory Committee 2000 guidelines (SHTAC 2000), or current guidance. Surveys will cover a minimum of a 0.5-mile radius around the construction area. If nesting Swainson's hawks or white tailed kites are detected, CDFW will establish a 0.5 mile no disturbance buffer. Buffers will be maintained until a qualified CDFW biologist has determined that the young have fledged and are no longer reliant upon the nest or parental care for survival.

If potential nesting trees are to be removed during construction activities, removal will take place outside of Swainson's hawk and white tailed kite nesting season and CDFW will develop a plan to replace known nest trees at a ratio of 3:1. If replacement planting is implemented, monitoring will be conducted annually for 5 years to assess the mitigation's effectiveness. The performance standard for the mitigation will be 65% survival of all replacement plantings."

Potential nest trees will include those trees with current (at the time of the surveys) or documented historic use by Swainson's hawks for nesting. The Swainson's Hawk Technical Advisory Committee additionally defines "survey periods" and recommends that survey efforts occur at least two survey periods prior to the initiation of the proposed project.

The project site is not within designated critical habitat for any federally-listed wildlife species (Figure 7).

MITIGATION MEASURES (California tiger salamander): None

MITIGATION MEASURES (California red-legged frog): None

MITIGATION MEASURES (western pond turtle): None

MITIGATION MEASURES (Bay checkerspot butterfly): None

MITIGATION MEASURES (coast horned lizard): None

MITIGATION MEASURES (American badger): None

MITIGATION MEASURES (San Francisco dusky-footed woodrat): None

MITIGATION MEASURES (white-tailed kite): Preconstruction survey per Swainson's Hawk Technical Advisory Committee 2000 guidelines

MITIGATION MEASURES (western burrowing owl): Preconstruction survey per SCVHP

MITIGATION MEASURES (tricolored blackbird): Preconstruction survey per SCVHP

MITIGATION MEASURES (Swainson's hawk): Preconstruction survey per Swainson's Hawk Technical Advisory Committee 2000 guidelines

MITIGATION MEASURES (crotch bumble bee): none

MITIGATION MEASURES (western bumble bee): none

MITIGATION MEASURES (critical habitat): none

4.3.2 NESTING BIRDS

The trees and grassland/herbaceous habitats that occur within and adjacent to 18545-18565 Monterey Road provide suitable nesting habitat for many species of passerine (perching) birds and raptors (birds of prey). No nests were observed in the trees; however, due to the mobile nature of birds and the seasonality of their nesting cycle and in light of the presence of abundant suitable nesting habitat onsite, it is likely that birds will nest within the site during future nesting seasons. In the absence of preconstruction surveys for nesting birds, development-related impacts to nesting birds cannot be ruled out. If project-related activities associated with the development of the site were to commence during the bird nesting season (generally taken to mean February 1 through August 31), preconstruction nesting bird surveys would be required. These surveys are to include both tree and ground nesting species. Active nests found during surveys will either be avoided completely (to the conclusion of nesting) or will trigger

appropriate avoidance strategy development with the City of Morgan Hill, CDFW, or the SCVHP managers. Strategies typically include establishment of appropriate buffer zones (vary by species) and biological monitoring by a qualified biologist. Preconstruction surveys for nesting raptors should be conducted as outlined for western burrowing owl, white-tailed kite, and Swainson's hawk (above). In addition, preconstruction survey for nesting passerines should occur within two-weeks (14 days) of initiation of project-related activities (rough grading).

MITIGATION MEASURES (Nesting Birds): Preconstruction survey 14 days prior to initiation of project activities

4.3.3 WILDLIFE CORRIDORS

The project site is located in the City of Morgan Hill to the south of the intersection of Monterey Road and Jarvis Drive (Figure 1). It is roughly triangular in shape and is bounded by elevated railroad tracks to the west, Monterey Road to the east, and commercial development to the north. The site is completely surrounded by urban development and does not provide connectivity between undeveloped areas, nor does it abut any open space or reserves. As such, the development of the site is not expected to result in any effect to existing wildlife corridors.

MITIGATION MEASURES (Wildlife Corridors): none

4.4 WATERS OF THE U.S./STATE

A total of 0.52 acre of potential waters of the U.S./State were mapped in the project area, including six separate wetlands. The project proposes to discharge dredged or fill material into these wetlands and therefore requires Clean Water Act Section 404 and Section 401 permits from USACE and the RWQCB, respectively. The applicant will be required to comply with any avoidance and minimization requirements in the Clean Water Act permits.

Additionally, Condition 3 in Chapter 6 of the SCVHP requires that projects "Maintain Hydrologic Conditions and Protect Water Quality." This condition requires projects to comply with National Pollutant Discharge Elimination System (NPDES) permit requirements, to provide stormwater quality control, and to avoid and minimize effects to local waterways. This includes measures, performance standards, and control measures to minimize increases of peak discharge of stormwater and pollutant discharge to protect water quality, including during project construction. The proposed project will comply with this condition.

Condition 12 in Chapter 6 of the SCVHP outlines wetland and pond avoidance and minimization requirements. This condition includes the requirement that projects avoid and minimize impacts to wetlands to the maximum extent practicable and measures to limit impacts to avoided or temporarily impacted wetlands. The project proponent has determined that it is impracticable to avoid permanent impacts to all the wetlands on the project site, so wetland fees will be paid to cover the costs of compensatory mitigation required by the

SCVHP.

MITIGATION MEASURES (Waters of the U.S. / State): The proposed project will comply with Clean Water Act permit requirements and Conditions 3 and 12 of the SCVHP.

4.5 OTHER CONSTRAINTS

4.5.1 LOCAL, STATE, AND FEDERAL PLANS

4.5.1.1 Santa Clara Valley Habitat Plan

In 2012 the Santa Clara Valley Habitat Plan was adopted. It was developed with the California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) to guide permitting decisions in relation to the protection of natural resources. The property at 18545-18565 Monterey Road falls within the study area for the Habitat Plan and is identified as "Potential Burrowing Owl Nesting/Overwintering Habitat Depending on Site-Specific Conditions" and requires avoidance of breeding habitat as well as pre-construction surveys. Additionally, the project site is within 250 feet of potential nesting habitat for tricolored blackbird and must therefore meet the survey and avoidance requirements of the SCVHP.

Special status plant surveys are not required because habitat components, including serpentine soils, are absent for species of concern, and the site is routinely disced and mowed (there is not any suitable habitat).

Because the project is within the SCVHP permit area, it will be subject to conditions of the Plan. These conditions are outlined in Chapter 6 of the SCVHP and are included in Attachment 5 to this report.

4.5.1.3 City of Morgan Hill General Land Use Plan

The property 18545-18565 Monterey Road is currently designated for commercial use by the City's general land use plan. The project proponent is pursuing a general plan amendment to change the land use designation to mixed-use flex. This designation allows for a mix of residential, commercial, and office uses applied either vertically (i.e., one structure with multiple uses) or horizontally (i.e., structures with different land uses located adjacent to one another).

SECTION 5. CONCLUSIONS AND RECOMMENDATIONS

The majority of 18545-18565 Monterey Road is regularly disturbed, but portions of the site retain some potential to provide habitat for special-status wildlife species that require mitigation measures, as specified below. Additional site surveys for special status plants are unnecessary as presence of these species is not expected given the lack of habitat and the routine and regular discing/mowing of the site. However, the project site provides suitable nesting habitat for white-tailed kite (California fully protected species), burrowing owl, and Swainson's hawk, and is within 250 feet of potential nesting habitat for tricolored blackbird. Therefore, preconstruction surveys for these species are required. If work is scheduled to commence during the nesting season (February 1 through August 31), a preconstruction nesting bird survey should be conducted within all suitable nesting habitat prior to the commencement of vegetation removal/ground disturbance. Burrowing owls may occupy burrows outside of the nesting season, and as such, a bird survey should be conducted prior to earthwork, even if commencement is outside of the nesting season.

According to the USFWS Environmental Conservation Online System (ECOS), 18545-18565 Monterey Road is not within critical habitat for the California tiger salamander, California red-legged frog, or Bay checkerspot butterfly (the only designated critical habitat local to Morgan Hill). Therefore, the proposed project is not expected to affect designated critical habitat.

The project will implement all applicable SCVHP conditions (Attachment 5) and the following mitigation measures to protect biological resources:

- MITIGATION MEASURES (Trees): Project must comply with City Ordinance
- MITIGATION MEASURES (white-tailed kite): Preconstruction survey per Swainson's Hawk Technical Advisory Committee 2000 guidelines
- MITIGATION MEASURES (western burrowing owl): Preconstruction survey per SCVHP
- MITIGATION MEASURES (tricolored blackbird): Preconstruction survey per SCVHP
- MITIGATION MEASURES (Swainson's hawk): Preconstruction survey per Swainson's Hawk Technical Advisory Committee 2000 guidelines
- MITIGATION MEASURES (Nesting Birds): Preconstruction survey 14 days prior to initiation of project activities
- MITIGATION MEASURES (Waters of the U.S. / State): The proposed project will comply with Clean Water Act permit requirements and Conditions 3 and 12 of the SCVHP.

SECTION 6. LITERATURE CITED

CDFW. 2022a. California Wildlife Habitat Relationships System. Accessed April 2022. Available from: https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats.

_____. 2022b. California Natural Diversity Database (CNDDB). Accessed April 2022. Available from: https://wildlife.ca.gov/Data/CNDDB.

CNPS. 2022. CNPS Rare Plant Inventory. Accessed April 2022. Available from: https://rareplants.cnps.org/.

ICF International. 2012. Final Santa Clara Valley Habitat Plan. Prepared for the County of Santa Clara, City of San Jose, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, and Santa Clara Valley Transportation Authority. August. Available from: http://scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan.

Jepson Flora Project. 2021. Jepson eFlora. Accessed September 2021. Available from: http://ucjeps.berkeley.edu/eflora/.

JMC. 2021. U.S. Army Corps of Engineer Delineation Report – 18545 Monterey Road. Prepared for City Ventures. October.

NRCS. 2021. Web Soil Survey. Accessed September 2021. Available from: http://websoilsurvey.nrcs.usda.gov/.

Swainson's Hawk Technical Advisory Committee. 2000. Recommended timing and methodology for Swainson's hawk nesting surveys in California's Central Valley.

USFWS. 2022. USFWS Threatened & Endangered Species Active Critical Habitat Report. Accessed April 2022. Available from: https://ecos.fws.gov/ecp/report/table/critical-habitat.html.

Figures

Figure 1. Site and Vicinity Map

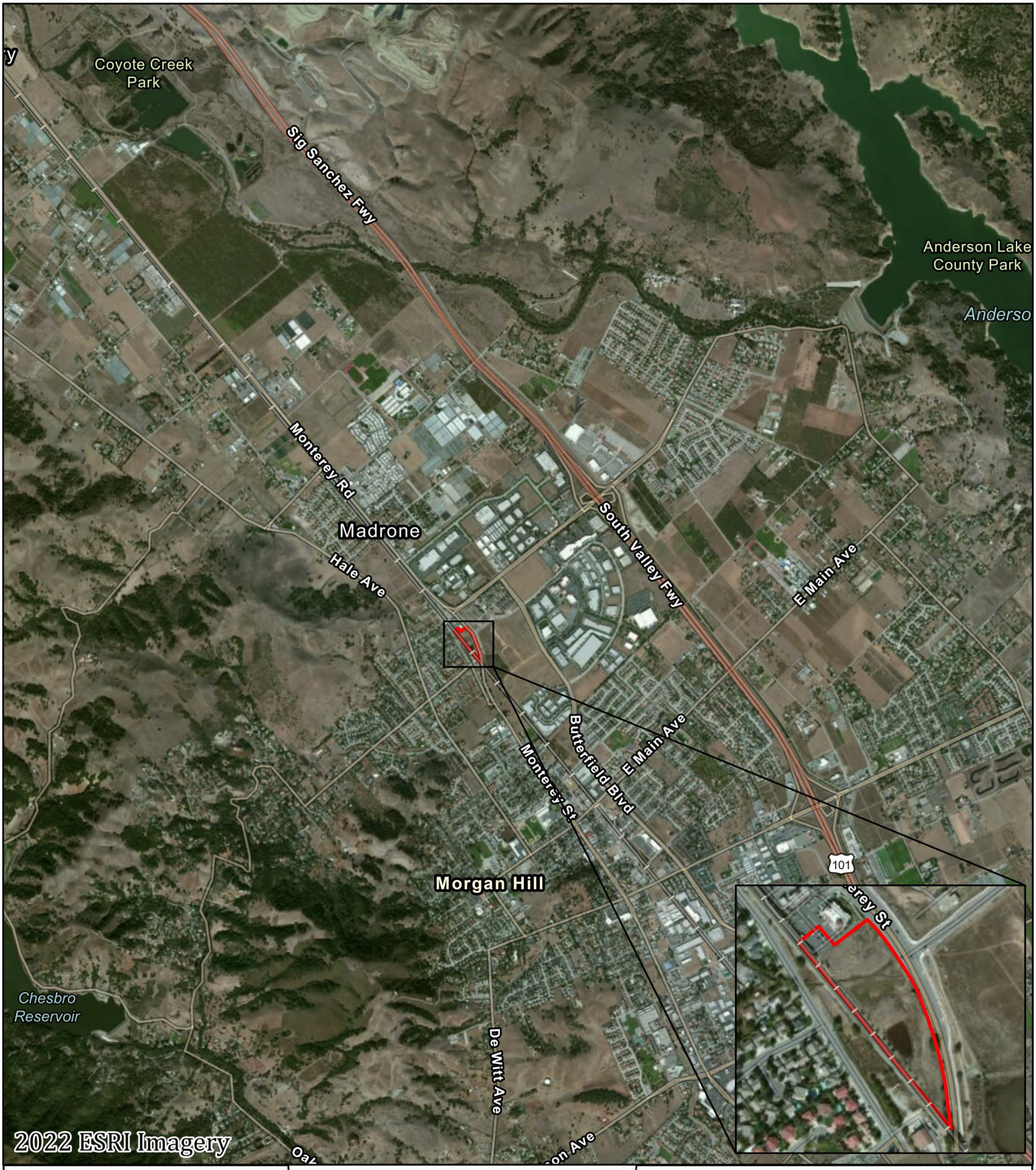
Figure 2. SCVHP Land Use Categories

Figure 3. Land Cover Types

Figure 4. Special-Status Plants

Figure 5. Special-Status Wildlife

Figure 6. Critical Habitat



JOHNSON MARIGOT CONSULTING, LLC

Map Created 4/21/2022
by N. Schowalter

Legend

Project Area

18545-18565 Monterey Road

Figure 1. Site and Vicinity Map

0 0.5 1
Miles

N

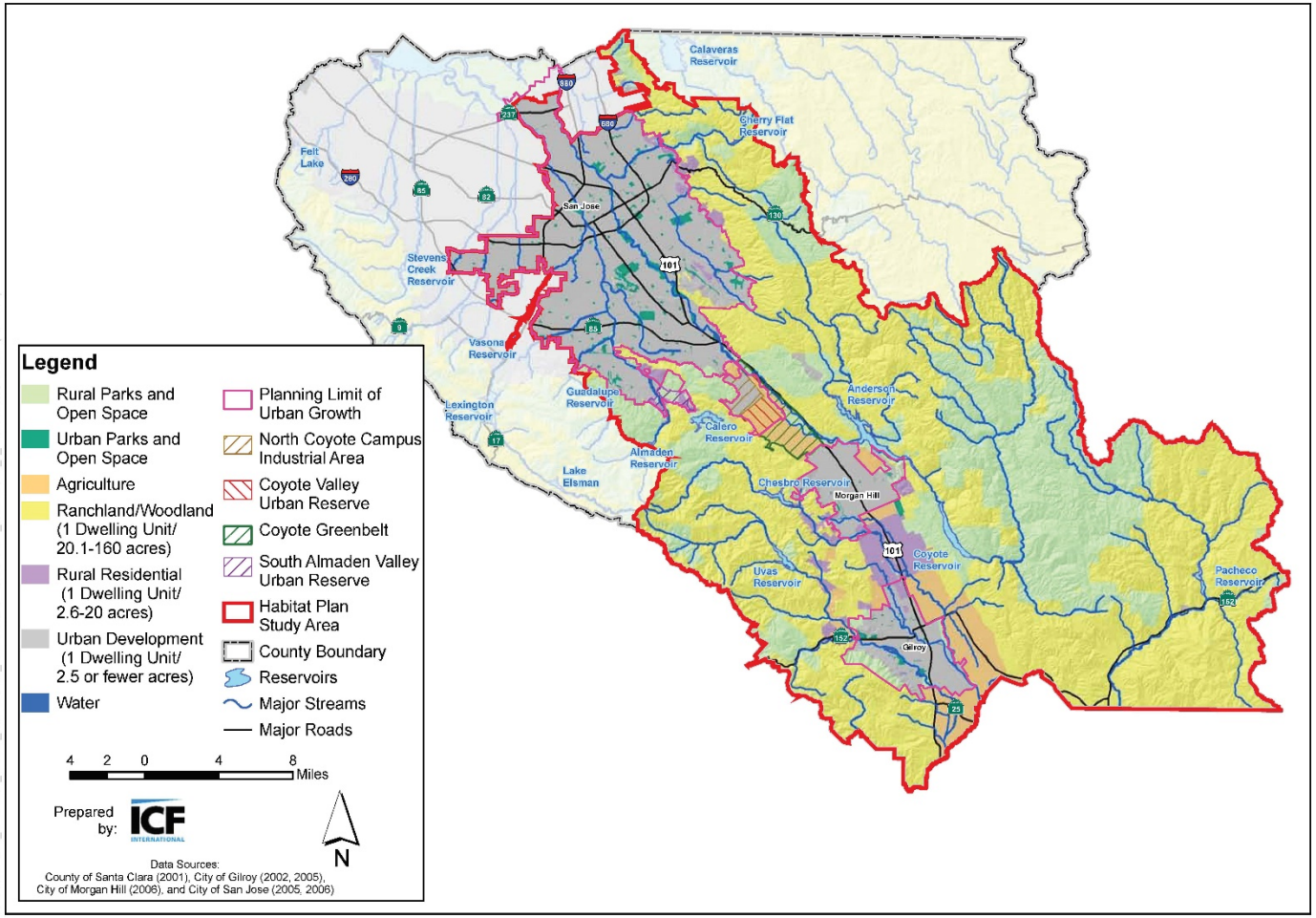


Figure 2-2
Santa Clara Valley Habitat Plan Land Use Categories



JOHNSON MARIGOT CONSULTING, LLC

Map Created 4/21/2022
by N. Schowalter

Legend

- Project Area
- Seasonal Wetland
- Ornamental Woodland
- Annual Grassland
- Urban-Suburban

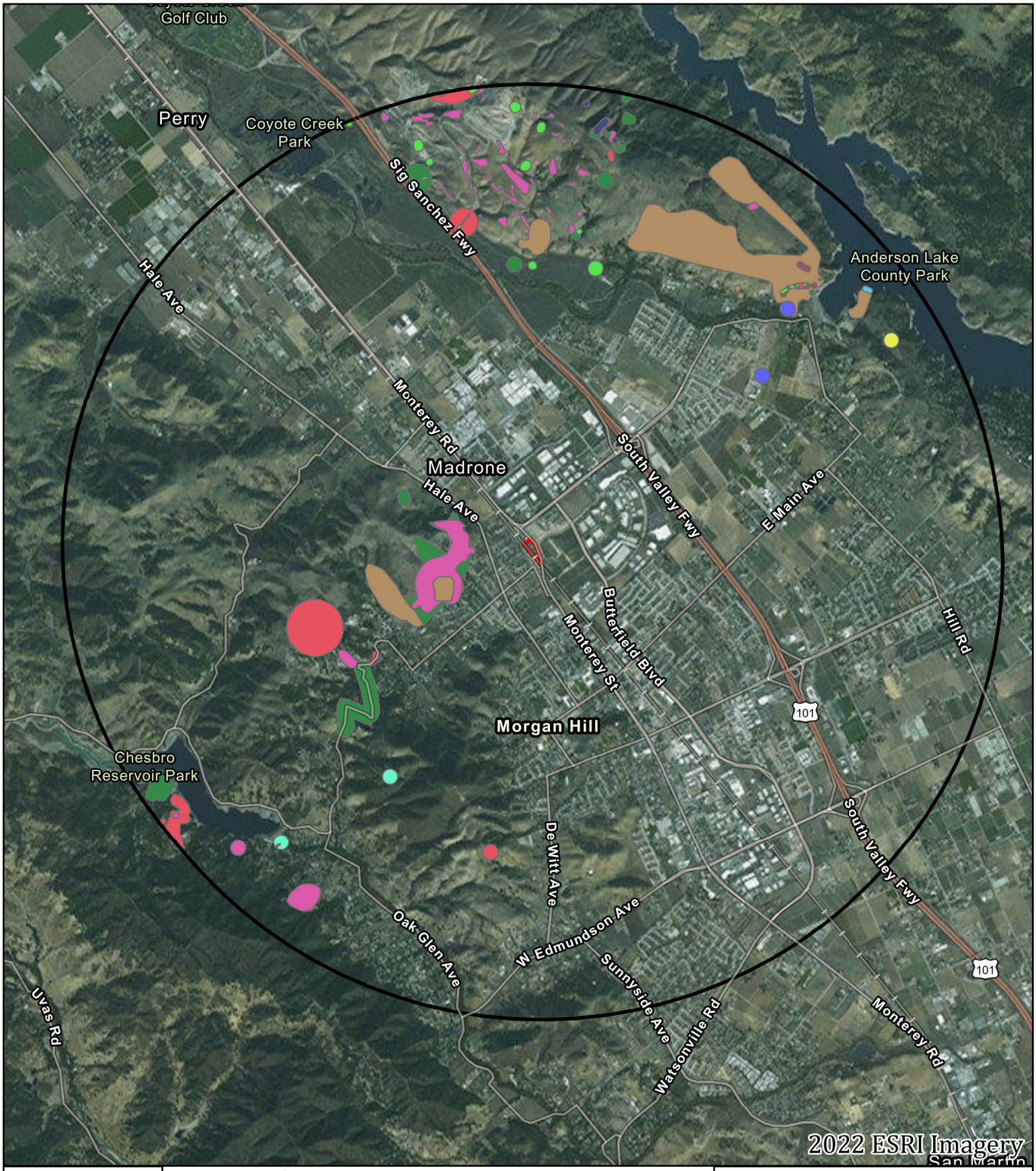
18545-18565 Monterey Road

Figure 3. Land Cover Types

N

0 100 200

Feet



Legend

- Project Area
- 3-Mile Buffer

CNDDB Plants

- Coyote ceanothus
- Hall's bush-mallow
- Mt. Hamilton thistle
- San Francisco collinsia
- Santa Clara Valley dudleya
- Tiburon paintbrush
- arcuate bush-mallow
- fragrant fritillary
- most beautiful jewelflower
- smooth lessingia
- woodland woollythreads

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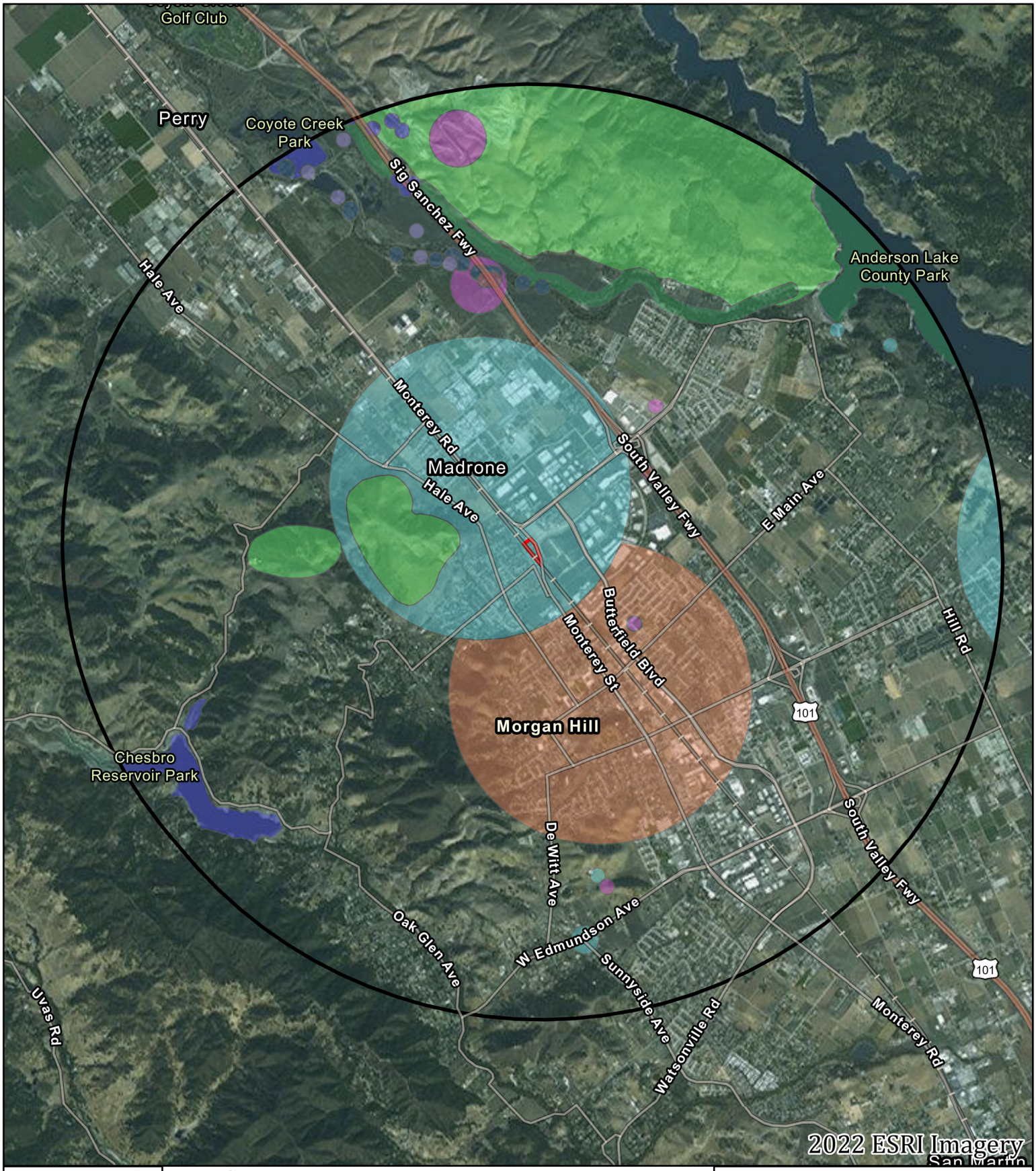
Map Created 4/11/2022
by N. Schowalter

18545-18565 Monterey Road

Figure 4. Special-Status Plants

0 0.75 1.5
Miles

N



JOHNSON MARIGOT CONSULTING, LLC

Map Created 4/11/2022
by N. Schowalter

Legend

- Project Area
- 3-Mile Buffer

CNAME

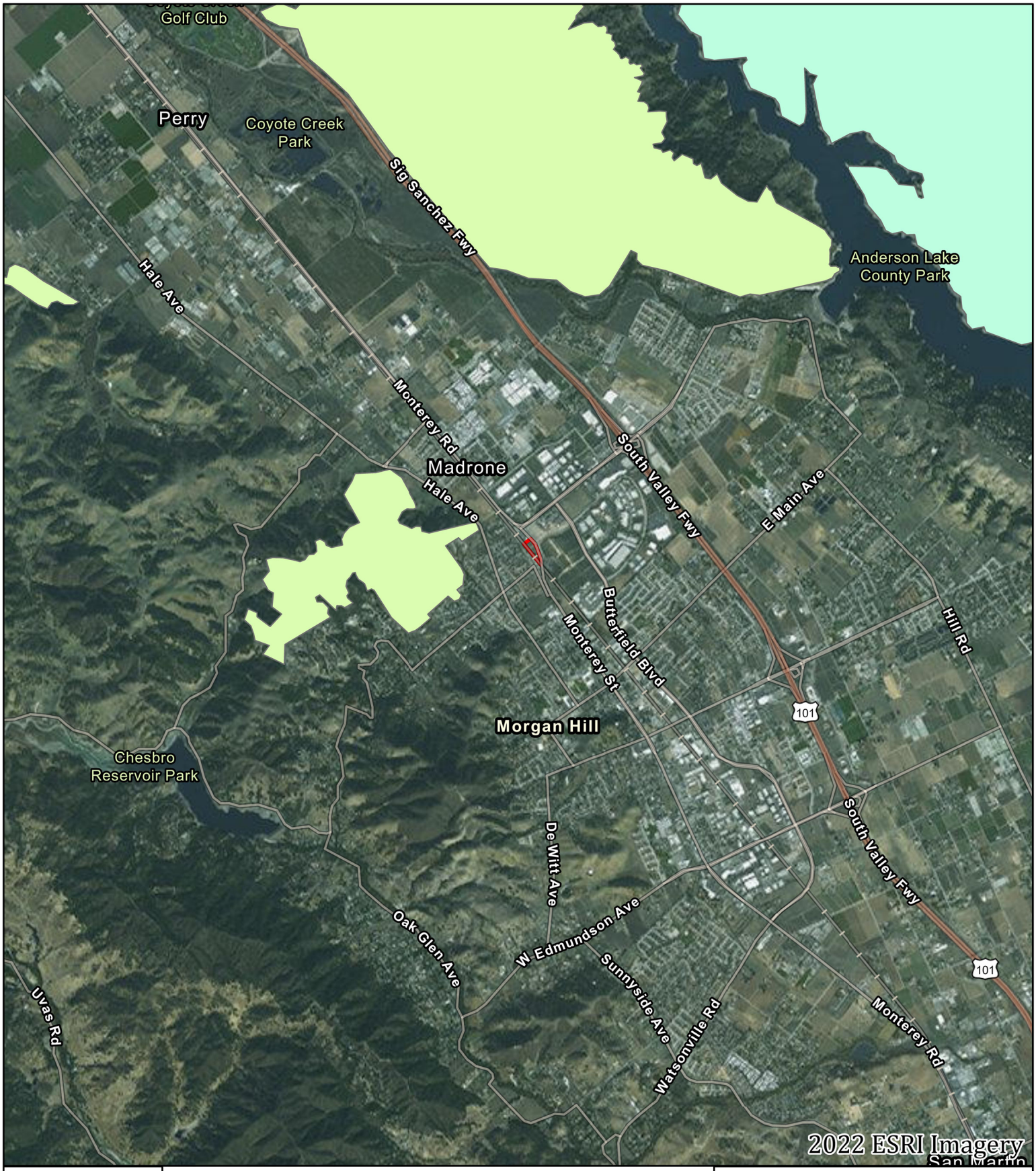
- American badger
- Bay checkerspot butterfly
- California red-legged frog
- California tiger salamander - central California DPS
- Opler's longhorn moth
- San Francisco dusky-footed woodrat
- burrowing owl
- coast horned lizard
- western bumble bee
- western pond turtle
- white-tailed kite

18545-18565 Monterey Road

Figure 5. Special-Status Wildlife

0 0.75 1.5
Miles

N



Legend

- Project Area

Critical Habitat

- Bay checkerspot butterfly
- California red-legged frog

JOHNSON MARIGOT CONSULTING, LLC

Map Created 4/11/2022
by N. Schowalter

18545-18565 Monterey Road

Figure 6. Critical Habitat

0 0.75 1.5
Miles

N

Tables

Table 1. Plants Observed at 18545-18565 Monterey Road

Table 2. Special-Status Plant Species Known to Occur in the Vicinity of 18545-18565 Monterey Road

Table 3. Special-Status Wildlife Species Known to Occur in the Vicinity of 18545-18565 Monterey Road

Table 1. Plants Observed at 18545-18565 Monterey Road

Scientific Name	Common Name
Acacia dealbata	silver wattle
Avena fatua	wild oat
Baccharis pilularis	coyote brush
Bromus diandrus	ripgut brome
Bromus hordeaceus	soft brome
Cedrus deodara	deodar cedar
Cichorium intybus	chicory
Convolvulus arvensis	field bindweed
Cyperus eragrostis	tall cypress
Distichlis spicata	saltgrass
Dittrichia graveolens	stinkwort
Echinochloa crus-galli	barnyard grass
Epilobium brachycarpum	annual fireweed
Erodium botrys	broad leaf filaree
Festuca perennis	Italian rye grass
Hordeum marinum	seaside barley
Hordeum murinum	foxtail barley
Jugluns hindsii	Northern California black walnut
Medicago polymorpha	bur clover
Nerium oleander	oleader
Persicaria lapathifolia	dock-leaf smartweed
Persicaria maculosa	spotted ladysthumb
Plantago lanceolata	English plantain
Platanus racemosa	California sycamore
Polypogon monspeliensis	rabbitsfoot grass
Populus fremontii	Fremont cottonwood
Pyrus calleryana	Callery pear
Quercus agrifolia	coast live oak
Quercus kelloggii	California black oak
Quercus lobata	valley oak
Raphanus sativus	cultivated radish
Rumex crispus	curly dock
Salix exigua	narrow leaved willow
Sequoia sempervirens	coast redwood
Typha latifolia	common cattail
Xanthium stumarium	rough cocklebur

Table 2. Special-Status Plant Species Known to Occur in the Vicinity of 18545-18565 Monterey Road

Common Name	Scientific Name	Status	Habitat type	Occurence information	Probability of occuring on site
Tiburon paintbrush	*Castilleja affinis var. neglecta*	Federally Endangered, State Threatened, CNPS 1B.2	Serpentine chaparral, valley, and foothill grasslands.	Mapped within Morgan Hill Quad.	**None**. No suitable habitat occurs on or around the site.
Pink Creamsacs	*Castilleja rubicundula var. rubicundula*	State ranked - S2, CNPS 1B.2	Serpentine chaparral, cismontane woodland, meadows and seeps, and valley and foothill grasslands.	Mapped within Morgan Hill Quad.	**None**. No suitable habitat occurs on or around the site.
Coyote ceanothus	*Ceanothys ferrisiae*	Federally endangered, CNPS 1B.1	Serpentine chaparral, valley, and foothill grasslands.	Three records, the closest less than a mile away on serpentine.	**None.** No suitable habitat occurs on or around the site.
Dwarf soaproot	*Chlorogalum pomeridianum var. minus*	CNPS 1B.2	Serpentine chaparral, valley, and foothill grasslands.	Mapped within Morgan Hill Quad.	**None.** No suitable habitat occurs on or around the site.
Mt. Hamilton fountain thistle	*Cirsium fontinale var. campylon*	State ranked - S2, CNPS 1B.2	Serpentinite seeps in chaparral, cismontane woodland, and valley and foothill grassland.	Seven records, the closest approximately 2.25 miles from the site.	**None.** No suitable habitat occurs on or around the site.
San Franciso collinsia	*Collinsia multicolor*	State ranked - S2, CNPS 1B.2	Northern Coastal Scrub, Closed-cone Pine Forest	One population on the shore of Anderson Reservoir.	**None**. No suitable habitat occurs on or around the site.
Santa Clara Valley dudleya	*Dudleya abramsii ssp. setchellii*	State ranked - S2, CNPS 1B.1	Valley Grassland, Foothill Woodland	Multiple populations in the area, the closest less than a half mile from the site.	**None.** No suitable habitat occurs on or around the site. Requires serpentine soils.

Fragrant fritillary	*Fritillaria liliacea*	State ranked - S2, CNPS 1B.2	Serpentine chaparral, valley, and foothill grasslands.	One population near shore of Anderson Reservoir.	**None**. No suitable habitat occurs on or around the site.
Smooth lessingia	*Lessingia micradenia var. glabrata*	State ranked - S2, CNPS 1B.2	Serpentine, often roadsides. Chaparral, Cismontane woodland, and valley and foothill grassland.	Multiple populations in the area, the closest is less than a half mile from the site.	**None.** No suitable habitat occurs on or around the site. Requires serpentine soils.
Arcuate bush-mallow	*Malacothamnus arcuatus*	State ranked - S2, CNPS 1B.2	Coastal Sage Scrub, Foothill Woodland, Chaparral	Two occurences. the closest about two miles from the site.	**None**. No suitable habitat occurs on or around the site.
Hall's Bush Mallow	*Malacothamnus hallii*	CNPS 1B.2	Coastal Sage Scrub, Foothill Woodland, Chaparral	Two occurences near Anderson Reservoir.	**None**. No suitable habitat occurs on or around the site.
Woodland wollythreads	*Monolopia gracilens*	State ranked - S3, CNPS 1B.2	Sometimes serpentine soils in Mixed Evergreen Forest, Redwood Forest, Chaparral.	One occurrence near Anderson Reservoir	**None.** No suitable habitat occurs on or around the site.
Metcalf Canyon jewelflower	*Streptanthus albidus ssp. albidus*	State Endangered, CNPS 1B.1	Serpentine chaparral, valley, and foothill grasslands.	Mapped in Quad.	**None.** No suitable habitat occurs on or around the site.
Most beautiful jewelflower	*Streptanthus albidus ssp. peramoenus*	State ranked - S2, CNPS 1B.2	Serpentine chaparral, valley, and foothill grasslands.	Multiple occurences, closest less than half mile from site.	**None.** No suitable habitat occurs on or around the site.

Table 3. Special-Status Wildlife Species Known to Occur in the Vicinity of 18545-18565 Monterey Road

Common Name	Scientific Name	Status	Habitat type	Occurrence information	Probability of occurring on site
California tiger salamander	*Ambystoma californiense*	Federally Threatened, State Threatened	Seasonal wetlands and ponds and adjacent grasslands.	Many occurrences in the greater area. Four within the 3-mile radius presumed extant, closest about 2.5 miles away.	**None.** There is no known population with the capacity to colonize the site, and no known CTS on or adjacent to the site.
California red-legged frog	*Rana draytonii*	Federally threatened, State ranked S2S3	Wet areas. Permanent or seasonal, such as ponds, streams, and marshes.	Three occurrences near edge of 3-mile radius.	**None.** There is no known population with the capacity to colonize the site, and no known CRLF on or adjacent to the site.
Western pond turtle	*Emys marmorata*	California Species of Concern	A variety of habitats adjacent to permanent or nearly permanent water.	Three occurrences, including at Anderson Reservoir, Chesbro Reservoir, and Coyote-Evergreen Canal.	**None**. There is no known population with the capacity to colonize the site, and no known WPT on or adjacent to the site.
Coast horned lizard	*Phrynosoma blainvilli*	California Species of Concern	Grasslands, scrublands, oak woodlands. Often found in dry riverbeds	One historic occurrence in "Vicinity of Morgan Hill"	**None.** There is a single local record that dates to 1894.
White tailed kite	*Elanus leucarus*	California Protected	Open grasslands and agricultural areas throughout California	Two occurrences along Coyote Creek.	**Likely**. This species is known to occur throughout the region and onsite trees may represent nesting sites. A preconstruction bird survey should be conducted.
Burrowing owl	*Athene cunicularia*	State ranked - S3	Grasslands, rangelands and other open dry areas.	Multiple occurrences in area, but those within 1.5 mile of site are "possibly extirpated."	**Low**. A preconstruction bird survey should be conducted.

Swainson's Hawk	*Buteo swainsonii*	California Threatened	Found in open (primarily agricultural areas) with low crops, and grasslands. Nests in trees.	None recorded within 3-mile radius. Nesting pair has been reported in Coyote Valley.	**Low**. A preconstruction bird survey should be conducted.
Tricolored blackbird	*Agelaius tricolor*	California Species of Concern	Colonial nesting species associated with fresh-water emergent marsh.	None recorded within 3-mile radius	**Low**. Potential for nesting at Butterfield Retention Basin on adjacent property. A preconstruction bird survey should be conducted.
American badger	*Taxidea taxus*	State ranked - S3	Open grasslands, fields, and pastures.	Two occurrences recorded. The closest occurrence is about one mile away.	**None.** No connectivity to existing habitat. Site is not suitable for burrows.
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	State ranked - S2S3	Oak woodlands and chaparral.	Three occurrences at Coyote Creek, nearest about 2 miles away.	**None**. No suitable habitat occurs on or around the site.
Bay checkerspot butterfly	*Euphydryas editha bayensis*	State ranked - S1	Serpentine soils. Host plants are *Plantago erecta* and *Castilleja densiflora* or *C. exserta*	Two occurrence, including one about half mile from site.	**None**. No suitable habitat occurs on or around the site.
Opler's longhorn moth	*Adela oplerella*	State ranked – S2	Serpentine soils, grasslands.	Two occurrences, nearest about half mile away.	**None**. No suitable habitat occurs on or around the site.
Crotch bumble bee	*Bombus crotchii*	none	Inhabits open grassland and scrub habitats. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. Colonial nests in underground cavities	No known records within 3 miles	**None.** Site conditions are not suitable for nest colonies.
Western bumble bee	*Bombus occidentalis*	none	Found throughout in the eastern part of the state in the Sierra-Cascade Range from near Yosemite to Oregon and west along the	One historic occurrence in "Vicinity of Morgan Hill"	**None**. Site conditions are not suitable for nest colonies. There is a single local record that

	northern tier of counties into Humboldt County. Colonial nests in underground cavities. Colonial nests in underground cavities	dates to 1940.

Attachments

Attachment 1. Proposed Project Development

Attachment 2. Site Photos

Attachment 3. NRCS Soils Report

Attachment 4. Petition to State of California for Listing of Bumble Bees

Attachment 5. Conditions of Santa Clara Valley Habitat Plan

Attachment 1. Proposed Project Development



City Ventures

THE GATES - CONCEPTUAL ILLUSTRATIVE PLAN

Morgan Hill, CA

0 15' 30' 60'

Scale: 1" = 30'-0"

03.09.22

L-1

C2 Collaborative

Attachment 2. Site Photos



Photo 1. Seasonal wetland ditches exiting property



Photo 2. Central wetland ditch



Photo 3. Beginning of central wetland ditch



Photo 4. Beginning of northeastern wetland ditch



Photo 5. Depressional wetland in northern portion of site



Photo 6. Depressional wetland in center of site



Photo 7. Northern half of property



Photo 8. Detention basin



Photo 9. Depressional wetland at southern end of property



Photo 10. Standpipe in detention basin



Photo 11. Ornamental woodland along southern property edges and detention basin



Photo 12. Ornamental woodland along eastern edge of proptery



Photo 13. Ornamental woodland along western edge of property



Photo 14. Ornamental woodland along edge of detention basin

Attachment 3. NRCS Soils Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Eastern Santa Clara Area, California



April 7, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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SdA—San Ysidro loam, 0 to 2 percent slopes, MLRA 14.....13
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,660 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Santa Clara Area, California
Survey Area Data: Version 17, Sep 9, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 8, 2021—Jun 15, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
SdA	San Ysidro loam, 0 to 2 percent slopes, MLRA 14	4.5	100.0%
Totals for Area of Interest		**4.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Eastern Santa Clara Area, California

SdA—San Ysidro loam, 0 to 2 percent slopes, MLRA 14

Map Unit Setting

National map unit symbol: 2tyys
Elevation: 70 to 1,990 feet
Mean annual precipitation: 13 to 22 inches
Mean annual air temperature: 59 to 61 degrees F
Frost-free period: 300 to 360 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

San ysidro and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of San Ysidro

Setting

Landform: Valley floors, alluvial fans, terraces
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sedimentary rock

Typical profile

A - 0 to 23 inches: loam
B1 - 23 to 38 inches: clay loam
Bt2 - 38 to 64 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 16 to 24 inches to abrupt textural change
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R014XE029CA - LOAMY CLAYPAN
Hydric soil rating: No

Minor Components

Arbuckle

Percent of map unit: 6 percent

Hydric soil rating: No

Solano

Percent of map unit: 2 percent
Hydric soil rating: No

Pleasanton, loam

Percent of map unit: 2 percent
Hydric soil rating: No

Rincon

Percent of map unit: 2 percent
Hydric soil rating: No

Palexeralfs

Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

Pescadero

Percent of map unit: 1 percent
Landform: Basin floors
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Cropley, clay

Percent of map unit: 1 percent
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Attachment 4. Petition to State of California to List Bumble Bees

FGC - 670.1 (3/94)

A PETITION TO THE STATE OF CALIFORNIA
FISH AND GAME COMMISSION

For action pursuant to Section 670.1, Title 14, California Code of Regulations (CCR) and Sections 2072 and 2073 of the Fish and Game Code relating to listing and delisting endangered and threatened species of plants and animals.

I. SPECIES BEING PETITIONED:

1. Common Name: Crotch bumble bee
   Scientific Name: *Bombus crotchii*
2. Common Name: Franklin's bumble bee
   Scientific Name: *Bombus franklini*
3. Common Name: Suckley cuckoo bumble bee
   Scientific Name: *Bombus suckleyi*
4. Common Name: Western bumble bee
   Scientific Name: *Bombus occidentalis occidentalis*

II. RECOMMENDED ACTION:

1. Common Name: Crotch bumble bee As Endangered X
   Scientific Name: *Bombus crotchii*
2. Common Name: Franklin's bumble bee As Endangered X
   Scientific Name: *Bombus franklini*
3. Common Name: Suckley cuckoo bumble bee As Endangered X
   Scientific Name: *Bombus suckleyi*
4. Common Name: Western bumble bee As Endangered X
   Scientific Name: *Bombus occidentalis occidentalis*

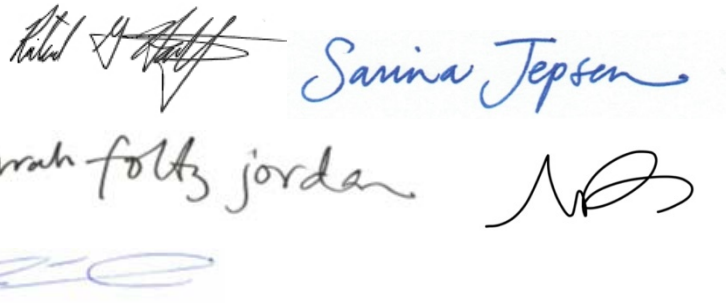
III. AUTHOR OF PETITION:

Name: The Xerces Society, including: Rich Hatfield, Sarina Jepsen, Sarah Foltz Jordan, Michele Blackburn, Aimée Code

Address: 628 NE Broadway, Portland, OR 97232

Phone Number: 503-232-6639

I hereby certify that, to the best of my knowledge, all statements made in this petition are true and complete.

Signature: 

Date: 16 October 2018

FGC - 670.1 (3/94)

A PETITION TO THE STATE OF CALIFORNIA
FISH AND GAME COMMISSION TO LIST

The Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act



Bombus crotchii, by Stephanie McKnight, the Xerces Society (top left); *Bombus franklini*, by Pete Schroeder (top right); *Bombus occidentalis occidentalis*, by Rich Hatfield, the Xerces Society (bottom left); *Bombus suckleyi*, by Hadel Go/www.discoverlife.org (bottom right).

Submitted by
The Xerces Society for Invertebrate Conservation, Defenders of Wildlife, Center for Food Safety

October 2018

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I. EXECUTIVE SUMMARY

The Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) are endangered with extinction throughout their ranges, including in California. Recent research has shown a significant reduction in both the range and relative abundance of these species, and where they still persist, they are far less common than they were historically. **The Crotch bumble bee (*Bombus crotchii*)** was historically common in the southern two-thirds of California, but now appears to be absent from most of it, especially in the center of its historic range (Hatfield et al. 2014; Richardson et al. 2014); analyses suggests sharp declines in both relative abundance (98% decline) and persistence (80% decline) over the last ten years. **Franklin's bumble bee (*Bombus franklini*)** is in imminent danger of extinction and notably has the most limited geographic distribution of any bumble bee in North America and possibly the world (Williams 1998). Extensive surveys since 1998 have demonstrated that there has been a precipitous decline in the number of individuals and localities in the past several decades; this species has not been seen in California since 1998, and has not been seen anywhere since 2006. The **western bumble bee (*Bombus occidentalis occidentalis*)** has recently undergone a dramatic decline in abundance and distribution, and is no longer present across much of its historic range. Declines suggest it has been lost from 53% of its historic range and has experienced an 84% decline in relative abundance (Hatfield et al., unpublished data); in

California, *B. o. occidentalis* populations are currently largely restricted to high elevation sites in the Sierra Nevada (Xerces Society 2012). The **Suckley cuckoo bumble bee (*Bombus suckleyi*),** relies upon western bumble bees to complete its life cycle, and thus is uniquely susceptible to extinction (Suhonen et al. 2015).

Bumble bees are among the most iconic and well understood group of native pollinators in North America. They are generalist pollinators that play a valuable role in the reproduction of a wide variety of plants, including California specialty crops such as tomato, squash, melon, and pepper, and numerous wildflowers. Pollinators are critical components of our environment and essential to our food security. Insects – and primarily bees – provide the indispensable service of pollination to more than 85% of flowering plants (Ollerton et al. 2011), contributing to 35% of global food production (Klein et al. 2007). Many vitamins and other nutrients essential to human nutrition are found primarily in plants that require insect pollination (Eilers et al. 2011); as such, the loss of pollinators may pose challenges to human nutrition.

Each of the following factors pose a substantial threat to the survival of the four species of bumble bees included in this petition: present or threatened modification or destruction of its habitat; overexploitation; competition; disease; and other natural events and human-related activities, including pesticide use, population dynamics and structure, global climate change, and for the Suckley cuckoo bumble bee, loss of its host species.

While each of these four bumble bee species have been placed on California Department of Fish and Wildlife's Special Animal List, and their extinction risk has been recognized by the International Union for the Conservation of Nature (IUCN) and the global network of bumble bee researchers engaged in IUCN's Bumblebee Specialist Group, these species receive no formal protection. This petition presents information that each of these four bumble bee species is experiencing dramatic declines and protections under the California Endangered Species Act are necessary to conserve their populations and protect and restore their habitat throughout their ranges in California.

II. POPULATION TRENDS, ABUNDANCE, RANGE, AND DISTRIBUTION

Current Conservation Status

The conservation status and extinction risk of the petitioned species has been evaluated by the International Union for the Conservation of Nature (IUCN) Bumblebee Specialist Group, a global network of bumble bee researchers dedicated to the conservation of bumble bees, and published on the IUCN's Red List of Threatened Species (Hatfield et al. 2015a, 2015b, 2015c; Kevan 2008).The IUCN Bumblebee Specialist Group utilized methods published in the 2001 IUCN Red List Categories and Criteria version 3.1, a standard, global method to evaluate the conservation status of plant and animal species worldwide. Each species was assessed according

to the IUCN Red List criteria by multiple bumble bee experts, and the methods used in the assessments were peer-reviewed by additional bumble bee experts (see reviewers and assessors listed in Hatfield et al. 2015a, 2015b, 2015c), with the exception of the Red List profile for *B. franklini*, which was added to the Red List in 2008, before the IUCN Bumblebee Specialist Group existed.

The IUCN Bumble Bee Specialist Group (BBSG) measured changes in each species' range and relative abundance between historic (1805-2001) and recent (2002-2012) time periods for *B. crotchii*, *B. occidentalis*, and *B. suckleyi* (Hatfield et al. 2015a; 2015b; 2015c). *Bombus franklini* was listed on the IUCN Red List previously (Kevan 2008).

A database of more than 200,000 electronic specimen records of North American bumble bee species was assembled from academic, research and private collections (Richardson 2014) and analyzed to evaluate the change in each species' range between the recent and historic time periods. Once these analyses were completed, quantitative thresholds for extinction risk were used (IUCN 2012) to determine the extinction risk of each bumble bee species (IUCN Red List 2016).

The petitioned species are listed on the IUCN Red List as: Critically Endangered (*Bombus franklini* and *Bombus suckleyi*) and Endangered (*Bombus crotchii*) (Table 1) (Kevan 2008; Hatfield et al. 2015a; 2015c). An IUCN Red List category has not yet been formally assigned for the southern subspecies of the western bumble bee (*B. occidentalis occidentalis*), but the full species (*B. occidentalis*) is listed as Vulnerable to extinction on the IUCN Red List (Hatfield et al. 2015b), and a more recent analysis of changes in range and relative abundance of *B. o. occidentalis* suggests that this subspecies would meet the criteria of Endangered on the IUCN Red List (Hatfield et al. 2018a, unpublished data).

Table 1: Conservation status of each of the four petitioned bumble bee species. *The subspecies *Bombus occidentalis occidentalis* has not been evaluated by CNDDB; the S1 rank is for the entire species *Bombus occidentalis*. **The subspecies *Bombus occidentalis occidentalis* is not on the IUCN Red List (since the taxonomic change came after the assessments were done), but the IUCN's Bumblebee Specialist Group range and relative abundance decline estimates indicate that it would meet the IUCN Red List's Endangered criteria. The species *Bombus occidentalis* has been listed as Vulnerable on the IUCN Red List.

Species	CNDDB State Rank	NatureServe global (G) and national (T) ranks	ESA Status	IUCN Red List Status
Crotch bumble bee (*Bombus crotchii*)	S1S2	G3G4	None	Endangered
Franklin's bumble bee (*Bombus franklini*)	S1	G1	None (SSA phase)	Critically Endangered
Western bumble bee, southern subspecies (*Bombus occidentalis occidentalis*)	S1*	G4T1T3	None (parent species SSA phase)	Subspecies not evaluated, but meets the criteria of Endangered**
Suckley cuckoo bumble bee (*Bombus suckleyi*)	S1	G1G3	None	Critically Endangered

Changes in Range, Distribution, and Relative Abundance

In Table 2, we summarize the changes in range (extent of occurrence, or EOO, and persistence) and relative abundance for each of the petitioned species (Kevan 2008; Hatfield et al. 2015a; 2015c; IUCN Red List 2016; Hatfield 2018a and 2018b, unpublished data).

Table 2: Summary of changes in species' ranges, persistence, and relative abundance between recent (2002-2012) and historic (pre-2002) time periods.

Species	Historic Distribution	Range Decline: Extent of Occurrence	Range Decline: Persistence	Relative Abundance Decline	Average Decline	Reference
Crotch bumble bee (*Bombus crotchii*)	**United States** (CA) **Mexico** (B.C.)	25%	79%	98%	67%	Hatfield et al. 2015a
Franklin's bumble bee (*Bombus franklini*)	**United States** (CA, OR)	44%	67%	85%	65%	Hatfield 2018b, unpublished data
Western bumble bee, southern subspecies (*Bombus occidentalis occidentalis*)	**United States** (AZ, CA, CO, ID, MT, NE, NV, NM, OR, SD, UT, WA, WY) **Canada** (AB, BC, SK)	53%	33%	84%	57%	Hatfield 2018a, unpublished data
Suckley cuckoo bumble bee (*Bombus suckleyi*)	**United States** (AK, CA, CO, ID, MT, NY, ND, OR, SD, UT, WA, WY) **Canada** (AB, BC, MB, NL, NT, NS, ON, QC, SK, YT)	57%	84%	90%	77%	Hatfield et al. 2015c

Each of the species included in this petition have experienced dramatic declines in their ranges, relative abundance, and persistence, and these sharp decreases have likely been driven by population declines. The life history of *Bombus suckleyi*, a cuckoo bumble bee, makes it uniquely susceptible to extinction (Suhonen et al. 2015). Below we provide more information on the distribution and population status of each species in this petition.

The Crotch bumble bee (Bombus crotchii)

Distribution

Bombus crotchii has a limited distribution in southwestern North America. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (Williams et al. 2014). It also occurs in Mexico (Baja California and Baja California Sur) (Williams et al. 2014) and has been documented in southwest Nevada, near the California border.

Population Status

This species was historically common throughout much of the southern two-thirds of California, but now appears to be absent from most of it, especially in the center of its historic range (Hatfield et al. 2014, Richardson et al. 2014). In the Central Valley there has been extensive agricultural intensification and the southern part of its range is experiencing rapid urbanization.

Average decline for this species was calculated by averaging the changes in relative abundance and two measures of range: persistence and Extent of Occurrence (EOO) between a recent time period (2002-2012) and a historic (1805-2001) time period (for an explanation of methods, see below). This analysis yielded the following results:

- Current range size relative to historic range (EOO): 74.67% (25.33% decline)
- Persistence in current range relative to historic occupancy: 20.48% (79.52% decline)
- Current relative abundance compared to historic relative abundance: 2.32% (97.68% decline)
- **Average decline: 67.51%**

This analysis suggests sharp declines in both relative abundance and persistence over the last ten years.

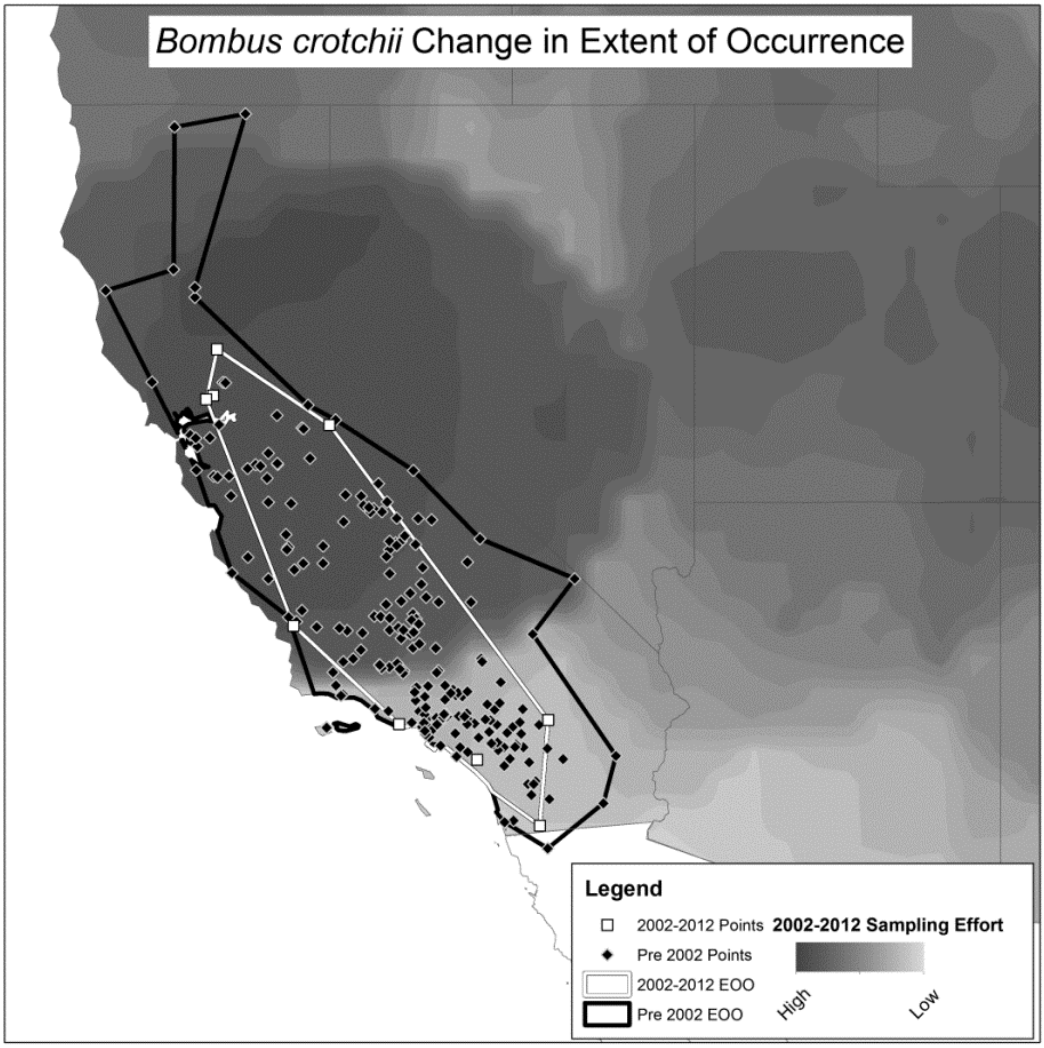


Figure 1: Recent and historical range map for *Bombus crotchii* displayed with a map of sampling effort across its range.

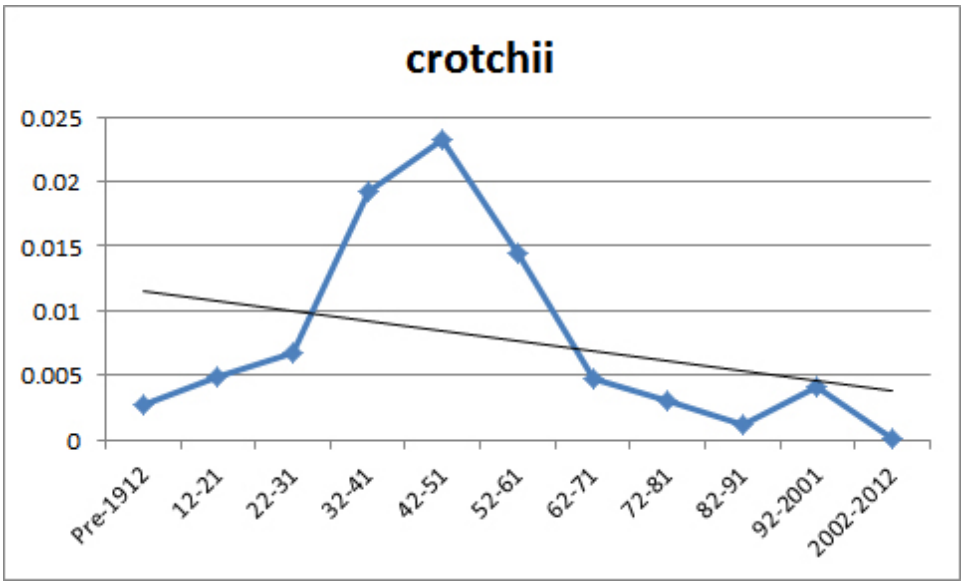


Figure 2: Relative abundance of *Bombus crotchii* by 10-year periods.

Franklin's bumble bee (Bombus franklini)

Distribution

Bombus franklini has the most limited geographic distribution of any bumble bee in North America and possibly the world (Williams 1998). *B. franklini* is known only from southern Oregon and northern California between the Coast and Sierra-Cascade Ranges. Stephen (1957) recorded it from the Umpqua and Rogue River Valleys of Oregon. Thorp et al. (1983) also recorded it from northern California and suggested its restriction to the Klamath Mountain region of southern Oregon and northern California. Its entire distribution, including recent range extensions (Thorp 1999; 2001; 2004) can be covered by an oval of about 190 miles north to south and 70 miles east to west between 122° to 124° west longitude and 40° 58' to 43° 30' north latitude. It is known from Siskiyou and Trinity counties in California. Elevations of localities where it has been found range from 540 feet (162 m) in the north to above 7,800 feet (2,340 m) in the south of its historic range. Although the number of populations that existed prior to 1998 is unknown, there are several historic records for this species, both published and in museums, including two in 1925 (Gold Hill and Roseburg, OR), one in 1930 (Roseburg, OR), two in 1950 (Gold Hill and Medford, OR), two in 1958 (Ashland, OR), two in 1968 (Mt. Ashland and near Copper, OR), one in 1980 (Ashland, OR), two in 1988 (Ashland and Merlin, OR), two in 1989 (Hilt and Yreka, CA), four in 1990 (Ashland, Ruch, Central Point, and Gold Hill, OR), one in 1992 (Ashland, OR), two in 1997 (Roxy Ann Peak near Medford and Ashland Pond in Ashland, OR), and four in 1998 (Roca Canyon in Ashland, Lost Creek Reservoir, and Grizzly Peak near Shale City, OR). Additional records with unknown dates and or localities are also available, including the 1917 type specimen whose locality (Nogales, AZ) has been determined to be erroneous.

Population Status

Evidence for the decline in this species is based on intensive and extensive surveys, primarily by R.W. Thorp (Thorp 1999, 2001, 2004, 2005a, b, 2008) from 1998 through 2017. Surveys for the Bureau of Land Management were also conducted in 2005 (Code and Haney 2006). R.W. Thorp surveyed from nine to seventeen historic sites (average 13.8 sites) per year from 1998 to 2009; reports of surveys completed since 2009 are not available, although it has been confirmed that no *B. franklini* have been found in surveys that have occurred since 2009 (Thorp 2010-2017, pers. comm. with S. Jepsen). Dr. Thorp also surveyed from six to nineteen additional sites (average 12.8 sites) each year, some of which were visited more than once per year and some of which were visited in multiple years (Table 3).

Bombus franklini has not been seen in California since surveys by R.W. Thorp for the species at Hilt in Siskiyou County in 1998 documented two individuals (Table 3). Between 1998 and 2005, the number of sightings of *B. franklini* throughout its range declined precipitously from ninety-four individuals in 1998 to twenty in 1999, nine in 2000 and one in 2001. In Oregon, twenty were found in 2002, although only three were sighted in 2003, all at a single locality at Mt. Ashland in southern Oregon. None were found in 2004 and 2005 in Oregon or California. A single worker of *B. franklini* was sighted in 2006 at Mt. Ashland in Oregon, which is the same locality where *B. franklini* were found in 2003 (Table 3). None have been found from 2007-2017. R.W. Thorp's unpublished surveys have revealed that, since 1998, the populations have decreased to the point of being not seen at all in 2004 or 2005, with only one individual found in 2006. Because extensive surveys of the area within which *B. franklini* exists have, as of 2006, uncovered only one individual, but similar surveys in the first three years (1998-2000) uncovered individuals at many historic and seven new sites, it can be concluded that the extent of population is decreasing severely. Though further investigation would be required to determine the exact number of extant *B. franklini*, based on their limited range, it can be assumed that their populations have decreased to dangerously low levels.

Table 3: Historic and new* localities surveyed for *Bombus franklini* and numbers of *B. franklini* observed from 1998 through 2007 (Thorp 2008). Bolded entries denote that *B. franklini* was observed. Surveys were conducted by Dr. Thorp during 2008 and 2009, but no *B. franklini* were encountered.

Site	ST		# times visited / # *Bombus franklini* found									
		Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
		CO										
Sutherlin, W of	OR	Douglas	**1/1***	1/0	1/0	2/0	1/0		2/0	3/0		1/0
Ashland	OR	Jackson			1/0	2/0	**3/1**		4/0	7/0	5/0	2/0
Ashland, ENE (3)	OR	Jackson	1/0	1/0	1/0	2/0	5/0	1/0			1/0	1/0
Buncom, E of	OR	Jackson		**1/1***	3/0	1/0	1/0					
Gold Hill, E of	OR	Jackson	**4/44***	2/0	**7/5**	7/0	3/0	4/0	2/0	4/0	2/0	2/0
Grizzly Peak	OR	Jackson	2/0	2/0	1/0	2/0	2/0	2/0	2/0	3/0	1/0	2/0
Jackson Campground	OR	Jackson	**2/2***	2/0	1/0		1/0			1/0		
Kenney Meadows	OR	Jackson	**2/3***	2/0	2/0	2/0	1/0	1/0		1/0		
Lost Creek Reservoir	OR	Jackson		1/0		1/0			1/0	1/0		
Medford	OR	Jackson			3/0	3/0		1/0	1/0			
Mt. Ashland (2)	OR	Jackson	**3/37**	**6/19**	**7/2**	**5/1**	**10/19**	**9/3**	13/0	11/0	**8/1**	7/0
Phoenix, E of	OR	Jackson			1/0	2/0						
Ruch	OR	Jackson	**3/3**	2/0	**2/1**	1/0	2/0		2/0			
Ruch, S of (2)	OR	Jackson	1/0	2/0			1/0	2/0	2/0	1/0		
Ruch, SSE of	OR	Jackson		2/0	**3/1***	2/0	1/0	2/0		1/0		
Union Creek	OR	Jackson		1/0								
Selma, S of	OR	Josephine	**1/2***	1/0	1/0							
Wonder, W of	OR	Josephine			1/0							
Mt. Shasta	CA	Siskiyou	1/0	1/0	1/0		1/0			1/0	2/0	1/0
Hilt	CA	Siskiyou	**2/2**	3/0	3/0	1/0	2/0	1/0	1/0	2/0	2/0	1/0
Montague	CA	Siskiyou		1/0					1/0		1/0	
Total *B. franklini* seen			94	20	9	1	20	3	0	0	1	0
New sites for *franklini*			5	1	1	0	0	0	0	0	0	0
B. franklini site visits			22	32	41	33	36	20	31	36	22	17
Other sites visited			19	23	14	7	6	8	9	19	14	2

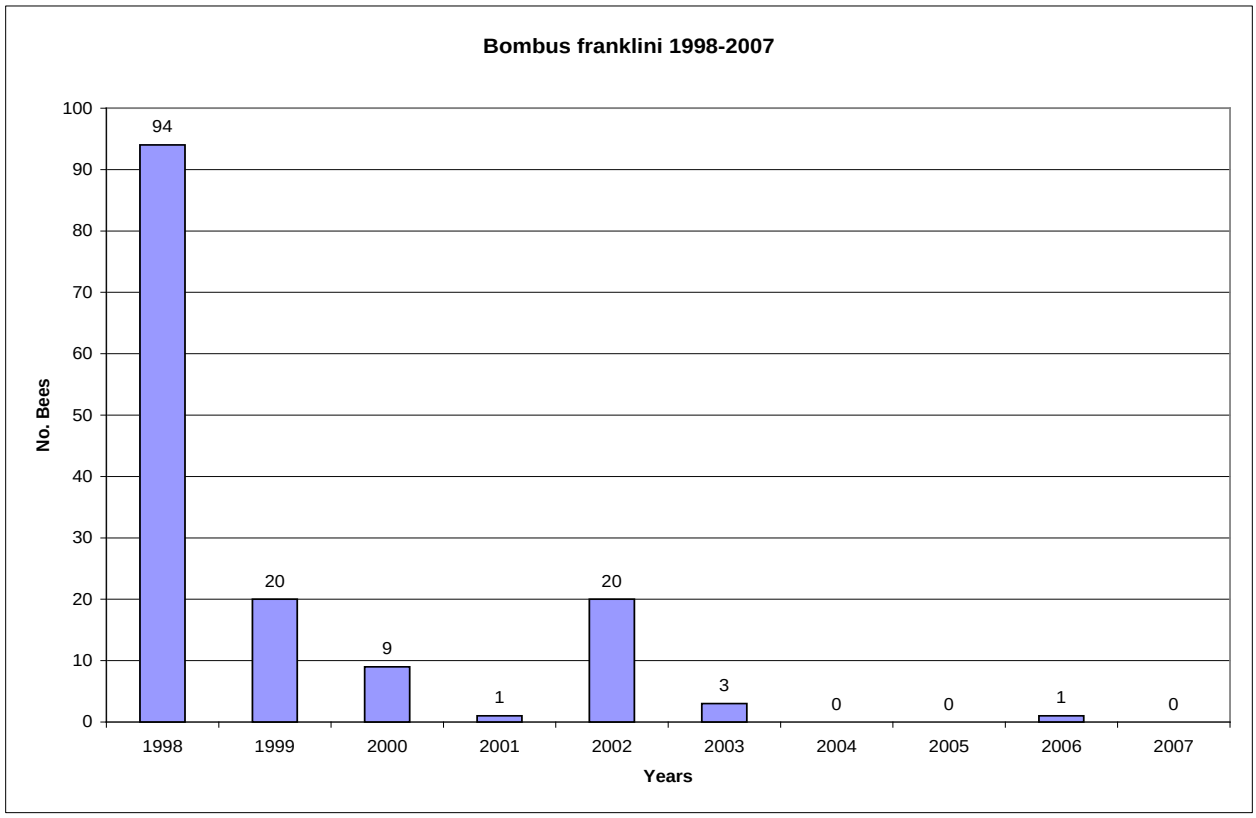


Figure 3: Number of *Bombus franklini* observed in surveys from 1998-2007 (Thorp 2008). Surveys were also conducted by Dr. Thorp from 2008-2017, but no *B. franklini* were found.

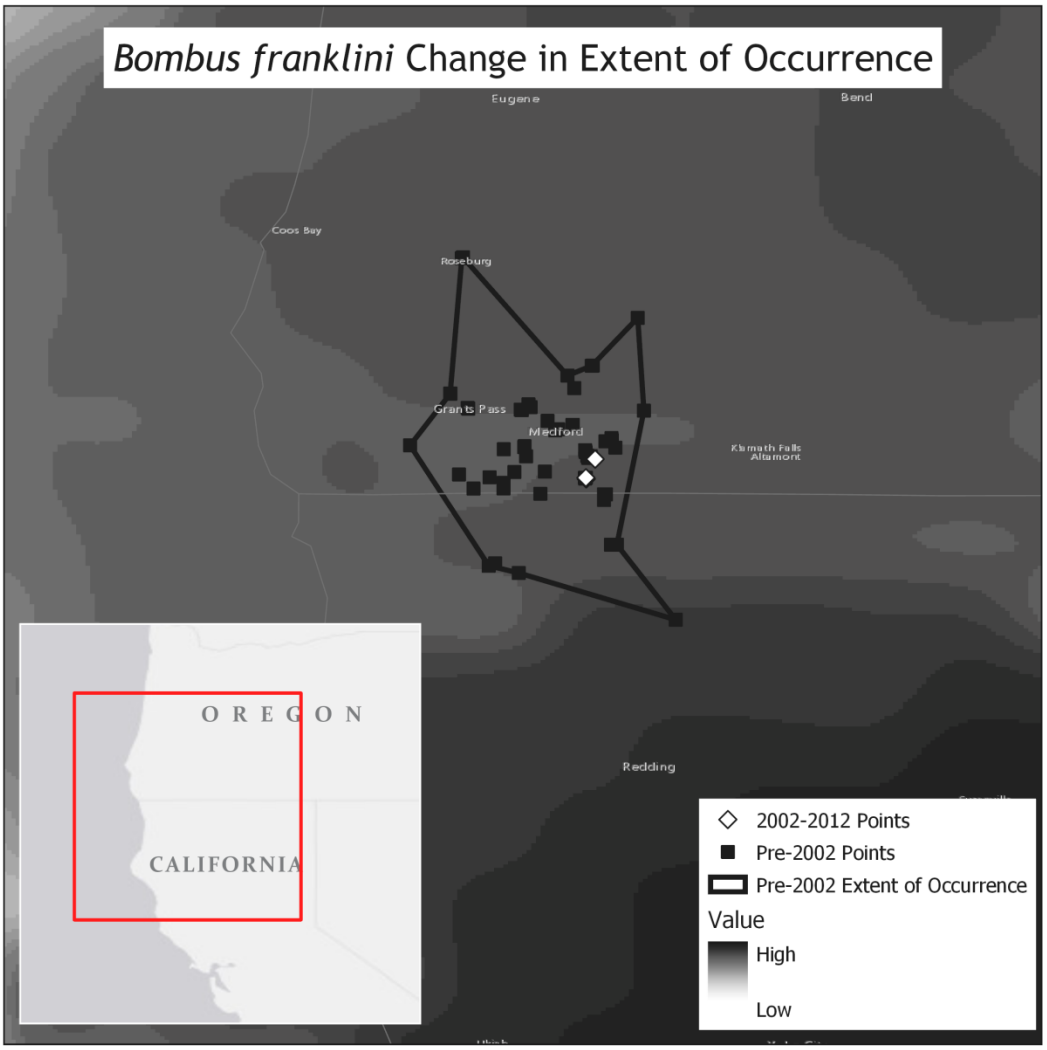


Figure 4: Current and historical range map for *Bombus franklini*.

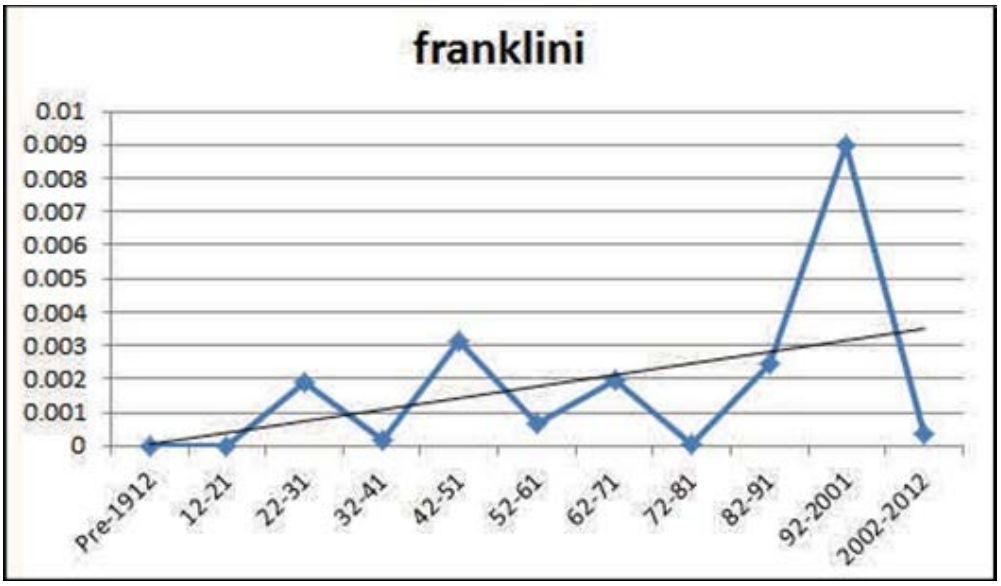


Figure 5: Relative abundance of *Bombus franklini* by 10-year periods. Note that a targeted survey effort for *B. franklini* began in 1998, probably explaining the spike in this species' relative abundance in the *Bombus* specimen database during the decade from 1992-2001.

The Western bumble bee (Bombus occidentalis occidentalis)

Bombus occidentalis consists of two subspecies: *B. occidentalis mckayi*, which occurs in Alaska, Yukon Territory, Northwest Territories, northern British Columbia, and northern Alberta, and *B. occidentalis occidentalis*, which occurs from southern British Columbia, southern Alberta, and southwestern Saskatchewan south to multiple western U.S. states (Sheffield et al. 2016). Existing evidence suggests that it is the southern subspecies, *B. occidentalis occidentalis*, which has undergone a dramatic range contraction and population decline, especially in the western part of its range. The authors of this petition are not aware of any evidence suggesting that *B. occidentalis mckayi* has undergone any range reduction or population decline. The IUCN Bumblebee Specialist Group recently completed analyses of changes in range, persistence, and relative abundance of both *B. occidentalis* (Hatfield et al. 2015b) and *B. occidentalis occidentalis* (Hatfield 2018 unpublished data) between recent and historic time periods.

Distribution

Bombus occidentalis occidentalis was historically broadly distributed across the west coast of North America from southern British Columbia to central California, east through Alberta and western South Dakota, and south to Arizona and New Mexico (Williams et al. 2014; Sheffield et al. 2016). In California, it has been documented in Alameda, Alpine, Butte, Calaveras, Contra Costa, Del Norte, El Dorado, Fresno, Humboldt, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sen Benito, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Tehama, Trinity, Tulare, Yolo, and Yuba counties (Bumble Bee Watch 2017; Richardson 2017; Rickman 2017).

Population Status

Bombus occidentalis occidentalis was once very common in the western United States but has recently undergone a dramatic decline in abundance and distribution, and is no longer present across much of its historic range. A rangewide analysis including more than 73,000 records of eight bumble bee species suggests that the parent species, *B. occidentalis* has undergone a 28% range decline between recent (2007-2009) and historic (1900-1999) time periods (Cameron et al. 2011a). A separate analysis comparing the current (2002-2012) and historic (1805-2001) ranges of *B. occidentalis occidentalis* (using a database of more than 200,000 records of 43 species of North American bumble bees developed by Williams et al. 2014) suggests that the southern subspecies has been lost from 53% of its historic range, or EOO (Hatfield et al., unpublished data). The relative abundance of *B. o. occidentalis* has declined by 84% (Hatfield et al., unpublished data). Declines were found to be most significant at the edges of this species' range (Hatfield et al., unpublished data). In California, *B. o. occidentalis* populations are currently largely restricted to high elevation sites in the Sierra Nevada (Xerces Society 2012), though there have been a couple of observations of this species on the northern California coast (Xerces Society et al. 2017).

Average decline for this species was calculated by averaging the change in abundance, persistence, and EOO. This analysis yielded the following results (see also the graph of relative abundance and map of change in EOO over time below):

- Current EOO (range) relative to historic EOO: 47% (53% decline)
- Persistence in current range relative to historic occupancy: 57% (33% decline)
- Current relative abundance relative to historic values: 16% (84% decline)
- Average decline: 57%

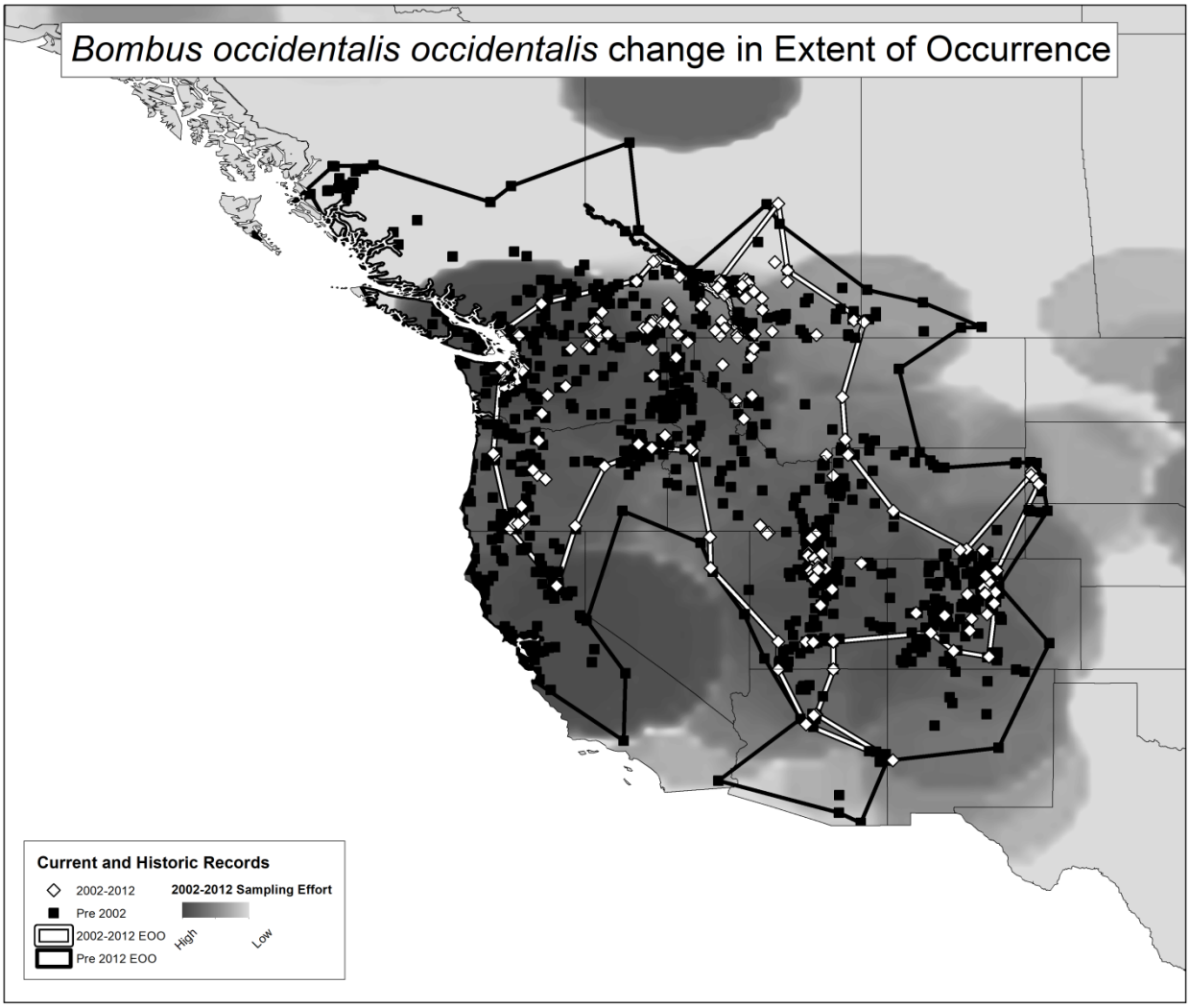


Figure 6: Current and historical range map for *Bombus occidentalis occidentalis*.

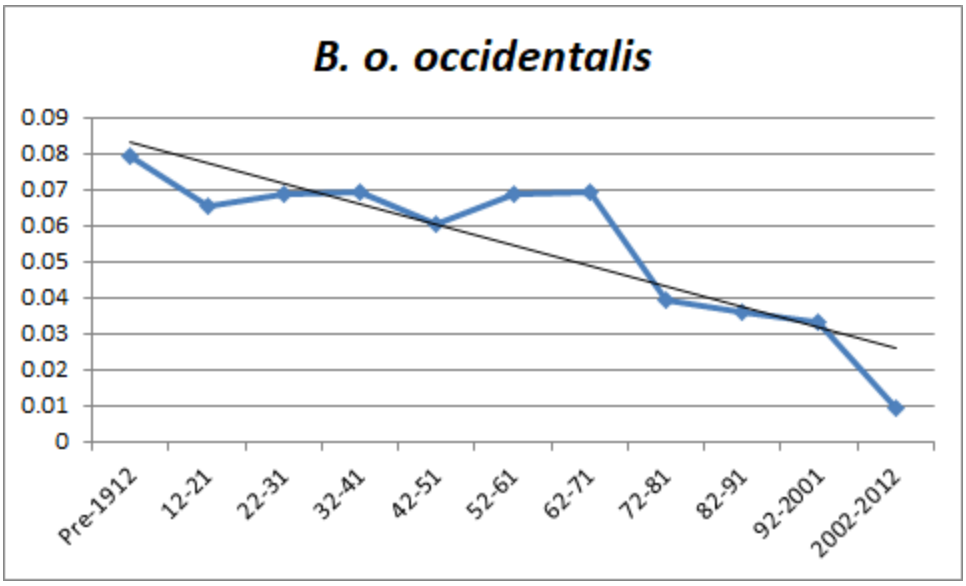


Figure 7: Relative abundance of *Bombus occidentalis occidentalis* by 10-year periods.

The Suckley cuckoo bumble bee (Bombus suckleyi)

Distribution

This species has a broad distribution centered in western North America and also including several scattered localities in the northeast. It occurs in the Mountain West from California and Colorado to Alaska, east to the Canadian Great Plains, with a disjunct subpopulation in Newfoundland (Williams et al. 2014). In California *Bombus suckleyi* has a very limited distribution, occurring only in the Klamath Mountain region in the northern part of the state.

Population Status

Bombus suckleyi has experienced dramatic population declines throughout its range and has declined by over 80%, according to criteria established by the IUCN (Hatfield et al. 2015c). The decade by decade relative abundance regression shows a gradual decline since the 1940s, and the relative abundance regression over just the past 50 years is highly significant (R-squared value of nearly 1; showing a continued steep decline). If we project the 50 year relative abundance regression into the future, it falls below the x-axis in the next 10 years. Notably, this species' declines are likely due – at least in part – to the rapid disappearance of its host, the **western bumble bee (*Bombus occidentalis occidentalis*)**, which has declined by 84% (Hatfield et al., unpublished data). Both the past decline in relative abundance (90.11% over the past 10 years) and predicted future decline in relative abundance (based on 50-year regression) indicate dramatic, rapid declines. Note that the range and persistence of this species have also declined, however, since some historic sites have not been re-sampled and since we only have records of this species in approximately six general localities for the current time period, we were not comfortable using those measures of decline.

Average decline for this species was calculated by averaging the change in abundance, persistence, and EOO. This analysis yielded the following results (see also the graph of relative abundance and map of change in EOO over time below):

- Current range size relative to historic range: 42.61% (57.39% decline)
- Persistence in current range relative to historic occupancy: 15.95% (84.05% decline)
- Current relative abundance relative to historic values: 9.89% (90.11% decline)
- Average decline: 77.18%

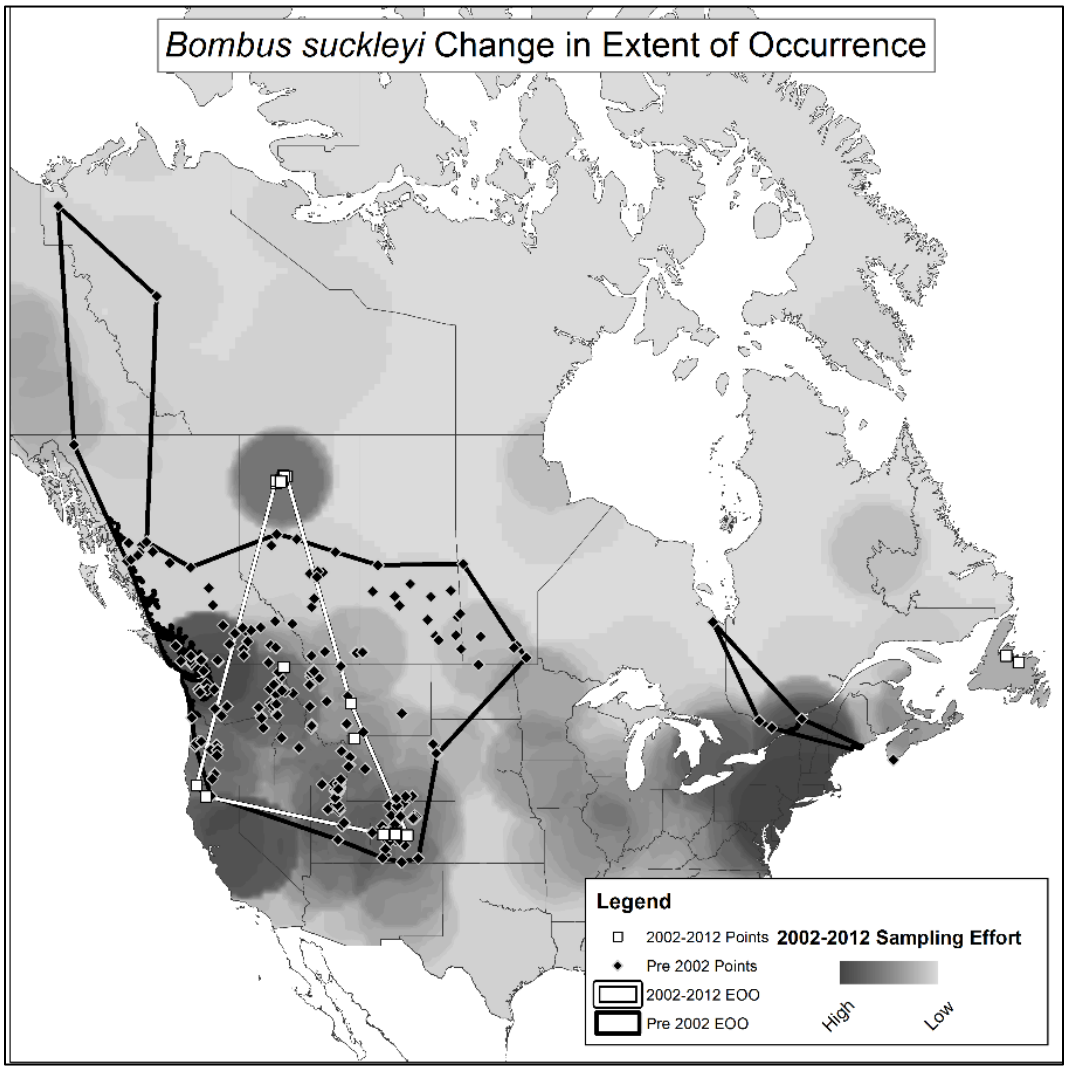


Figure 8: Current and historical range map for the Suckley cuckoo bumble bee (*Bombus suckleyi*).

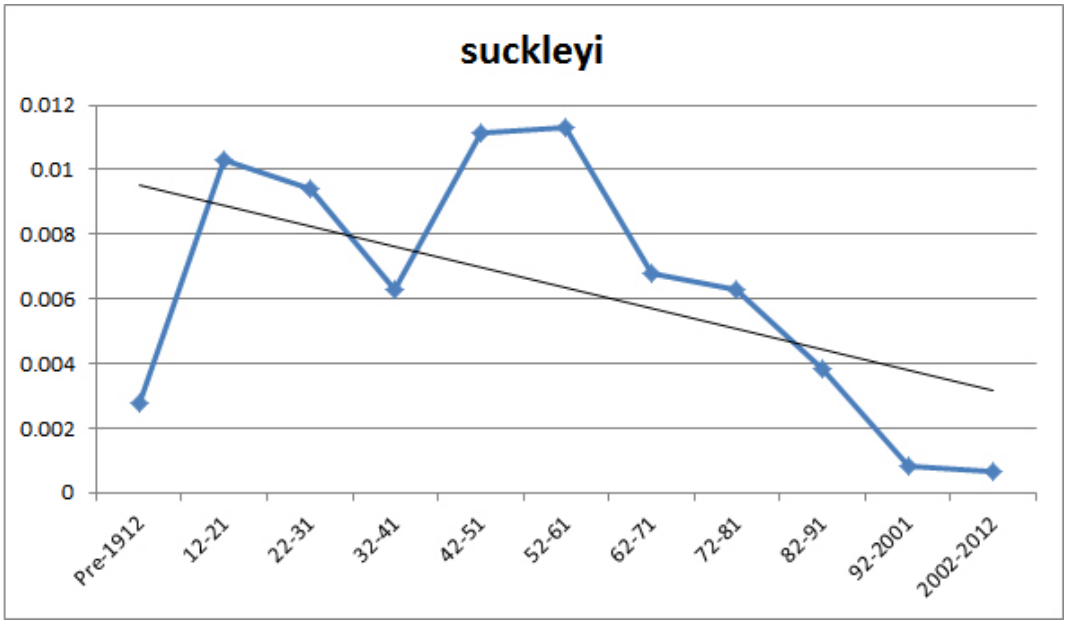


Figure 9: Relative abundance of the Suckley cuckoo bumble bee (*Bombus suckleyi*) by 10-year periods.

METHODS USED

Analyses

Hatfield et al. (2014) evaluated changes between recent and historic time periods in each species': overall Extent of Occurrence (EOO), persistence within 50km grid cells, and relative abundance. For both the EOO and persistence calculations, a database of >200,000 specimen records (Richardson et al. 2014) was divided into historical (1805 – 2001, N=128,572) and current (2002-2012, N=73,626) records (Hatfield et al. 2014, Hatfield et al 2018c).

Extent of Occurrence (EOO)

Since the historical database had significantly more records, and therefore could lead to an over estimate of range loss due to an increased chance of including more records near the edge of each species' range, Hatfield et al. (2014) rarefied the historic data set by randomly selecting 73,626 records from the historical time period to use in the EOO measurement. Using z-tests for differences in proportion, it was ensured that the relative abundance of each species in the subsampled historical data was not significantly different from the relative abundance of that species in the original database. To measure changes in each species' EOO, Hatfield et al. (2014) first used a k-nearest neighbors approach to create local convex hulls for each species in each time period (Getz et al. 2007). Generally, the "minimum spurious hole covering" rule proposed in Getz et al. (2007) was used. However, since the ranges of most North America bumble bees are large, "spurious holes" frequently included large expanses of inhospitable habitat for bumble bees (e.g., The Gulf of Alaska) (Hatfield et al. 2014). After the local convex hull polygons were created, the polygons were clipped to the North American continent to remove large patches of

unoccupied habitat (e.g., Great Lakes) (Hatfield et al. 2014). Using the areas calculated from these polygons, Hatfield et al. (2014) compared the current area to the historical area to determine change in home range size (see Figures 1, 4, 6, and 8).

Persistence

To determine species' persistence within their home range, Hatfield et al. (2014) divided the continent into 50 km x 50 km grid cells. Hatfield et al. (2014) used 50 km grid cells to be consistent with previous European and North American *Bombus* spp. analyses (Williams et al. 2007; Colla et al. 2012) and because the data in the historical database were georeferenced from specimen label locality descriptions, which are sometimes inaccurate at smaller spatial scales (Wieczorek et al. 2004). For each time period the number of grid cells occupied by each species was divided by the total number of grid cells occupied by all species (Hatfield et al. 2014). Then, the value from the current time period was divided by the value from the historic time period to detect changes in persistence over time. While the metric that Hatfield et al. (2014) report is not truly a measure of range size, it does provide a measure of each species' persistence within its home range.

Relative Abundance

To evaluate changes in the relative abundance (RA) of each species, Hatfield et al. (2014) divided the full database into historical (1805-2001) and current (2002-2012) time periods and calculated the RA of each species in each time period. Then, to estimate changes in RA, they divided the current RA by the historical RA. In addition to comparing the historical time period to the most recent decade, Hatfield et al. (2014) also broke the database up into ten ten-year periods, plus one time period covering all records prior to 1913 and calculated the RA of each species in each time period (e.g., pre-1913 = period 1, 1913-1922 = period 2). Then, using time as the explanatory variable and RA as the independent variable, a linear regression was conducted to assess longer-term trends in each species' RA (see Figures 2, 5, 7, and 9) (Hatfield et al. 2014). To evaluate extinction risk for several species Hatfield et al. (2014) used a linear trendline to project future declines and used the x-intercept as the theoretical point of extinction.

Sampling Effort

Specimen records were used for the analysis of change in range size, sampling effort likely played a significant role in determining species presence or absence (Hatfield et al. 2014). To account for varying sampling effort and avoid overestimating range loss, Hatfield et al. (2014) created sampling density rasters from the presence points, in both the current time period, and the random sample of the historical time period (using ArcGIS 10.2). For each species Hatfield et al. (2014) calculated the relative difference in sampling density in areas where the historical EOO did not overlap with the current period EOO. Using the area of this non-overlapping polygon, the average sampling density for both time periods was calculated (Hatfield et al. 2014). Species that experienced range loss in the current time period that had a lower sampling

density than historically had their range loss estimates adjusted by the relative difference in average sampling density to account for the change in effort. Hatfield et al. (2014) did not adjust the change in range estimates for species that had a higher sampling density in the current time period.

Since most records available for the bumble bee species included in this petition are from incidental observations or museum specimen records rather than from quantitative studies, population estimates at specific sites are unavailable. Furthermore, using field estimates of abundance to understand bumble bee population stability can be problematic because observations of multiple individuals may represent a single reproductive unit (because of the colonial life history of bumble bees).

III. LIFE HISTORY (SPECIES DESCRIPTION, BIOLOGY, AND ECOLOGY)

Bumble Bee Biology

Most bumble bees are primitively eusocial insects that live in colonies composed of a queen, workers, and, near the end of the season, reproductive members of the colony (new queens, or gynes, and males). There is a division of labor among these three types of bees. Queens are responsible for initiating colonies and laying eggs. Workers are responsible for most food collection, colony defense, and feeding of the young. Males' sole function is to mate with queens. Colonies are annual, starting from colony initiation by solitary queens in the spring, to production of workers, and finally to production of queens and males. Queens produced at the end of the colony cycle mate before entering diapause, which is a form of hibernation.

Bumble Bee Pollination Ecology

Bumble bee colonies depend on floral resources for their nutritional needs. Bumble bees collect both nectar and pollen of the plants that they pollinate. Nectar provides them with carbohydrates and pollen provides them with protein. Bumble bees are generalist foragers, meaning that they gather pollen and nectar from a wide variety of flowering plants; although individual species can vary greatly in their plant preferences, largely due to differences in tongue length.

During collection of pollen and nectar from flowers, bumble bees also transport pollen between flowers, facilitating seed and fruit production. Bumble bees have many qualities that contribute to their suitability as agricultural pollinators. They are able to fly in cooler temperatures and lower light levels than many other bees, which extends their work day and improves the pollination of crops during inclement weather (Corbet et al. 1993). Bumble bees are well-known to engage in "buzz pollination," a very effective foraging technique in which they sonicate the flowers to vibrate the pollen loose from the anthers. This activity causes the flower to vibrate, which in turn dislodges pollen that would have otherwise remained trapped in the flower's anthers (Buchmann 1983). Tomatoes (Solanaceae), blueberries (Ericaceae), and many other

important food plants are pollinated by bumble bees in this way. In addition to commercially important crops, bumble bees also play a vital role as generalist pollinators of native flowering plants, and their loss may have far ranging ecological impacts. Below we provide life history accounts, species identification, taxonomy, phenology, reproductive biology, habitat relationships, and vulnerability of populations to certain natural or human-caused adverse impacts for each of the petitioned species.

Crotch bumble bee (*Bombus crotchii*) Cresson 1878

Taxonomy

This species was described by Cresson (1878) and upheld as a distinct species in the subgenus *Cullamonobombus* by more recent analyses (Cameron et al. 2007; Williams et al. 2008a).

Identification

Bombus crotchii is most easily distinguished from other *Bombus* species based on hair coloration. Technical descriptions below are adapted from Williams et al. (2014):

> Queens: The queen is 22 to 25 mm in length. Their hair of the face is black with a yellow vertex (top of the head). Their hair is yellow on the front part of the thorax (scutum), usually with black hairs between and below the wings as well as at the back of the thorax (scutellum). On the abdomen, the first tergal (T-dorsal plate) segment is black, at least medially. T2 is yellow, sometimes with black medially and anteriorly. T3 has black anteriorly, sometimes with red posteriorly. T4 and T5 are either entirely red or black.
>
> Workers: The worker is 12 to 20 mm in length. Their color patterns are identical to the queens.
>
> Males: The male is 14 to 19 mm in length. The hair of the head and face are yellow with a yellow scutum and scutellum and a black band between the wings. T1 and T2 are yellow sometimes with yellow laterally and posteriorly on T3. T4-T7 are either entirely black or entirely red. Males of this species are greatly enlarged and bulbous.

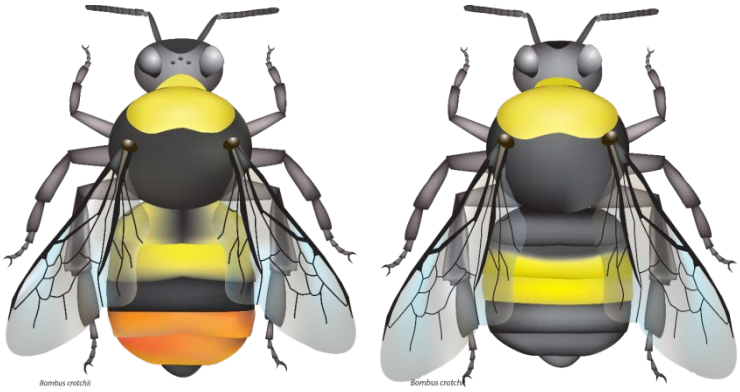


Figure 10: *Bombus crotchii* (female) queen/worker color forms. Although several color forms for females of this species have been described (Williams et al. 2014), the two color forms illustrated above are representative of female *B. crotchii* that occur in California. Illustrations by Elaine Evans and Rich Hatfield, the Xerces Society.

Franklin's bumble bee (*Bombus franklini*) (Frison, 1921)

Taxonomy

Bombus franklini is a valid species and its taxonomic status is uncontested. In 1971, Milliron questioned the taxonomic status of *Bombus franklini* as a valid species. Without presenting any evidence for his taxonomic decision, Milliron (1971) placed *B. franklini* in synonymy under *B. occidentalis* (Greene 1858) and then placed *B. occidentalis* in synonymy with *B. terricola*, which occurs in the eastern U.S. (Kirby 1837) on the basis of presumed overlapping color variation. This question has been addressed through studies of morphometrics by Plowright and Stephen (1980), the lack of intergradation (color/morphological) in areas of sympatry with *B. occidentalis* by Thorp et al. (1983), structure of the male genitalia by Williams (1991), and genetics (allozymes) by Scholl et al. (1992) and Cameron et al. (2007). All five studies between 1980 and 2007 concluded that *B. franklini* was indeed a valid species and distinct from *B. occidentalis*. *B. franklini* is currently recognized as a valid species by Williams et al (2014).

The original description by Frison (1921) was based on two queens sent to him by a commercial collector, E. J. Oslar and labeled by Oslar as having been collected at Nogales, Arizona in July 1917. Subsequently, Frison (1923) found additional specimens in the collections of the U.S. National Museum from "Oregon" (without more specific locality data) collected by C. F. Baker which he designated as a worker "Morphotype" and a male "Allotype." In 1926, Frison published additional records of one worker each from Roseburg and Gold Hill, Oregon, collected by H. A. Scullen. The same two records were published by Scullen (1927). Subsequently, evidence was marshaled by Thorp (1970) to dispute the putative Arizona records of *B. franklini* and to propose Gold Hill, Jackson County, Oregon the realistic type locality. Evidence included finding specimens of many other west coast bumble bee species labeled by Oslar as having been collected in southern Arizona about the same time, but representing a great disjunction for each of the species. Field studies by R. W. Thorp also failed to turn up *B. franklini* or any of the other

dozen species of bumble bees also labeled by Oslar as having been collected in southern Arizona. This is supported by evidence presented on species of *Andrena* by LaBerge (1980; 1986) and the lack of specimens from the area in major bee collections (in Thorp et al. 2010).

Identification

Bombus franklini is readily distinguished from other bumble bees in its range by the extended yellow on the anterior thorax which extends well beyond the wing bases and forms an inverted U-shape around the central patch of black, lack of yellow on the abdomen, predominantly black face with yellow on top of the head, and white at the tip of the abdomen. Other bumble bees with similar color patterns in the range of *B. franklini* have the yellow extending back to the wing bases or only slightly beyond and usually have one or more bands of yellow on the middle or slightly behind the middle of the abdomen (most on T-4). Females of most species have yellow hair on the face, in contrast to black on *B. franklini*. Females of *B. occidentalis* and *B. fervidus* that have black hair on the face also have black hair on the vertex in contrast to the yellow hair on the vertex in *B. franklini*. Females of *B. fervidus* have a long face in contrast to the round face of *B. franklini* and *B. occidentalis*.

Queens & Workers

Face round with area between bottom of compound eye and base of mandible (= malar space) shorter than wide; hair predominantly black with some shorter light hairs intermixed above and below antennal bases. Hair on top of head (= vertex) yellow. Hair of thorax (= mesosoma) on anterior two-thirds above (= scutum) yellow extending rearward laterally inside and beyond the wing bases (= tegulae) to rear third (= scutellum), but interrupted medioposteriorly by inverted U-shaped patch of black; hair on posterior third above (= scutellum) black; hair of thorax laterally (= mesopleura) black, except for small patch of yellow in upper anterior corner in area of pronotal lobes. Hair of abdomen (= metasoma) black except for whitish or silvery hair at sides and apex of 5th plate above (= tergum 5, = T-5).

Males

As for female, except malar space as long as wide, face below antennae with predominantly yellow hair, and T-6 with some pale hair laterally.



Figure 11: Female *Bombus franklini*. Illustration by Elaine Evans, The Xerces Society.

Western bumble bee (*Bombus occidentalis occidentalis*) Greene, 1858

Taxonomy

Bombus occidentalis is considered a valid species (Franklin 1913; Thorp 2005c; Cameron et al. 2007; Bertsch et al. 2010; Williams et al. 2012). *Bombus occidentalis* consists of two valid subspecies: *Bombus occidentalis occidentalis* and *Bombus occidentalis mckayi* (Williams et al. 2012; Sheffield et al. 2016).

Identification

B. occidentalis occidentalis is most easily distinguished from other *Bombus* species based on hair coloration. Note, however, that coloration in this species can be highly variable, and eight female and seven male color forms have been described (Sheffield et al. 2016). There are two prominent color forms of *B. o. occidentalis* most likely to be encountered in California. Those found in the mountains ("*occidentalis*" form) are likely to have bright white coloration on the posterior end of the abdomen (Thorp 2013, pers. comm.); this character is unusual and obvious. The "*occidentalis*" form (without any yellow on T1-4) is found throughout in the eastern part of the state in the Sierra-Cascade Range from near Yosemite to Oregon and west along the northern tier of counties into Humboldt County (Thorp 2017, pers. comm.). Specimens found closer to the coast ("*nigroscutatus*" form) replace the bright white hairs with yellowish orange hairs (Williams et al. 2014). The "*nigroscutatus*" form includes all populations on the coast and Coast Ranges from Monterey County north into Humboldt County where the yellow banding becomes narrower (Thorp 2017, pers. comm.). However, some of these yellow-banded individuals have recently been located on the Eagle Lake Ranger District of the Lassen National Forest (Rickman 2017, pers. comm.). Technical descriptions below are adapted from Williams et al. (2014):

> Queens: The queen is 20 to 21 mm in length. Their hair is entirely black on the head sometimes with a minority of yellow or gray hairs mixed in above the antennae. Their hair is yellow on the front part of the thorax (scutum), usually with black, or a minority of yellow hairs at the back of the thorax (scutellum). The majority of the hairs between and

below the wings are black. On the abdomen, the first two tergal (dorsal plate) segments (T1-T2) are black. If T3 is entirely yellow, then T4 is black, T5 white. If T3 is black, or with a minority of yellow, T4 and T5 are white.

Workers: The worker is 9 to 15 mm in length. Their hair is entirely black on the head sometimes with a minority of yellow or grayish hairs mixed in above the antennae. Their hair is yellow on the front part of the thorax (scutum), usually with black, or a minority of yellow hairs at the back of the thorax (scutellum). The majority of the hairs between and below the wings are black. On the abdomen, the first tergal (T1-dorsal plate) segment is black. T2 has at least some black on it centrally and anteriorly. If T3 is entirely yellow, the white hairs on T4 (if applicable) and T5 seen in queens will be replaced with yellowish orange hairs. If T3 with at most a minority of yellow hairs, T4 and T5 are white.

Males: The male is 13 to 17 mm in length. The hair on the head is pale yellowish on the front of the face. The top of the head has pale yellowish hairs medially, with some black hairs, especially laterally. The hair on the front of the thorax is pale yellowish. The hair on T1 is black with at least some black centrally and anteriorly on T2. If T3 is black the basal part of the fourth abdominal segment is black, with the remainder, as well as segments five to seven, whitish – although sometimes a yellowish orange. If T3 is entirely yellow, T5 is black basally, and the remainder, as well as T6-T7 are yellowish orange.

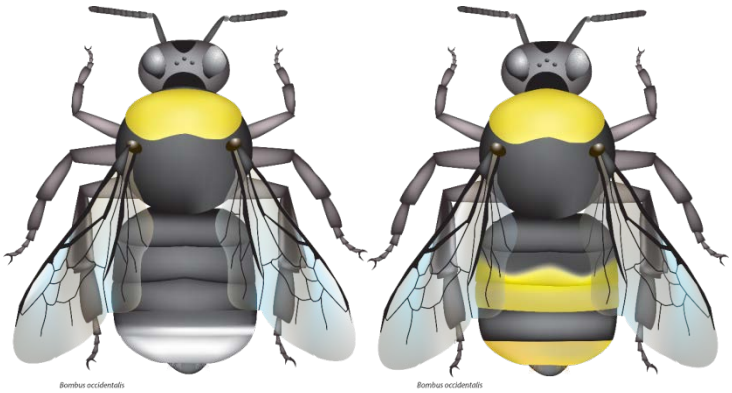


Figure 12: *Bombus. o. occidentalis* (female) worker, nominate color form ("*occidentalis*" - left), coastal color form ("*nigroscutatus*" - right). Although eight color forms for females of this species have been described (Sheffield et al. 2016), the two color forms illustrated above are representative of the two color forms of female *B. o. occidentalis* that occur in California. Illustrations by Elaine Evans and Rich Hatfield, the Xerces Society.

Suckley Cuckoo Bumble Bee (*Bombus suckleyi*) Greene, 1860

Taxonomy

This species was described by Greene (1860) and recent analyses have confirmed that it is a

valid species in the subgenus *Psithyrus* (Cameron et al. 2007; Williams et al. 2008a).

Identification

As a social parasite of other *Bombus* species, the females of this species do not collect pollen and do not have a corbicula (pollen carrying basket) on their hind leg tibia. There is also no worker caste in this species; all individuals are either male or reproductive females. *Bombus suckleyi* is most easily distinguished in the field from other *Bombus* species based on hair coloration and physical characteristics. The species that look similar to *B. suckleyi* with overlapping ranges in California are *B. insularis* and *B. flavidus*. The differences between these species and *B. suckleyi* are noted in the detailed description below (descriptions compiled in part from Williams *et al.* 2014).

> Females: *Bombus suckleyi* females are 18 to 23 mm in length. Cuckoo bumble bees, members of the subgenus *Psithyrus* (including *B. suckleyi*), do not have a corbicula (pollen carrying basket on their hind leg), unlike the true bumble bees (pollen collecting, social species). Instead, their hind leg tibia is convex and densely covered in hairs. *B. suckleyi*'s hair is short and even. The hair of the head (including the vertex – top of the head) is black (contrast *B. insularis* – yellow face and vertex, and *B. flavidus* – yellow vertex). The hair of the thorax (including below the wings) is mostly yellow, with a black spot or band between the wings, sometimes with a black triangular notch behind, and between the wings. The first two tergal (T-dorsal plate) segments on the abdomen are black (contrast most *B. flavidus*), usually with at least some yellow (laterally and posteriorly) on T3 – no yellow centrally. T4 has predominantly yellow hairs, with a patch of black centrally and anteriorly (contrast *B. flavidus*). T5 is usually black, but can have yellow laterally; T6 is black.
>
> Males: The male is 13 to 16 mm in length. The color patterns for males of this species are extremely variable. The only consistent features are yellow on all of T1 and T4 (contrast *B. insularis*), with some (or all) yellow on T2, T3, T5 and T6. T7 is black (contrast *B. flavidus*).
>
> The illustration below represents the color patterns exhibited by females. Males tend to have more yellow on the abdomen, especially on the first (anterioral) abdominal segment. The hair of the face on both males and females of this species is black (contrasted with *B. insularis* – a sympatric and common member of the *Psithyrus* subgenus and look-alike species).



Figure 13: Female *Bombus suckleyi*. Illustration © Paul Williams (identification and color patterns), Elaine Evans (bee body design), and Rich Hatfield.

IV. KIND OF HABITAT NECESSARY FOR SURVIVAL

Habitat Requirements

All bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens. In addition, their populations can be negatively affected by both pathogens and pesticides; thus, they may require habitat that is free from exposure to high levels of both native and exotic pathogens, and pesticides that cause harm to colonies. Bumble bees are found in a wide variety of natural, agricultural, urban, and rural habitats, although species richness tends to peak in flower-rich meadows of forests and subalpine zones (Goulson 2010).

Nest and Overwintering Sites

Bumble bee colony success is often limited by the availability of suitable nesting and overwintering sites. Diverse habitat features will increase the likelihood of nesting and overwintering success. Bumble bee queens emerge from hibernation in the early spring and immediately start foraging for pollen and nectar and begin to search for a nest site. Nesting preferences vary by species and local habitat conditions. Nests are often located underground in abandoned holes made by ground squirrels, mice, and rats, or occasionally abandoned bird nests (Osborne et al. 2008). Some species nest on the surface of the ground (in tufts of grass) or in empty cavities. Bumble bees that nest aboveground may require undisturbed areas with nesting resources such as grass and hay to protect nests (Williams et al. 2014). Furthermore, areas with woody cover, or other sheltered areas provide bumble bees sites to build their nest (e.g., downed wood, rock walls, brush piles, etc.).

Although little is known about the overwintering habits of most bumble bee species, some species are known to dig a few centimeters into soft, disturbed soil and form an oval shaped chamber in which the queen will spend the duration of the winter. Other species may overwinter

in small cavities just below or on the ground surface. Compost in gardens, leaf litter, or mole hills may provide suitable protection for queens to overwinter (Goulson 2010) before they emerge to begin a new colony (Williams et al. 2014). While there is still much to be learned about the nesting and overwintering biology of bumble bees, any near-surface or subsurface disturbance of the ground can be disastrous for bumble bee colonies or overwintering queens. This includes mowing, fire, tilling, grazing, and planting. Having large areas of land free from such practices is essential for sustaining bumble bee populations. Since bumble bees usually nest in abandoned rodent nests, nesting sites may be limited by the abundance of rodents; thus it is also important to retain landscape features that will support rodent populations. Furthermore, reducing ground disturbance can promote overwintering habitat for bumble bees (McFrederick and LeBuhn 2006).

Floral Resources

Bumble bees depend on the availability of habitats with a rich supply of floral resources that bloom continuously during the entirety of the colony's life. The queen collects nectar and pollen from flowers to support the production of her eggs, which are fertilized by sperm she has stored since mating the previous fall. In the early stages of colony development, the queen is responsible for all food collection and care of the young. As the colony grows, workers take over the duties of food collection, colony defense, and care of the young. The queen then remains within the nest and spends most of her time laying eggs. Colonies typically consist of between 50 and 500 workers at their peak (Plath 1927; Thorp et al. 1983; Macfarlane et al. 1994) along with the queen. Queen production is dependent on access to sufficient quantities of pollen. Thus, the amount of pollen available to bumble bee colonies directly affects the number of queens that can be produced (Burns 2004). Furthermore, since queens are the only bumble bees capable of forming new colonies, pollen availability directly impacts future bumble bee population levels. In fact, landscape level habitat quality has been shown to influence bumble bee species richness and abundance, indicating that isolated patches of habitat are not sufficient to fully support bumble bee populations (Hatfield and LeBuhn 2007; Öckinger and Smith 2007).

Bumble bees play the vital role of pollinators as they transfer pollen between native flowering plants when they are foraging. As generalist foragers, bumble bees do not depend on any one flower type. However, some plants do rely on bumble bees to achieve pollination. The loss of bumble bees can have far ranging ecological impacts due to their role as pollinators. An examination of the theoretical effect of removal of specialist and generalist pollinators on the extinction of plant species concluded that the loss of generalist pollinators poses the greatest threat to pollinator networks (Memmott et al. 2004). In Britain and the Netherlands, where multiple bumble bee species, as well as other bees, have gone extinct, there is evidence of decline in the abundance of insect pollinated plants (Biesmeijer et al. 2006).

Since bumble bee colonies obtain all of their nutrition from pollen and nectar, they need a

constant supply of flowers in bloom. Not all flowers are of equal value to bumble bees. Many varietal hybrids do not produce as much pollen and/or nectar as their wild counterparts (Frankie et al. 2005). Bumble bees do have preferences for certain species of plants. Generally, they prefer flowers that are purple, blue, or yellow; they are essentially blind to the color red and will not forage on red flowers (unless there are UV cues on the petals). Having plants with a diversity of corolla tube lengths will support bumble bees with varying tongue lengths. Bumble bees also show a strong preference to perennial plants as opposed to annuals; perennials tend to have higher quantities of nectar (Fussel and Corbet 1992). In addition to flowers, many bumble bee species may benefit from the presence of native bunch grasses. Bunch grasses will add multiple textures and heights to a garden or landscape and provide places for bumble bees to nest and overwinter.

Crotch Bumble Bee (*Bombus crotchii*) Habitat Requirements

In California, *B. crotchii* inhabits open grassland and scrub habitats. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (Williams et al. 2014). This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range (Hatfield et al. 2014; Richardson et al. 2014).

Nest Sites

The size of *Bombus crotchii* colonies has not been well documented. *B. crotchii*, like most other species of bumble bees, primarily nests underground (Williams et al. 2014).

Floral Resources

Bumble bees, including *Bombus crotchii*, are generalist foragers and have been reported visiting a wide variety of flowering plants. *B. crotchii* has a very short tongue, and thus is best suited to forage at open flowers with short corollas. The plant families most commonly associated with *B. crotchii* observations or collections from California include Fabaceae (66 observations), Apocynaceae (47), Asteraceae (28), Lamiaceae (27), Boraginaceae (12) (Richardson 2017). Similarly, in an analysis largely based on records from California, Thorp et al. (1983) reports that *B. crotchii* records are primarily associated with plants in the Leguminosae (=Fabaceae), Labiatae (=Lamiaceae), Hydrophyllaceae (=Hydrophylloideae), Asclepiadaceae (=Asclepiadoideae), and Compositae (=Asteraceae). Williams et al. (2014) report plants in the genera *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia,* and *Salvia* as example food plants. Note that these floral associations do not necessarily represent *B. crotchii's* preference for these plants over other flowering plants, but rather may represent the prevalence of these flowers in the landscape where this species occurs.

Overwintering Sites

Very little is known about the hibernacula, or overwintering sites utilized by *Bombus crotchii*. Generally, bumble bees overwinter in soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014).

Phenology

According to Thorp et al. (1983), the flight period for *Bombus crotchii* queens in California is from late February to late October, peaking in early April, with a second pulse in July. The flight period for workers and males in California is from late March through September; worker and male abundance peak in early July (Thorp et al. 1983).

Franklin's Bumble Bee (*Bombus franklini*) Habitat Requirements

Bombus franklini has the most limited geographic distribution of any bumble bee in North America and possibly the world (Williams 1998). It is known from Siskiyou and Trinity counties in California. *Bombus franklini* inhabits open grassy coastal prairies and Coast Range meadows from southern Oregon to northern California. Elevations of localities where it has been found range from 540 feet (162 m) in the north to above 7800 feet (2340 m) in the south of its historic range.

Nest Sites

The nesting biology of *B. franklini* is unknown, but it probably nests in abandoned rodent burrows as is typical for other members of the subgenus *Bombus sensu stricto* (Hobbs 1968).

Floral Resources

Like other bumble bees, *Bombus franklini* is a generalist forager and has been reported visiting a wide variety of flowering plants. *B. franklini* has been observed collecting pollen from lupine (*Lupinus* spp.) and California poppy (*Eschscholzia californica*), and collecting nectar from horsemint or nettle-leaf giant hyssop (*Agastache urticifolia*) and mountain monardella (*Monardella odoratissima*) (Thorp et al. 2010). This species may collect both pollen and nectar from vetch (*Vicia* spp.) as well as rob nectar from it (Thorp et al. 2010).

Overwintering Sites

Very little is known about the hibernacula, or overwintering sites, utilized by *B. franklini*, although generally bumble bee females are known to overwinter in soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014).

Phenology

The flight season of *B. franklini* is from mid-May to the end of September (Thorp et al. 1983).

Western Bumble Bee (*Bombus occidentalis occidentalis*) Habitat Requirements

Meadows and grasslands with abundant floral resources are the appropriate habitat for this

subspecies. While *Bombus occidentalis occidentalis* was historically known throughout the mountains and northern coast of California, it is now largely confined to high elevation sites and a small handful of records on the northern California coast (Cameron et al. 2011a; Xerces Society 2012; Williams et al. 2014; Xerces Society et al. 2017).

Nest Sites

Reports of *Bombus occidentalis occidentalis* nests are primarily in underground cavities such as old squirrel or other animal nests and in open west-southwest slopes bordered by trees, although a few nests have been reported from above-ground locations such as in logs among railroad ties (Plath 1922; Hobbs 1968; Thorp et al. 1983; Macfarlane et al. 1994). Thus, *B. o. occidentalis* nesting sites may be limited by rodent abundance (Evans et al. 2008). Nest tunnels have been reported to be up to 2.1 m long for this species and the nests may be lined with grass or bird feathers (MacFarlane et al. 1994). *Bombus o. occidentalis* colonies can contain as many as 1,685 workers and produce up to 360 new queens; this colony size is considered large relative to many other species of bumble bees (MacFarlane et al. 1994).

Floral Resources

Bumble bees, including *Bombus occidentalis occidentalis*, are generalist foragers and have been reported visiting a wide variety of flowering plants. *B. o. occidentalis* has a very short tongue, and thus is best suited to forage at open flowers with short corollas and has also been documented 'nectar robbing' – biting through the corolla tube and drinking nectar through the hole without contacting the anthers, or stigma of the plant – several species of flowers with longer corolla tubes. Bumble bees require plants that bloom and provide adequate nectar and pollen throughout the colony's life cycle, which is from early February to late November for *B. o. occidentalis* (although the actual dates likely vary by elevation and local climatic conditions, including interannual variation). The plant genera most commonly associated with *B. o. occidentalis* observations or collections from California include *Cirsium* (36 observations), *Erigonum* (18), *Solidago* (16), "Aster" (14), *Ceanothus* (13), *Centaurea* (13), and *Penstemon* (13) (Richardson 2017). Similarly, in an analysis largely based on records from California, Thorp et al. (1983) reports that *B. o. occidentalis* records are primarily associated with plants in the Leguminosae (=Fabaceae), Compositae (=Asteraceae), Rhamnaceae, and Rosaceae families. Note that these floral associations do not necessarily represent *B. o. occidentalis*' preference for these plants over other flowering plants, but rather may represent the abundance of these flowers in the landscape.

Overwintering Sites

Very little is known about the hibernacula, or overwintering sites utilized by most bumble bees, although Hobbs (1968) reported *B. occidentalis* hibernacula that were two inches deep in a "steep west slope of the mound of earth." The closely related *B. terrestris* reportedly hibernates beneath trees (Sladen 1912; *In* Hobbs 1968).

Phenology

According to Thorp et al. (1983), the flight period for *Bombus occidentalis occidentalis* queens in California is from early February to late November, peaking in late June and late September. The flight period for workers and males in California is from early April to early November; worker abundance peaks in early August, and male abundance peaks in early September (Thorp et al. 1983). Rangewide, including the entire species complex (including *B. o. mckayi*), queens peak in late June, workers peak in early August, and males peak in late August (Williams et al. 2014).

Suckley Cuckoo Bumble Bee (*Bombus suckleyi*) Habitat Requirements

Bombus suckleyi habitat includes western meadows largely confined to mountainous regions. *B. suckleyi*, and other species of bumble bee in the subgenus *Psithyrus*, are unique in that they have an obligate dependency on social bumble bees (Goulson 2010) to collect pollen on which to rear their young. As such, *B. suckleyi* are a cuckoo species that are nest parasites of other species of bumble bees and are not primitively eusocial themselves – there is no division of labor within the species; all members of the species have equal status, and are reproductive. Cuckoo bumble bees typically emerge from their hibernacula later in the spring than other bumble bee species. Once the female cuckoo bumble bee does emerge, she forages for herself and begins searching for occupied nests. When she finds a suitable host (*B. suckleyi* utilizes *B. occidentalis* hosts [Thorp et al. 1983]) she enters the nest, kills or subdues the queen of that colony, and forcibly (using pheromones and/or physical attacks) "enslaves" the workers of that colony. Then she lays her own eggs and forces the workers of the native colony to feed her and her developing young. Since all of the resulting cuckoo bee offspring are reproductive (not workers), they leave the colony to mate, and the mated females seek out a place to overwinter, then repeat the cycle the following spring/early summer (Goulson 2010).

Cuckoo bumble bees often attack a broad range of host species, but some species specialize in attacking the members of just one species or subgenus. *B. suckleyi* has been recorded in nests of bumble bees in six different subgenera, but the most common association is with the subgenera *Pyrobombus* and *Bombus*, and the only nests in which *B. suckleyi* adults have been produced are those of *B. occidentalis* (reviewed in Thorp et al. 1983). As such, *B. suckleyi* has been documented breeding as a parasite of colonies of *Bombus occidentalis*, and has been recorded as present in the colonies of *B. terricola*, *B. rufocinctus*, *B. fervidus*, *B. nevadensis*, and *B. appositus* (Williams et al. 2014). Males of this species patrol circuits in search of mates (Thorp et al. 1983).

Nest Sites

Bombus suckleyi has been detected in the nests of several species of bumble bees, but it has only ever been observed reproducing in nests of *B. occidentalis* (Thorp et al. 1983). *B. occidentalis* nests are primarily in underground cavities such as old squirrel or other animal nests and in open

west-southwest slopes bordered by trees, although a few nests have been reported from above-ground locations such as in logs among railroad ties (Plath 1922; Hobbs 1968; Macfarlane et al. 1994; Thorp et al. 1983). Availability of nest sites for *B. occidentalis* may depend on rodent abundance (Evans et al. 2008). *B. occidentalis* nest tunnels have been reported to be up to 2.1 m long and the nests may be lined with grass or bird feathers (Macfarlane et al. 1994). *Bombus suckleyi* depends upon not only the presence of suitable nesting sites for *B. occidentalis*, but also upon extant populations of that species.

Floral Resources

Bumble bees require plants that bloom and provide adequate nectar and pollen throughout the colony's life cycle. In order for *B. suckleyi* to survive, there must also be early season resources for its host, *B. occidentalis*. There are records of *B. occidentalis* from early February to late November. The amount of pollen available in the landscape directly affects the number of new queens that a bumble bee colony can produce, and since queens are the reproductive members of the colony, pollen availability is directly related to future bumble bee population size (Burns 2004). Early spring and late fall are often periods with lower floral resources; the presence of flowering plants at these critical times is essential.

Bombus suckleyi is a generalist forager and has been reported to visit a wide variety of flowering plants. The known plant associations for this species in California are scarce, but generally this species is associated with plants in the following genera: "Aster", *Chrysothamnus*, *Cirsium*, *Solidago*, and *Centaurea* (Williams et al. 2014; Richardson 2017). Plant genera that are associated with *B. occidentalis occidentalis* – its known host, and a prerequisite for the survival of *B. suckleyi* include: *Cirsium* (36 observations), *Erigonum* (18), *Solidago* (16), "Aster" (14), *Ceanothus* (13), *Centaurea* (13), and *Penstemon* (13) (Richardson 2017). Note that these floral associations do not necessarily represent *B. occidentalis'* or *B. suckleyi*'s preference for these plants over other flowering plants, but rather may represent the abundance of these flowers in the landscape.

Overwintering Sites

Very little is known about the hibernacula, or overwintering sites, utilized by *Bombus suckleyi*, although generally bumble bee females are known to overwinter in soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014).

Phenology

According to Thorp et al. (1983), the flight period for *B. suckleyi* females in California is from late May to late October, peaking in June. The flight period for males in California is from early July to late September; peaking late July, with a second pulse late August and early September (Thorp et al. 1983).

V. FACTORS AFFECTING ABILITY TO SURVIVE AND REPRODUCE

Each of the following factors pose a substantial threat to the survival of the four species of bumble bees included in this petition: present or threatened modification or destruction of its habitat; overexploitation; competition; disease; and other natural events and human-related activities, including pesticide use, genetic factors, and climate change (reviewed *in* Williams and Osborne 2009; Williams et al. 2009; Goulson 2010; Cameron et al. 2011b; Hatfield et al. 2012; Fürst et al. 2014). In addition, the cuckoo bumble bee species (*Bombus suckleyi*) is threatened by loss of its primary host species, *B. occidentalis occidentalis*. Below we summarize the rationale and available evidence that each factor poses a threat to these four bumble bee species.

A. Present or Threatened Modification or Destruction of Habitat

1. The Loss of Habitat Due to Human Induced Landscape Scale Modifications

Many North American bumble bees face threats from habitat alterations that can interfere with primary habitat requirements, including access to: sufficient food (nectar and pollen from flowers), nesting sites (such as underground abandoned rodent cavities or above ground in clumps of grasses), and overwintering sites for hibernating queens (undisturbed soil and leaf litter).

Many bumble bees historically occupied the grasslands and prairies of the continent, including California, which have largely been lost or fragmented by agricultural conversion and urban development or transformed by fire suppression, invasive species, and livestock grazing. Noss et al. (1995) considers all native grasslands in California to be a critically endangered ecosystem, having declined by more than 98%. *Bombus crotchii* was historically known from throughout California's Central Valley, which once contained vast prairies rich with wildflowers. Indeed, historic accounts of the San Joaquin Valley describe abundant and widespread wildflowers; in 1868 John Muir wrote: "the valley of the San Joaquin is the floweriest piece of world I ever walked, one vast level, even flower-bed, a sheet of flowers…". The U.S. Geological Survey reports that more than 260,000 acres of grassland and shrubland habitat within California's Central Valley ecoregion were either developed for housing or converted to agriculture between 1980 and 2000 (Sleeter 2016) – accounting for nearly 4% of the 7 million acres that make up the Central Valley. A more recent study (Lark et al. 2015) highlights the rate of grassland conversion to agriculture across the U.S. from 2008-2012, and the rate of loss is more severe in California's Central Valley than any other ecoregion in the western US.

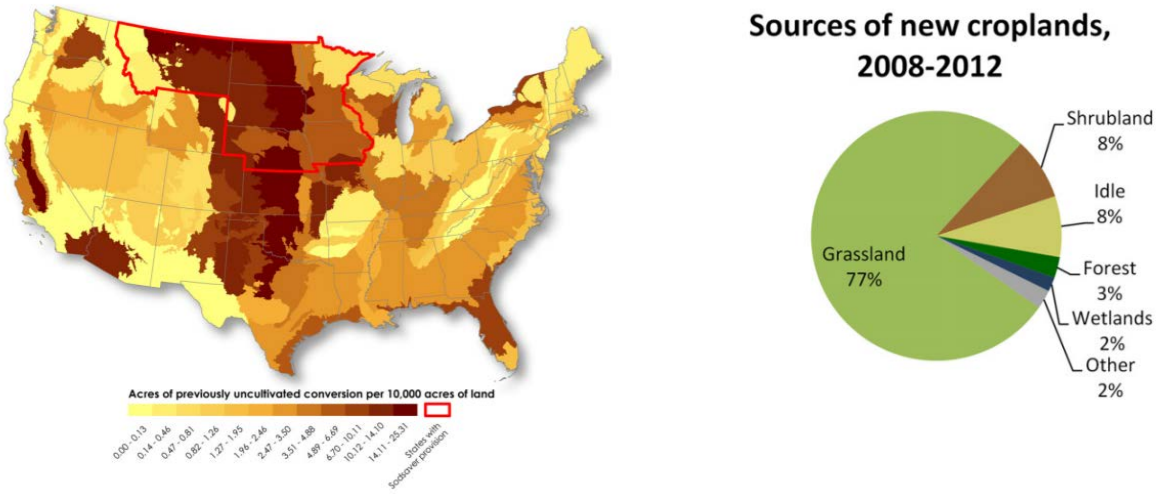


Figure 14: Left: 2008–2012 conversion of previously uncultivated land. The map identifies the amount of conversion to cropland from land that had not previously been used for agriculture (cropland or pasture), confirmed back to the early 1970s. Display units represent average number of previously uncultivated acres converted per 10 000 acres of total land within each EPA Level III Ecoregion. Red outline is of the six states covered under the 2014 US Farm Bill 'Sodsaver' provision, which aims to reduce conversion of previously uncultivated land. The observed patterns of elevated nationwide conversion suggest that the new policy's limited geographic coverage will likely be insufficient to prevent the majority of new breakings. Right: Types of land converted to crop production. Grasslands were the most common land cover to be converted to cropland, followed by shrubland and long term (10+ year) idle land. Figures from Lark et al. (2015).

In addition to the endangerment of critical prairie ecosystems, mountain meadows throughout the western United States are also a highly imperiled ecosystem, and are experiencing continued threats from climate change (Field et al. 2007; Parry et al. 2007; Saunders et al. 2008), livestock grazing (Belsky et al. 1999; Hayes & Holl 2003; Stoner & Joern 2004; Hatfield & LeBuhn 2007), and forest encroachment (Skinner 1995; Coop & Givnish 2007; Zald et al. 2012; Highland & Jones 2014). Recent analyses of western meadows in Oregon and Washington, which provide important habitat for bumble bees (Goulson 2010; Williams et al. 2014), indicate that they have lost between 18% and 40% of their area due to encroaching conifers (Skinner 1995; Coop & Givnish 2007). Several of the bees in this petition are known from montane meadows (including: *Bombus occidentalis occidentalis*, *B. franklini*, and *B. suckleyi*). Montane meadows may become particularly important habitats for declining bumble bee species as the climate warms and habitat loss in valleys and low elevation prairies increases.

Bumble bee species richness, abundance, and genetic diversity are influenced by the quality of habitat on a landscape level. While bumble bees can forage and disperse over relatively long distances, isolated patches of habitat may not be sufficient to support bumble bee populations (Hatfield & LeBuhn 2007; Öckinger & Smith 2007). Because of their unique method of sex determination and their colonial life cycle, bumble bees are particularly sensitive to habitat fragmentation and populations of bumble bees existing in fragmented habitats can also face

problems with inbreeding depression (Darvill et al. 2006; 2012; Ellis et al. 2006). Specifically, Darvill et al. (2012) found that bumble bee populations limited to less than 15 km^2 of habitat were more likely to show signs of inbreeding. Goulson (2010) suggests that a viable population of bumble bees probably requires approximately 3.3-10 km^2 of suitable habitat. Habitat fragmentation has been shown to reduce bumble bee foraging rates and alter their foraging patterns (Rusterholz and Baur 2010). Fragmented habitats may not support healthy metapopulation structures and may eliminate or decrease source populations of bumble bees for recolonization (National Research Council 2007). A study in California found that inbreeding in one common species of bumble bee (*B. vosnesenskii*) was lower in landscapes with increasing natural woodland cover relative to other landscape types (Jha 2015). Thus, agricultural intensification, livestock grazing, urban development, as well as other habitat modifications, can jeopardize the habitat needs of bumble bees and lead to the fragmentation of habitat into pieces that are too small or too distant to support diverse bumble bee communities (Goulson et al. 2008). The major landscape-scale modifications and their threats to bumble bees are outlined below.

i. Agricultural Intensification

The biggest changes within the range of the species in this petition have come from modern farming techniques that have enabled more intensive use of agricultural lands, widespread grazing of grasslands and meadows, and increased use of insecticides (reviewed in Hatfield et al. 2012). Agricultural intensification has been shown to have a negative impact on species richness, abundance and diversity of wild bees (Le Féon et al. 2010). Agricultural intensification is primarily blamed for the decline of bumble bees in Europe (Williams 1986; Carvell et al. 2006; Diekötter et al. 2006; Fitzpatrick et al. 2007; Kosior et al. 2007; Goulson et al. 2008), and may also pose a significant threat to bumble bees in the US (Hines & Hendrix 2005; Grixti et al. 2009). In fact, agricultural intensification and rapid urbanization in California's Central Valley may have reduced populations of *B. crotchii*, since this species was historically common in the Central Valley but now appears to be absent from much of its historic range, especially in the central part (Thorp 2014, pers. comm.; Hatfield et al. 2015a). Furthermore, increases in farm size and changes in technology and operating efficiency have led to many practices that can be detrimental to bumble bees. This has led to the loss of pollinator friendly hedgerows, weed cover, and legume pastures through more modern practices including more effective land leveling, irrigation, tilling, and pesticide and fertilizer usage. Tilling may directly destroy bumble bee overwintering sites and bumble bee nests may be at risk of being destroyed by farm machinery (Goulson 2003). One site within *Bombus franklini*'s historic range near Gold Hill in Jackson County, OR had significant excavation and deposited soil that altered approximately 50% of the bumble bee foraging habitat. The widespread application of the herbicide glyphosate in conjunction with increased planting of genetically modified crops that are tolerant to glyphosate has reduced the availability of milkweeds in agricultural field margins (Pleasants & Oberhauser 2013), and has probably had a similar effect on other wildflower species, which

would have also provided important nectar resources for bumble bees. In northern Alberta, one study found that genetically modified herbicide tolerant canola fields had a lower abundance of wild bees than conventional or organic canola fields (Morandin and Winston 2005). The broad scale use of pesticides, including a novel class of systemic insecticides (neonicotinoids), poses a unique threat to bumble bees; this topic is discussed in detail below under Factor E *Other Natural Events or Human-related Activities*.

Both floral abundance and grasslands are frequently reduced in agriculturally intensive landscapes. Hines and Hendrix (2005) found that bumble bee diversity in Iowa prairies was linked to floral abundance and the presence of grasslands in the surrounding landscape, both of which have been reduced in modern agricultural landscapes. Although some flowering crops provide nectar and pollen resources for bumble bees, which can lead to increased densities of bumble bees and colony growth (Westphal et al. 2003; 2009), large monocultures do not necessarily improve the reproductive success of bumble bees (Westphal et al. 2009); likely because the resources they provide are typically only available for a short period of time. Monocultures may in fact serve as population sinks since bumble bee colonies need floral resources throughout their colony cycle from early spring to fall (Goulson et al. 2008).

ii. Livestock Grazing

Ungulate grazing can significantly alter the landscape. Studies have shown that grazing can have both indirect and direct effects on bumble bee populations. Indirect effects include removing floral resources (Morris 1967; Sugden 1985; Kruess and Tscharntke 2002a; 2002b; Vazquez and Simberloff 2003; Hatfield and LeBuhn 2007; Xie et al. 2008; Kimoto 2010; Scohier et al. 2012) and potentially reducing populations of nesting rodents (e.g., Bueno et al. 2011), which in turn may reduce the number of nest sites available to bumble bees (Johnson & Horn 2008; Schmidt et al. 2009). Ungulates can directly affect above ground bumble bee nests by trampling (Sugden 1985). The habitat, type of grazer, as well as the timing, intensity, and length of livestock grazing are all factors that can influence how the practice affects flora and fauna (Gibson et al. 1992; Carvell 2002; Sjodin 2007). Numerous studies have found intensive sheep grazing to be particularly detrimental to bumble bee populations (Carvell 2002; Hatfield and LeBuhn 2007; Scohier et al. 2012), an effect that is likely due to the selective removal of flowers by sheep. In California, BLM and Forest Service lands historically occupied by *Bombus franklini* are periodically subject to substantial livestock impact. Although livestock grazing has differing impacts on flora and fauna based on the type, habitat, intensity, timing and length of livestock grazing (Gibson et al. 1992), several studies of livestock grazing on bees suggest increased intensity of livestock grazing negatively affects the species richness of bees (Morris 1967; Sugden 1985; Carvell 2002; Vazquez & Simberloff 2003; Hatfield & LeBuhn 2007).

iii. Urban Development

The conversion of the landscape to urban and suburban uses continues to transform and fragment

habitat, which has likely had a negative effect on populations of many bumble bee species, including the species listed in this petition. Roads and railroads fragment plant populations and thus restrict the movement of bumble bees (Bhattacharya et al. 2003). Recent research in northern California found that the overall area of the landscape covered by pavement had a negative effect on the density of bumble bee nests. In addition, bumble bee colony density was greater in natural oak chaparral than other landscape types, including urban areas (Jha & Kremen 2012). The western bumble bee has been found in some natural areas within urban environments, such as parks, restored prairies, and other natural areas near urban centers (Williams et al. 2014). Some residential gardens and urban parks can provide valuable floral, and in some cases, nesting and overwintering resources, and may serve as important habitat refuges for bumble bees (Frankie et al. 2005; McFrederick & LeBuhn 2006; Goulson 2010), even though they may not support the species richness that was found historically (McFrederick & LeBuhn 2006).

iv. Fire and Fire Suppression

Fire is an important natural and managed disturbance throughout natural areas in the United States. Historically, fires maintained forbs and grasses within meadows and prairies, and prevented shrubs and trees from encroaching. Due to decades of fire suppression and the growing proximity of housing developments to wildlands, suppression of wildfire is seen as necessary to protect natural resources, homes, and businesses (Radeloff et al. 2018). Fire suppression can lead to extensive changes in vegetation structure, including degradation and loss of grasslands and herbaceous species as the shrub community matures (Schultz & Crone 1998; Panzer 2002). The practice of fire suppression has compromised grassland habitats that formerly supported diverse communities of bumble bees. In forests, these changes include an increase in combustible fuel loads, increase in tree density, increase in fire intolerant species, and loss of the herbaceous layer as the shrub community matures (Huntzinger 2003). In forested meadows fire suppression can lead to invasion and maturation of shrubs and trees and an increase in invasive plants species. Eventually continued succession results in the degradation and loss of the grasslands (Schultz & Crone 1998; Panzer 2002). Forest encroachment not only reduces available bumble bee habitat, but also closes off corridors between meadows, which reduces dispersal and foraging opportunities (Roland & Matter 2007). Continued fire suppression not only results in habitat alteration, but also renders the habitat susceptible to catastrophic, large scale, and high temperature fires due to increases in combustible fuel loads, tree density, and fire intolerant species (Huntzinger 2003). Catastrophic, large scale, and high intensity fires may be particularly harmful to already vulnerable populations of bumble bees listed in this petition. The threat is particularly acute for *B. franklini*, as a single fire event in an area where *B. franklini* are concentrated could extirpate an entire population. Prescribed fire can be a valuable tool in restoring native prairie and meadow plant fauna, which in turn has the potential to benefit bumble bees. However, natural or introduced fire can be detrimental to bumble bee populations if not planned and executed carefully with the life history needs of bumble bees considered.

2. The Loss of Habitat Due to Increased Use of Herbicides

Herbicides are often used within invasive weed management, and can be more cost effective than other management methods. However, the use of herbicides to control weeds can indirectly harm pollinators through removal of flowers that once provided them with pollen and nectar resources (Williams 1986; Shepherd et al. 2003, Pleasants & Oberhauser 2013). In addition to indirect effects, some herbicides can directly harm pollinators.

Just as pollinators can influence the plant community, changes in vegetation can have an impact on pollinators (Kearns & Inouye 1997). The broadcast application of a non-selective herbicide can indiscriminately reduce floral resources for all bumble bees and nesting habitat for species that nest above ground, such as the American bumble bee (Smallidge & Leopold 1997). Bumble bees require consistent sources of nectar, pollen, and nesting material during times adults are active, typically from mid-February to late September in temperate areas. The reduction in resources caused by non-selective herbicide use could cause a decline in bumble bee reproductive success and/or survival rates. Kevan (1999) found that herbicides reduced Asteraceae and Lamiaceae flowers in France, contributing to a decline in bumble bee populations. Kevan (1999) also found that herbicide applications have reduced the reproductive success of blueberry pollinators by limiting alternative food sources that can sustain the insects when the blueberries are not in bloom. Kearns et al. (1998) state "herbicide use affects pollinators by reducing the availability of nectar plants. In some circumstances, herbicides appear to have a greater effect than insecticides on wild bee populations… Some of these bee populations show massive declines due to the lack of suitable nesting sites and alternative food plants."

The use of the herbicide glyphosate has dramatically increased with the widespread planting of genetically modified glyphosate-tolerant corn, soybean, and cotton, which were introduced in the late 1990s (Pleasants & Oberhauser 2013). With the introduction of genetically modified glyphosate tolerant (Roundup Ready^{TM}) soybeans in 1996 and corn in 1998, a 20-fold increase in the use of the herbicide glyphosate has occurred on these two crops from 1995-2013 (Center for Biological Diversity et al. 2014). Increased use of glyphosate in agricultural areas has likely led to the reduced availability of wildflowers in field margins – which otherwise would have been an important resource for bumble bees. Moreover, recent research showed that genetically modified glyphosate-tolerant soybean fields with standard and recommended application rates of glyphosate had lower diversity of flowering weeds than control fields (Scursoni et al. 2006). The loss of flowering weeds from agricultural areas that have become genetically modified during the period from 1996-present has likely deprived many of these species of bumble bees of significant amounts of nectar and pollen, and the continued loss of these critical resources presents a threat to the future survival of these species. Moreover, recent research within the Midwest has shown that simplification of landscapes through intensive agriculture leads to more pest pressure, and

thus increased application of insecticides (Meehan et al. 2011). Thus, the conversion of habitat to intensive agriculture throughout much of the United States, the increased use of glyphosate resistant crops, and the subsequent increase in insecticide use has likely had a compounding negative effect on bumble bees. Research has shown that genetically modified glyphosate-tolerant soybean fields with standard and recommended application rates of glyphosate had lower diversity of flowering weeds than control fields (Scursoni et al. 2006). Other studies have shown that agricultural lands without native habitat host a less diverse pollinator community (Kremen et al. 2002; Winfree et al. 2008; Morandin & Kremen 2013).

Recent studies (Dai et al. 2018; Motta et al. 2018) also raise the novel concern that glyphosate can negatively affect the beneficial bacterial colonies found in the honey bee gut thus indirectly affecting the health of bees. Motta et al. 2018 found that young worker bees exposed to field realistic levels of glyphosate experienced increase mortality with subsequent exposure to pathogens. The researchers' results indicate that the increased mortality was due to glyphosate reducing the protective effect of the gut microbiota.

Bumble bees could also be further threatened by the introduction of new herbicide-resistant crops that are genetically engineered to be resistant to multiple herbicides including 2,4-D and dicamba; many growers are switching to dicamba as weeds develop resistance to the herbicide glyphosate. The U.S. Department of Agriculture has recently approved a suite of 'next generation' genetically engineered (GE) herbicide resistant corn and soybeans developed by Dow Agrosciences and soy and cotton developed by Monsanto, which will be sold in conjunction with new combinations of herbicides. These GE crops are resistant to the herbicides 2,4-D, dicamba, and glyphosate (Roundup Ready Xtend^{TM} by Monsanto). The use of herbicides is expected to increase with the adoption of these 'next generation' GE crops (Mortensen et al. 2012). Dicamba and 2,4-D are already among the leading herbicides that cause drift-related crop injury because of their volatility (Freese and Crouch 2015 and references therein). Because of the increased volatility of dicamba and 2,4-D over glyphosate (which is currently the most widely used herbicide in the U.S.), the loss of flowering weeds and wildflowers growing within and adjacent to agricultural land within the range of imperiled bumble bees is expected to be more significant than at present.

As recently as 2015, 2,4-D and dicamba were already used widely within California's Central Valley on multiple crops (USGS 2017a; 2017b), and expanded use of these herbicides is expected to have a major negative impact on populations of already vulnerable bumble bees collecting nectar and pollen from weeds and wildflowers growing near crops. It is likely that the non-target effects of the new uses of these weed control technologies may have a dramatic impact on populations of imperiled bumble bees, given the portion of their selected ranges that overlap with modified corn, soybean, and cotton production.

Beyond impacts to forage, paraquat, 2,4-D, and dicamba may also be directly toxic to bumble bees. Paraquat was found to negatively affect honey bee larvae (Cousin et al. 2013). While 2,4-D has been designated by the U.S. EPA as practically non-toxic to bees it is on the cusp of being ranked as moderately toxic. Dicamba's toxicity ranges from moderately toxic to practically non-toxic depending on the route of exposure (U.S. EPA 2000). The toxicity classification that U.S. EPA uses is driven by a pesticide's LD50 (the lethal dose that kills 50% of the test population). If the pesticide's LD50 is 2 µg/bee or less it is considered highly toxic to bees. If the LD50 is greater than 2 µg/bee but less than 11 µg/bee it is moderately toxic. It is considered practically non-toxic if the LD50 is 11 µg/bee or more. 2,4_D has a reported LD50 of 11.5 µg/bee. Dicamba has an oral LD50 of 3.6 µg/bee, but a contact LD50 of >100 µg/bee. This very blunt measure of risk may underestimate the direct impacts that 2,4-D and dicamba could have on bumble bees, especially since the test subject for these chemicals was the European honey bee, which has been shown to be a poor surrogate for non-*Apis* bees (Wisk et al. 2014). The increasing use of these herbicides should be considered a threat to the continued survival of these imperiled bumble bees due to both the anticipated indirect effects (through destruction of floral resources) and direct effects (through direct toxicity).

The range of two of the species listed in this petition (*Bombus crotchii* and *B. occidentalis occidentalis*) overlaps, at least in part, with the Central Valley of California, which has been subjected to high uses of glyphosate; which is the most commonly used pesticide within the state of California (CA DPR 2014). *B. crotchii* has experienced more significant declines in the Central Valley than it has at the edges of its range (Hatfield et al. 2015a; see Figure 1in Section II); intensive agriculture and associated herbicide use may be responsible for this pattern. Moreover, glyphosate was used for agricultural purposes in 98% of counties in the lower 48 states. The widespread use of glyphosate is a threat to the continued existence of all four petitioned bumble bee species.

In summary, the evidence presented above shows clearly that 1) the use of herbicides has both direct (2,4-D, paraquat dichloride and dicamba are toxic to bees) and indirect (removal of floral resources) effects on bumble bee populations; and 2) the use of herbicides is widespread and pervasive throughout the range of all the bumble bees listed in this petition. As such, herbicides pose a direct threat to the continued existence of each species included in this petition.

B. Overexploitation

While specimens of female workers or males are occasionally collected for research purposes, scientific and/or recreational collection probably does not pose a threat to the overall survival of the species in this petition. In fact, collection of female workers of each of these species since the late 1800s has contributed essential information to understanding species' historic ranges and

conservation statuses. However, if bumble bee queens are collected, the entire colony will be effectively eliminated. Collection of queens or large numbers of workers or males from populations that are already small and isolated could threaten these species with extinction, although there is no evidence that this practice is occurring with these species.

To the best of the petitioners' knowledge, none of the petitioned species are currently being produced or sold commercially. However, in the early 1990s, *B. occidentalis* was produced commercially (Flanders et al. 2003) by both of the two primary commercial bumble bee producers operating in North America (Koppert Biological Systems and Biobest) and distributed for pollination use in the western U.S. In 1995, one company reported a mass outbreak of the fungal pathogen *Nosema bombi* in commercial colonies of *B. occidentalis* (Flanders et al. 2003). By 1997, commercial production of the western bumble bee stopped, as producers were no longer able to contend with the pathogen outbreaks (Velthius & Van Doorn 2006). Currently in North America, the common eastern bumble bee (*Bombus impatiens*) is produced on a large scale; over a million commercially produced bumble bee colonies are imported annually across the globe to pollinate greenhouse crops (Velthius and Van Doorn 2006). Commercial bumble bees are used in both greenhouse and open field pollination throughout the U.S. (except in Oregon, where use is prohibited, and California, where only greenhouse use is allowed), and two western species – Hunt's bumble bee (*Bombus huntii*) (APHIS 2014; Biobest Group 2018a [advertises *B. huntii* for use in indoor crops; though at the time of submission of this petition it is not currently available in the western U.S.]; 2018b) and the yellow faced bumble bee (*Bombus vosnesenskii*) (I. Noell, USFS, pers. comm. with R. Hatfield 2016) are being developed for larger scale commercial production. The commercial production and release into the wild of these three species of bumble bees poses a threat to the petitioned species because pathogens may be amplified in commercial rearing facilities and then spill over into wild populations, or novel pathogens may be introduced, since commercial bumble bees are currently reared in facilities outside of their native ranges or moved to areas beyond their native ranges (Meeus et al. 2011). The risk of disease transfer via commercial bumble bees is further discussed in Factor D: *Disease.*

Though overexploitation does not currently pose a substantial threat to the species included in this petition, there is strong evidence to suggest that historically the commercial production of one subspecies petitioned here – *Bombus occidentalis occidentalis* – and the associated amplification of fungal pathogens in commercial colonies led to the dramatic decline of populations of this subspecies from the wild (Cameron et al. 2016). Furthermore, the commercial propagation and release of other species of bumble bees (*Bombus impatiens*, *Bombus vosnesenskii*, and *Bombus huntii* in the U.S.) poses a significant threat to all of the species in this petition via amplification and spread of disease and competition, and thus this factor is considered in this petition.

C. Competition with Managed Honey Bees

A single honey bee colony requires substantial resources to survive. Estimates of single hive consumption vary from 20-130 lbs/year for pollen and 45-330 lbs/year of honey – representing 120-900 lbs/year of nectar (Goulson 2003, and references therein). Cane and Tepedino (2016) estimate that in three months a 40 hive apiary would remove enough pollen resources from the surrounding area that would have supported the development of 4,000,000 native bees. Depending on the environment and the density of honey bee hives in an area and the time of year, this could represent a substantial percentage of the resources available and has the potential to affect native bee populations. Recent research has also documented that under controlled conditions honey bees displaced native bees from flowers, altered the suite of flowers that native bees were visiting, and had a negative impact on native bee reproduction (Hudewenz and Klein 2015). The proportion of resources used by honey bees, as well as the effects of this resource depletion on the native bee community are likely to vary by location, the time of year, the species involved, floral abundance and diversity, and climatic and other environmental conditions.

A recent comprehensive review of the effects of managed bees (including honey bees) on native bee populations found that the majority of studies conclude that managed bees have a negative effect on native bees via competition, change in plant community, and disease transmission (Mallinger et al. 2017). Mallinger et al. (2017) also acknowledge the need for additional research investigating the effects of managed bees on bee fitness, as well as population and community level effects. While there remains a need for additional research, there is evidence that honey bees can potentially impact the native bee community by removing the available supplies of pollen and nectar (Anderson & Anderson 1989; Paton 1990, 1996; Wills et al. 1990; Dafni & Shmida 1996; Horskins & Turner 1999; Cane & Tepedino 2016), or by competitively excluding native bees, thus forcing them to switch to other, less abundant, and less rewarding plant species (Wratt 1968; Eickwort & Ginsberg 1980; Pleasants 1981; Ginsberg 1983; Paton 1993; 1996; Buchmann 1996; Horskins & Turner 1999; Dupont et al. 2004; Thomson 2004; Walther-Hellwig et al. 2006; Tepedino et al. 2007; Roubik 2009; Shavit et al. 2009; Hudewenz & Klein 2013; Rogers et al. 2013; but see Butz-Huryn 1997; Steffan-Dewenter & Tscharntke 2000; Minckley et al. 2003) – but none of these studies have addressed population level effects on native bees.

Additional research demonstrates that honey bees are regularly using, and depleting, the most abundant resources in the surrounding environment (Paton 1996; Mallick & Driessen 2009; Shavit et al. 2009), and that upon removal of honey bees, native bees exhibit signs of competitive release by returning to plants that were formerly used by honey bees (Pleasants 1981; Wenner & Thorp 1994; Thorp 1996; Thorp et al. 2000). The long-term implications of this shift in resource use are not entirely clear, although there is a growing body of research on bumble bees that

demonstrates negative competitive effects of honey bees on bumble bees, including lower reproductive success, smaller body size, and changes in bumble bee foraging behavior – notably a reduction in pollen gathering (Evans 2001; Goulson et al. 2002; Thomson 2004; 2006; Paini & Roberts 2005; Walther-Hellwig et al. 2006; Goulson & Sparrow 2009; Elbgami et al. 2014).

Because of the threats mentioned above, one recent review paper concludes that honey bees are inappropriate in protected areas where they pose the biggest threat to wild bee populations (Geldmann and González-Varo 2018); the same could be said for the placement of honey bees near species of conservation concern. In summary, competition with honey bees, along with the threat of disease transmission pose a significant threat to the four petitioned bumble bee species.

D. Disease

1. Pathogens and Parasites of Bumble Bees

The spillover, spillback, and facilitation of infectious diseases from domesticated livestock to wildlife populations is one of the main sources of emerging infectious disease, which pose a major threat to a wide variety of wildlife species (Daszak et al. 2000; Fürst et al. 2014; Graystock et al. 2015a; McMahon et al. 2015), including high profile declines of many bat and amphibian species caused by emerging infectious diseases. While this phenomenon has not been well studied in invertebrates, there is recent evidence of the transmission of pathogens from commercial bumble bees to wild bumble bees and pathogens have been implicated in the decline of both *B. franklini* and *B. occidentalis occidentalis* (Colla et al. 2006; Otterstatter & Thomson 2008; Murray et al. 2013; Graystock et al. 2015a; Cameron et al. 2016). Worldwide, reported pathogens and parasites of bumble bees include: viruses, bacteria, fungi, protozoa, nematodes, hymenopteran and dipteran parasitoids, one lepidopteran parasite, and mites (Acari) (Schmid-Hempel 2001). Pathogen prevalence and fitness effects in wild North American bumble bees are generally not well understood. However, the microparasites and macroparasites that have been identified as pathogens of concern to wild North American bumble bees (Cameron et al. 2011b) are discussed below. Pathogens and parasites pose a substantial threat to the continued survival of all of the species included in this petition.

i. Microparasites

Nosema bombi

Nosema bombi is a microsporidian parasite that infects bumble bees primarily in the malpighian tubules, but also in fat bodies, nerve cells, and sometimes the tracheae (Macfarlane et al. 1995). Colonies can appear to be healthy but still carry *N. bombi* (Larsson 2007) and transmit it to other colonies. *N. bombi* can reduce colony fitness, as well as reduce individual reproduction rate and life span in bumble bees (Schmid-Hempel & Loosli 1998; Schmid-Hempel 2001; Colla et al. 2006; Otti & Schmid-Hempel 2007; 2008; van der Steen 2008; Rutrecht & Brown 2009). This

parasite has been observed recently in wild bumble bees throughout North America (Colla et al. 2006; Gillespie 2010; Cameron et al. 2011a; Kissinger et al. 2011; Cordes et al. 2012).

Cameron et al. (2011a) found a significantly higher prevalence of *N. bombi* in declining North American bumble bee species (*Bombus occidentalis* and *B. pensylvanicus* [American bumble bee]). In the same study, *N. bombi* infection was significantly lower in species that have not exhibited recent declines in range and relative abundance (Cameron et al. 2011a). Blaker et al. (2014) also found an increased prevalence of *N. bombi* in *B. occidentalis* than sympatric species that have not exhibited population declines. These studies indicate that *N. bombi* is a threat to the continued existence of *B. occidentalis*. Since the western bumble bee is host to the Suckley cuckoo bumble bee (Williams et al. 2014) – *N. bombi* is a threat to the continued existence of this species as well.

Nosema ceranae

While the primary disease implicated in recent bumble bee declines is the microsporidian *Nosema bombi*, bumble bees have recently been seen to harbor *Nosema ceranae*, a common disease of honey bees that can be particularly virulent to honey bee colonies, and has been implicated as a factor in Colony Collapse Disorder (Paxton 2010; Fürst et al. 2014). *N. ceranae* has recently been detected in honey bees in Canada, and the United States (Williams et al. 2008b), and more recently been detected in bumble bees in South America (Plischuk et al. 2009) and Europe (Graystock et al. 2013a; Fürst et al. 2014). It is likely only a matter of time until this pathogen is detected in wild bumble bees in North America. Recent studies have shown that *N. ceranae* is easily transferred to bumble bees, and was found in all species of bumble bees tested in Europe (Graystock et al. 2013a). In laboratory experiments, virulence of *N. ceranae* in infected bumble bees was very high, reducing survival by 48% (Graystock et al. 2013a). Graystock et al. (2013a) conclude that *N. ceranae* represents a real and emerging threat to bumblebees, with the potential to have devastating consequences for their already vulnerable populations.

While to our knowledge *N. ceranae* has not been detected in any of the species in this petition, this microsporidian represents a current and potential threat to their populations. Recent studies have shown that pathogen transmission (including *N. ceranae*) between honey bees and bumble bees is readily occurring at flowers (Graystock et al. 2015b) and the range of all bumble bees in this petition overlaps with the range of both feral and managed honey bees. Furthermore, honey bees are both resident and regular migrants throughout the range of all of these bumble bees, thus, there is a clear vector for transmission of *N. ceranae* to all of the bumble bees in this petition. The uncertainty around the effects that this pathogen may have on wild bumble bees deserve further scrutiny and cautionary action; they should not be dismissed as a threat to the continued survival of the species in this petition.

Crithidia species

Crithidia bombi is a trypanosome protozoan that can dramatically reduce bumble bee longevity and colony fitness (Brown et al. 2003; Otterstatter & Whidden 2004), interfere with learning among bumble bee foragers (Otterstatter et al. 2005), increase ovary development in workers (Shykoff & Schmid-Hempel 1991), and decrease pollen loads carried by workers (Shykoff and Schmid-Hempel 1991). In the UK, researchers found a higher prevalence of the pathogen *C. bombi* in bumble bee populations with reduced genetic diversity, suggesting that as populations become smaller and lose heterozygosity, the impact of this parasite will increase (Whitehorn et al. 2011), pushing already at-risk populations closer to extinction. Moreover, there may be a synergistic effect between the effects of pesticides and disease. A recent laboratory study demonstrated that chronic exposure to low, realistic doses of two neonicotinoid insecticides, when combined with a sublethal infection of *C. bombi,* significantly reduced bumble bee queen survival (Fauser-Misslin et al. 2014).

Crithidia expoeki is a recently identified protozoan characterized from bumble bees collected in North America (Alaska) and Switzerland (Schmid-Hempel & Tognazzo 2010) that may also present a serious threat to wild populations of bumble bees. The increasing prevalence of these two species of *Crithidia* is an emerging and increasing threat to the bumble bees included in this petition.

B. occidentalis, the parent species to *B.occidentalis occidentalis* in this petition has been shown to be infected with *Crithidia bombi* (or *C. expoeki*) (Gillespie 2010; Cordes et al. 2012). One additional species in this petition was tested for infection by Cordes et al. (2012), however, because of their extreme rarity in the landscape, collection rates were very low for this species (*B. suckleyi,* N=4) and *C. bombi* was not detected (Cordes et al. 2012). Cordes et al. (2012) found *Crithidia sp.* in all regions of the United States in 15 different bumble bee host species.

Apicystis bombi

Apicystis bombi is a neogregarine protozoa that has been shown to infect 7.4% of American bumble bee queens in Ontario, Canada (Macfarlane et al. 1995). This parasite is associated with rapid death of infected bumble bee queens early in the season (Macfarlane et al. 1995; Rutrecht & Brown 2008). It has also been shown to inhibit ovary development and reduce queen longevity (Rutrecht & Brown 2008). More research is needed to understand causal effects that this parasite has on bumble bees and how this parasite is transmitted. This parasite has been found in commercial bumble bee colonies (Meeus et al. 2011), and researchers suggest that this pathogen may have been introduced from Europe to NW Patagonia, Argentina on commercial bumble bees, potentially causing an observed population collapse in a native bumble bee species (Arbetman et al. 2013; Maharramov et al. 2013). In a study in Mexico, *A. bombi* was the most frequently encountered pathogen in commercial bumble bee colonies (of *Bombus impatiens* - the

species of bumble bee most commercially available in the United States) that were tested for emerging infectious diseases (Sachman-Ruiz et al. 2015). As shown above, because of its virulence, its apparent widespread infection of wild bumble bees throughout North America, and its high prevalence in commercial bumble bees, *A. bombi* poses a serious potential threat to the continued survival of the bumble bees named in this petition.

Apicystis bombi has recently been detected in northern California and Oregon (Kissinger et al. 2011), which is within the current range of all of the species included in this petition, except *Bombus crotchii*. It is notable that in 2006-2007 all species included in this petition and within the range of the study were so rare (or absent) that they were not detected in the surveys by Kissinger et al. (2011). Since this pathogen has a detrimental effect on queens it can directly impact entire colonies of bumble bees. As such, it is a threat to the continued existence of all of the species in this petition.

RNA viruses

RNA viruses that have historically been considered to be specific to honey bees (*Apis mellifera*), including Israeli acute paralysis virus, black queen cell virus, sacbrood virus, Deformed Wing Virus (DWV), and Kashmir bee virus, have been recently detected in wild North American bumble bees foraging near apiaries (Singh et al. 2010). Recent research has emerged that documents the transmission of diseases from managed bees (both European honey bees and commercial bumble bees) to wild pollinators. These studies have demonstrated the threat that RNA viruses pose (Fürst et al. 2014; Manley et al. 2015; McMahon et al. 2015). DWV, which is associated with severe winter losses in honey bees (Highfield et al. 2009), was also detected in bumble bees in Germany, and the infected bumble bees displayed the same deformities that are typical of infected honey bees (Genersch et al. 2006). To understand the extent of the threat to wild bumble bees, the prevalence of these viruses in wild populations of bumble bees, as well as their effects on bumble bee fitness, are in urgent need of further study. While further study is needed, RNA viruses such as DWV have been shown to be virulent to bumble bees, resulting in malformed wings, non-viable offspring, and reduced longevity (Fürst et al. 2014). And, there is a growing body of evidence that RNA viruses can be transmitted between managed bees and wild bees on flowers (Manley et al. 2015).

While most of the recent research has been conducted in Europe, these same pathogens exist within the historic and current range of the bumble bees in this petition, and the pathogen spillover from honey bees and commercial bumble bees poses a significant threat to them. Since honey bees and commercial bumble bees (documented vectors for RNA viruses) are used throughout the United States, and within the range of all four species in this petition, RNA viruses are a clear threat to the continued existence of all of these animals.

ii. Macroparasites

Locustacarus buchneri

Bumble bees are often infected by mites. While many external mites can be relatively benign, many internal mites can be particularly virulent (Plischuk et al. 2013). This includes *Locustacarus buchneri*, a species that parasitizes the trachea of bumble bees (Husband & Shina 1970). *L. buchneri* is associated with reduced foraging and lethargic behavior (Husband & Shina 1970) and a significantly reduced lifespan in male bumble bees (Otterstatter & Whidden 2004). Otterstatter and Whidden (2004) reported that this mite was most prevalent in bumble bees of the subgenus *Bombus sensu stricto* (*B. occidentalis, B. moderatus, B. terricola*) in a study in southwestern Alberta. The internal mite was also reported in *B. bellicosus* and one of *B. atratus* (both in the subgenus *Thoracobombus*) from Argentina (Plischuk et al. 2013) and from the majority of populations of *B. jonellus* (subgenus *Pyrobombus*) and *B. muscorum* (subgenus *Thoracobombus*) in the United Kingdom (Whitehorn et al. 2014). Significantly, populations in this study that had high infection rates of *L. Buchneri* also had lower genetic diversity than populations that were not infected (Whitehorn et al. 2014). This suggests that small populations that may already be suffering from reduced genetic diversity may be particularly susceptible to this tracheal mite. Importantly *L. buchneri* was also detected in commercial *Bombus impatiens* colonies found in greenhouses in Mexico (Sachman-Ruiz et al. 2015) suggesting that commercial bumble bees may be a source of this tracheal mite for wild bumble bees. The presence of this mite in commercial bumble bee colonies in North America (Mexico), and the apparent susceptibility of populations with reduced genetic diversity to infection, suggest that this macroparasite is a threat to the continued existence of the four petitioned bumble bee species.

Sphaerularia bombi

Sphaerularia bombi is an entomopathogenic nematode that infects hibernating bumble bee queens and sterilizes them (Schmid-Hempel 2001). In a literature review, Macfarlane et al. (1995) notes that bumble bee queens infected with this parasite in New Zealand colonized new areas at a rate of less than 1% of that of healthy queens. Infected queens do not initiate a nest, but do continue to visit flowers (Kadoya & Ishii 2015). Because queens are foraging later in the summer there is evidence that through manipulation of behavior infected queens can negatively affect uninfected workers of conspecific and sympatric *Bombus* species through competition (Kadoya & Ishii 2015). This parasite has been detected in 16 species in North America (Macfarlane et al. 1995; Maxfield-Taylor et al. 2011), and may pose a threat to the long-term survival of the species in this petition.

2. Pathogen Spillover

The spread of pathogens to bumble bees from the domesticated common eastern bumble bee (*Bombus impatiens*) and other species of bumble bees that are currently being developed for commercial use threatens the species included in this petition with extinction. In addition, RNA

viruses from the domesticated honey bee (*Apis mellifera*) can be transmitted to bumble bees at shared flowers (Singh et al. 2010; Graystock et al. 2015a, 2015b; Manley et al. 2015; McMahon et al. 2015), and pose a novel threat to bumble bees.

i. Commercial Bumble Bees

The dramatic decline in numerous species of North American bumble bees, including *B. franklini* and *B. occidentalis occidentalis* has been attributed to pathogen infection from managed bumble bees (Evans et al. 2008; Thorp 2005c). Robbin Thorp first developed the hypothesis that an exotic strain of the fungal pathogen *Nosema bombi* escaped from commercial bumble bee rearing operations in the late 1990s and subsequently spread to wild populations of bumble bees in the subgenus *Bombus* (including *B. occidentalis*, *B. franklini*, *B. affinis*, and *B. terricola*) (Thorp 2005c). This hypothesis was supported by the timing, speed and severity of declines observed in wild populations of *B. occidentalis* and *B. franklini*, coincident with reports by commercial producers of *N. bombi* outbreaks in their facilities (Flanders et al. 2003). Cameron et al. (2016) tested Thorp's hypothesis and found that although the prevalence of *Nosema bombi* increased in bumble bees during the 1990s - the same time period that researchers reported that *B. occidentalis* and *B. franklini* were disappearing in the wild – they did not find evidence that an exotic strain of this pathogen was introduced to the U.S.

Commercial bumble bees are used primarily to pollinate greenhouse tomatoes, and increasingly to pollinate a wide variety of other greenhouse and open field vegetable and fruit crops in the US and worldwide (Velthius & Van Doorn 2006; Koppert Biological Systems 2018), though California only permits commercial bumble bees to be imported into the state for greenhouse use. The commercial bumble bee industry has grown dramatically in the past two decades (Velthius & Van Doorn 2006), coincident with the growth of the greenhouse tomato industry. In 2004 55,000 colonies of the common eastern bumble bee (*Bombus impatiens*) were commercially reared in the United States, and nearly 1,000,000 colonies were produced world-wide (Velthius & Van Doorn 2006) and demand is ever increasing (Sachman-Ruiz et al. 2015). Commercial bumble bees often escape greenhouses to forage on nearby plants (Whittington et al. 2004; Morandin et al. 2001), where they interact with wild bumble bees and have the opportunity to transmit pathogens at shared flowers. Commercially raised bumble bees frequently harbor high pathogen loads (Goka et al. 2000; Whittington & Winston 2003; Niwa et al. 2004; Colla et al. 2006; Graystock et al. 2013b) and the spillover of pathogens from commercial bumble bees in greenhouses to wild, native bumble bees foraging near greenhouses has been documented (Colla et al. 2006; Goka et al. 2006; Otterstatter & Thomson 2008; Graystock et al. 2014). Moreover, recent analysis has shown that many of the pathogens transmitted from commercial colonies are virulent to bumble bees (Graystock et al. 2013b).

Commercially reared bumble bees frequently harbor significantly more pathogens than their wild counterparts and their escape from greenhouses leads to infections in nearby wild native species

(Colla et al. 2006). In fact, Colla et al. (2006) found that bumble bees far away from greenhouses had zero *Crithidia bombi* infections, while their counterparts found close to greenhouses had infection rates of 5.3% – 75%. An additional study demonstrated that commercial bumble bees in greenhouses regularly escape greenhouses; 73% of the pollen found on bumble bees within a greenhouse originated from plants outside of the greenhouse (Whittington et al. 2004). A more recent study in the UK found that three bumble bee pathogens (*Nosema ceranae, Apicystis bombi*, and *Crithidia bombi*) were more prevalent around greenhouses using commercially produced bumble bees (Graystock et al. 2014). Notably this study also found that the species of bumble bee did not affect infection rates, indicating that these two pathogens infect all species equally, and that the presence of commercial bumble bees was the best measured predictor of infection rates (Graystock et al. 2014). Bumble bee diseases can be spread from bee to bee at shared flowers (Gorbunov 1987; Lipa & Triggiani 1988; Graystock et al. 2015a; 2015b).

Meeus et al. (2011) reviewed the effects of invasive parasites on bumble bee declines. They report that the commercial production of bumble bees has the potential to lead to bumble bee declines in three ways: commercial colonies may have high parasite loads, which could then infect wild bumble bee populations; commercial production may allow higher parasite virulence to evolve, leading to the introduction of parasites that are potentially more harmful to wild bumble bees than naturally occurring parasites; and the global transport of commercial bumble bees can introduce novel parasites to which resident, native bumble bees have not adapted. Pathogens reported from commercial bumble bee colonies worldwide include: *Apicystis bombi*, *Crithidia bombi*, *Locustacarus buchneri*, *Nosema bombi*, Black Queen Cell Virus (BQCV), Deformed Wing Virus (DWV), Israeli Acute Paralysis Virus (IAPV), and Kashmir Bee Virus (KBV) (Meeus et al. 2011). Commercial bumble bee colonies in North America have tested positive for *Crithidia bombi*, *Nosema bombi*, *Locustacarus buchneri*, DWV, BQCV, Sacbrood Virus (SBV) (Morkeski & Averill 2012; Averill unpublished data), and IAPV (Singh et al. 2010).

When tested, commercial bumble bee colonies in the U.S. have repeatedly been found to harbor parasites and pathogens harmful to wild bees (reviewed in Graystock et al. 2015a). In 2010, Morkeski and Averill reported results from testing bumble bees from the commercial vendors Koppert Biological Systems and BioBest. They found the commercially reared bumble bees were infected with *N. bombi, C. bombi, L. buchneri*, and viruses that also affect honey bees, including DWV and BQCV. Averill (unpublished data) also reported that commercial bumble bee colonies have tested positive for SBV. Singh et al. (2010) reported that commercial bumble bee colonies tested positive for IAPV. Furthermore, a recent study of commercially produced bumble bees (*Bombus impatiens*) in Mexico found that the colonies were infected with *L. buchneri*, *N. bombi*, Acute Bee Paralysis Virus (ABPV), Chronic Bee Paralysis Virus (CBPV), DWV, IAPV and KBV (Sachman-Ruiz et al. 2015). Since *B. impatiens* is native to the eastern

U.S. and Canada but not native to Mexico, and used in commercial bumble bee rearing facilities in both the U.S. and Canada, it is likely that these pathogens originated in rearing facilities in either the U.S. or Canada, and may also occur in managed bumble bee colonies in these two countries.

Examples from multiple continents exist demonstrating that pathogens from managed bumble bees can spread to wild bumble bees with catastrophic results (Graystock et al. 2015a). In South America, the commercial buff-tailed bumble bee (*Bombus terrestris*) was first introduced into Chile from Europe in 2006 and has since spread to Argentina (Morales et al. 2013; Schmid-Hempel et al. 2014). Researchers suggest that the highly pathogenic *Apicystis bombi* hitchhiked on the commercial bumble bees and spread to wild bumble bees, potentially causing the observed population collapse in the world's largest native bumble bee – *Bombus dahlbomii* (Arbetman et al. 2013; Schmid-Hempel et al. 2014). Indeed, scientists have found that wherever *B. terrestris* invades, the native bumble bee species disappears (Morales et al. 2013; Schmid-Hempel et al. 2014). In Japan, researchers found that commercially raised bumble bees had a higher infestation rate of the tracheal mite *L. buchneri* than wild bumble bees. Their findings also suggested that a European strain of this mite has likely invaded native Japanese bumble bee populations and may help explain its decline (Yoneda et al. 2008; Goka 2010; Graystock et al. 2015a). In Canada, higher levels of the protozoan parasite *Crithidia bombi* were detected in wild bumble bees foraging near greenhouses that used commercial bumble bees (Colla et al. 2006; Otterstatter & Thomson 2008), and it was suggested that this pathogen may be implicated in the sudden, widespread decline observed in North American bumble bees in the subgenus *Bombus sensu stricto* (Otterstatter & Thomson 2008). However, a more recent analysis of pathogen prevalence in wild bumble bees did not find evidence that *Crithidia* infections are involved in the decline of U.S. bumble bee species (Cordes et al. 2012).

In other regions of the world—where the two major North American bumble bee producers also operate—commercial bumble bee colonies have been more widely tested and have routinely been found to be infected with numerous parasites and pathogens, including: *Apicystis bombi*, *Crithidia bombi*, *Nosema bombi*, *N. ceranae*, DWV, and three honey bee specific parasites (Graystock et al. 2013b; Meeus et al. 2011; Murray et al. 2013; Sachman-Ruiz et al. 2015). In a 2013 European study, scientists tested commercially produced bees imported into the UK. Although the bees were sold as "disease-free," the scientists found that 77 percent of the colonies tested were infected with at least five parasites and an additional three parasites were present in pollen that was supplied as food for the bumble bee colonies (Graystock et al. 2013b).

Should non-native *Bombus impatiens*, which California currently allows to be imported for greenhouse use only, escape greenhouses, the pathogens they harbor may pose a risk to wild bumble bees, including the four species included in this petition.

ii. Honey Bees

In addition to competitive effects listed above, honey bees may pose a risk to the four bumble bees listed in this petition by transmitting pathogens to them. Recent evidence has emerged demonstrating that honey bees can transmit diseases to many different species of native bees, including bumble bees, when they interact at shared flowers (Singh et al. 2010; Fürst et al. 2014). Bumble bees placed close to honey bee hives were found to have an 18% higher prevalence of *Crithidia bombi*, than bumble bees placed away from honey bees (Graystock et al. 2014). A number of RNA viruses that were formerly thought to be specific to honey bees have now been reported to infect bumble bees (Genersch et al. 2006; Morkeski & Averill 2010; Singh et al. 2010; Meeus et al. 2011; Evison et al. 2012; and see RNA Viruses in section D: Diseases above). In addition, while the primary disease implicated in recent bumble bee declines is the microsporidian *Nosema bombi*, bumble bees have recently been seen to harbor *Nosema ceranae*, a common disease of honey bees that can be particularly virulent to honey bee colonies, and has been implicated as a factor in Colony Collapse Disorder (Paxton 2010; Fürst et al. 2014; and see *Nosema ceranae* in section D: Diseases above.).

Two recent review papers that investigated disease transmission between managed (including honey bees and commercial bumble bees) and wild bees concluded that the commercial use of pollinators is a key driver of emerging disease in wild pollinators, and that avoiding anthropogenic induced pathogen spillover is crucial to preventing disease emergence in native pollinators (Graystock et al. 2015a; Manley et al. 2015). To help mediate this potential, the authors suggest that it is crucial to prevent wild bees from interacting with managed bees (Graystock et al. 2015a; Manley et al. 2015). Graystock et al. (2015b) also documented that pathogen transmission occurs between bumble bees and honey bees at shared flowers, showing a clear mechanism and vector for infection. Since small, fragmented, and declining populations are especially susceptible to infectious disease (Fürst et al. 2014), and disease is already implicated as a likely causal factor of some native bee declines in North America (Cameron et al. 2011b), this emerging body of research suggests that caution should be exercised when considering the placement of managed bees of any species in habitat that supports vulnerable or declining native bee populations or that strict regulations should be implemented that include regular screening and clear actions for diseased managed bees to prevent further infection (Graystock et al. 2015a).

The continental distribution, transport, and use of commercially reared honey bees throughout the United States presents a clear vector for disease transmission to the four species of bumble bees included in this petition. Several of the diseases harbored by honey bees have been shown to be pathogenic and virulent to bumble bees, posing a significant risk. Since the populations of the bumble bee species included in this petition are already small and fragmented, any further stressor threatens each species with local extirpation, and perhaps extinction. As such, continued unrestricted use of commercial honey bees poses a threat to the continued existence of each

species included in this petition.

E. Other Natural Events or Human-related Activities

1. Pesticides

Pesticides are used widely in agricultural, urban, and even natural areas and can exert both direct effects (lethal and sublethal) and indirect effects (harm via the effect on another species) on bumble bees. Foraging bumble bees can be poisoned by pesticides when they absorb toxic substances directly through their exoskeleton, drink contaminated nectar, gather contaminated pollen, or when larvae consume contaminated pollen. Because bumble bees nest in the ground, they may be uniquely susceptible to pesticides used on lawns or turf (National Research Council 2007). Pesticides applied in the spring, when bumble bee queens are foraging and colonies are small, are likely to be most detrimental to bumble bee populations (Goulson et al. 2008; Stoner 2016). Since males and queens are produced at the end of the colony cycle, sublethal doses of pesticides applied at any time during the bumble bee lifecycle can have substantial adverse effects on subsequent generations. Any application of pesticides can threaten bumble bees, but pesticide drift from aerial spraying can be particularly harmful. One study demonstrated that 80% of foraging bees close to the source of an insecticide application were killed, and drift can continue to be dangerous for well over a mile from the spray site (Johansen and Mayer 1990). In Europe, the recent declines in bumble bees have been partially attributed to the use of pesticides (Williams 1986; Thompson and Hunt 1999; Rasmont et al. 2006).

Bumble bees are threatened by the widespread use of pesticides across their range. Insecticides are designed to kill insects directly and herbicides can indirectly affect bumble bees by removing floral resources (see Section A.2: The Loss of Habitat Due to Increased Use of Herbicides). There is very little data available on the effect of fungicides on bumble bees, although a growing body of evidence suggests fungicides may be linked with sublethal concerns including weakening the immune system of bumble bees. Below, we outline the threats posed to bumble bee populations by insecticides and fungicides.

i. Insecticides

Of the various pesticide groups, insecticides are most likely to directly harm bees. Many commonly used insecticides are broad spectrum and thus could kill or otherwise harm exposed bumble bees. Systemic insecticides, such as neonicotinoids, have the added concern of causing exposure months to years after a treatment as they are taken up by the plant and expressed in the pollen, nectar and leaves. Extensive research into the effects of neonicotinoids has been performed. Below is a brief summary of a subset of this body of research.

<u>Neonicotinoids</u>

Neonicotinoids are a relatively new class of systemic insecticides that are used widely to combat

insect pests of agricultural crops, turfgrass, gardens, and pets (Cox 2001). Colla & Packer (2008) suggested that neonicotinoids may be one of the factors responsible for the decline of the rusty patched bumble bee (*Bombus affinis*; recently listed as an Endangered species under the U.S. Endangered Species Act), noting the use of this class of insecticides began in the U.S. in the early 1990s, shortly before the decline of the rusty patched bumble bee was first observed.

A recent study exposing bumble bees to field-realistic levels of the neonicotinoid imidacloprid found an 85% reduction in the production of new queens and significantly reduced colony growth rates compared to control colonies (Whitehorn et al. 2011). The authors suggest that neonicotinoids "may be having a considerable negative impact on wild bumble bee populations across the developed world" (Whitehorn et al. 2011). Another study of bumble bees exposed to varying levels of imidacloprid found a dose-dependent decline in fecundity and documented that field realistic levels of this pesticide were capable of reducing brood production by one-third (Laycock et al. 2012). The authors speculate that this decline in fecundity is a result of individual bumble bees failing to feed, which raises concerns about the impact of this pesticide on wild bumble bees (Laycock et al. 2012). In another study (Fauser et al. 2017) the researchers found that early lifestage exposure to low dose, field realistic levels of thiamethoxam and its metabolite clothianidin significantly reduced the survival of hibernating queens. Other toxicity studies have demonstrated that contact exposure of imidacloprid and clothianidin to bumble bees can be very harmful (Marletto et al. 2003; Gradish et al. 2009; Scott-Dupree et al. 2009), and an acute oral dose of imidacloprid is highly toxic to bumble bees (Marletto et al. 2003, *In* Hopwood et al. 2016). Mommaerts et al. (2010) found that chronic exposure of three neonicotinoids to bumble bees was dose dependent, and another study by Incerti et al. (2003) found that one third of bumble bees in a flight cage exposed to blooming cucumbers treated with a "field dose" of imidacloprid died within 48 hours (*In* Hopwood et al. 2016). A study by Gill et al. (2012) examining the effects of the combined exposure of bumble bees to field realistic levels of two pesticides – an imidacloprid and a pyrethroid – found that foraging behavior was impaired, worker mortality increased, and both brood development and colony success were significantly reduced.

Other studies have also documented sublethal effects of neonicotinoids on bumble bees, including: reduced foraging ability (Morandin & Winston 2003; Stanley et al. 2016); reduced drone production and longer foraging times (Mommaerts et al. 2010; Arce et al. 2016; Stanley et al. 2016); reduced foraging activity, reduced food storage and reduced adult survival (Al-Jabr 1999); and lower worker survival and reduced brood production (Tasei et al. 2000; Fauser-Misslin et al. 2014; *In* Hopwood et al. 2016). Studies have also shown that neonicotinoid exposures can lead to impaired learning and memory (Stanley et al 2015a) as well as impaired crop pollination services (Stanley et al. 2015b). Bumble bees appear to be affected by dietary concentrations of the systemic insecticide imidacloprid at levels lower than honey bees, perhaps

because, unlike honey bees, bumble bees do not metabolically degrade imidacloprid effectively while continuing to ingest it (Cresswell et al. 2014; *In* Hopwood et al. 2016).

Neonicotinoids are widely used on agricultural crops that are attractive to pollinators, as well as on horticultural plants and lawns in urban and suburban areas. Thus, this class of insecticide is likely to affect all bumble bees, which were historically found in all of these landscapes. Of particular concern is a finding in a recent review of the impact of neonicotinoid pesticides on pollinating insects which found that some products approved for home and garden use may be applied to ornamental and landscape plants at significantly higher concentrations (as much as 120 times higher) than the allowable concentration of the similar products applied on agricultural crops (Hopwood et al. 2016).

Nitroguanidine neonicotinoids (clothianidin, dinotefuran, imidacloprid and thiamethoxam) are highly toxic to bumble bees and their use has dramatically increased over the last 20 years (USGS 2017c), especially in California's Central Valley, where *B. crotchii* and *B. o. occidentalis* occur. In fact, imidacloprid is the fourth most commonly used insecticide in California, with reported uses on more than 140 crops and other non-crop locations. Its use has increased from 5,179 pounds (658 applications) in 1994 to 441,304 pounds (70,054 applications) in 2015. While not as commonly used as imidacloprid, the other neonicotinoids are also becoming more widely used. For example, thiamethoxam use has increased from 11,090 pounds (2,826 applications) in 2002 when it was first used in California, to 41,908 pounds (26,932 applications) of reported use in 2015 (CA DPR 2014). Throughout the U.S., nitroguanidine neonicotinoids were used to some degree for agricultural purposes in 94% (2,930 out of 3,109) of counties in the lower 48 states (the states for which this study collected data) in 2012 (Baker & Stone 2015). This level of use suggests that there are very few large refuges left in the country for bumble bees to access insecticide free forage – which is necessary to avoid the lethal, and sub-lethal effects of these toxic substances. As such neonicotinoid insecticides pose a direct threat to the continued existence of the bumble bee species included in this petition. Other insecticides, including new systemic insecticides, may also jeopardize these species. Standardized testing completed for registration demonstrates moderate to high toxicity for most insecticides to terrestrial insects. Still, significantly less data is available on sub-lethal effects and field realistic impacts.

ii. Fungicides

A growing body of research demonstrates how some fungicides, especially the multi-site contact activity fungicides like chlorothalonil and the ergosterol inhibiting fungicides (like tebuconazole) can harm bees, including bumble bees. McArt et al. (2017) found that fungicide usage was the strongest predictor of range contractions for four declining bumble bees and that one particular fungicide, chlorothalonil was more closely associated with prevalence of the pathogen *Nosema bombi*--an infection that was about twenty times higher in declining versus stable bumble bee species. Bernauer et al. (2015) found that bumble bees exposed to chlorothalonil produced fewer

workers, lower total bee biomass, and had lighter mother queens than control colonies. Sprayberry et al. (2013) determined that the presence of the fungicide product Manzate (active ingredient mancozeb) decreased bumble bees' ability to locate food within a maze. Bartlewicz et al. (2016) document negative impacts of fungicides on microflora, particularly yeasts, in nectar, that could affect pollinator gut microbiota. As in humans, gut microbial communities affect nutritional health, development, detoxification abilities, and parasite susceptibility (Kwong and Moran 2016; Schwarz et al. 2016). A review of research into the combined effects of pesticides on honey bees found ergosterol inhibiting fungicides significantly contribute to the spread and abundance of honey bee pathogens and parasites (Sánchez -Bayo et al. 2016). The authors also stated that these same concerns are likely to exist for bumble bees and many other wild insects. Contrary to the above mentioned studies, one literature review suggests that most active ingredients in fungicides are compatible with commercial bumble bees (Mommaerts & Smagghe 2011).

In summary, the evidence presented above shows clearly that 1) pesticides, particularly nitroguanidine neonicotinoid insecticides, are highly toxic to bumble bees and exhibit both lethal and sub-lethal effects on bumble bee populations; and 2) the use of pesticides is widespread and pervasive throughout the range of all of the species listed in this petition; As such, pesticides pose a direct threat to the continued existence of each species included in this petition.

2. Population Dynamics and Structure

Bumble bees may be more vulnerable to extinction than other species due to their unique system of reproduction (haplodiploidy with single locus complementary sex determination) (Zayed and Packer 2005; reviewed in Zayed 2009). Therefore, reduced genetic diversity resulting from any of the threats summarized in this petition can be particularly concerning for bumble bees since genetic diversity already tends to be low in this group due to the colonial life cycle (i.e., even large numbers of bumble bees may represent only one or a few queens) (Goulson 2010; Hatfield et al. 2012; but see Cameron et al. 2011a and Lozier et al. 2011). Since the bumble bees listed in this petition have undergone dramatic declines in range and relative abundance (Kevan 2008; Hatfield et al. 2015a; 2015c; unpublished data).), genetic factors (including reduced genetic diversity, inbreeding depression, and the method of sex determination utilized by bumble bees) are likely among the most significant threats to the long-term survival of these species (reviewed in Zayed 2009).

i. Impacts of Genetic Factors on Bumble Bees

Recent research indicates that populations of the declining western bumble bee (*Bombus occidentalis*) have lower genetic diversity compared to populations of co-occurring stable species (Cameron et al. 2011a; Lozier et al. 2011). It is reasonable to expect that the other three species of bumble bees in this petition may have suffered a similar loss of genetic diversity and increase in population structure, although this has not been examined directly.

Loss of genetic diversity, which is frequently the result of inbreeding or random drift, can pose significant threats to small, isolated populations of bumble bees (Whitehorn et al. 2009). A loss of genetic diversity limits the ability of a population to adapt and reproduce when the environment changes and can lead to an increased susceptibility to pathogens (Altizer et al. 2003).

Bumble bees have a single locus complementary sex determination system, meaning that the gender of an individual bee is determined by the number of unique alleles at the sex-determining locus (van Wilgenburg et al. 2006). Normally this gender determination comes through a haplodiploid genetic structure in which female bees are diploids and are produced from fertilized eggs with two different copies of an allele at the sex-determining locus. Most male bees are haploid, and they are produced from unfertilized eggs (with only a single copy of an allele at the sex-determining locus). However, when closely related bumble bees mate, the offspring can have two copies of the exact same allele (or be homozygous) at the sex-determining locus, which causes a diploid male to be produced instead of a diploid female. These diploid males may have reduced viability or may be sterile (van Wilgenburg et al. 2006). When diploid males are able to mate, they produce sterile triploid offspring, which has been found to be negatively correlated with surrogates of bumble bee population size (Darvill et al. 2012). Diploid males are produced at the expense of female workers and new queens, and the production of diploid males can reduce colony fitness (including slower growth rates, lower survival, and colonies that produce fewer offspring) in bumble bees (Whitehorn et al. 2009). Diploid male production in inbred populations can substantially increase the risk of extinction in bumble bee populations compared to other animal taxa (Zayed & Packer 2005).

Inbreeding and loss of genetic diversity can also increase parasite prevalence in populations and parasite susceptibility in individuals (Frankham et al. 2010 *in* Whitehorn et al. 2011). Populations of bumble bees with low genetic diversity have been found to have a higher prevalence of pathogens (Cameron et al. 2011a; Whitehorn et al. 2011; 2014), suggesting that as populations lose genetic diversity, the impact of parasitism will increase and threatened populations will become more prone to extinction.

In summary, the unique method of sex determination, along with the fact that small populations have lower genetic diversity make bumble bees highly susceptible to extinction and thus a rapid extinction vortex that is not experienced in other animals (Zayed & Packer 2005). As such, bumble bees are perhaps more at-risk of extinction than non-haplodiploid animals of similar population size and the threshold for action should necessarily be more conservative.

3. Global Climate Change

Climate change may pose a significant threat to the continued survival of the bumble bees listed

in this petition. Changes to the climate that are expected to have the most significant effects on bumble bee populations include: increased temperature and precipitation, increased drought, increased variability in temperature and precipitation extremes, early snow melt, and late frost events. These changes may lead to increased pathogen pressure, decreased resource availability (both floral resources and hibernacula), and a decrease in nesting habitat availability due to changes in rodent abundance or distribution (Cameron et al. 2011b).

Variability in climate can lead to phenological asynchrony between bumble bees and the plants they use (Memmott et al. 2007; Thomson 2010). There is evidence of mismatch between early blooming plants and their bumble bee pollinators (Kudo et al. 2004). Early spring is a critical time for bumble bees since that is the time when the foundresses emerge from hibernation and initiate nests. Since bumble bees are generalist foragers, they do not require synchrony with a specific plant, but asynchrony could lead to diminished resource availability at times that are critical to bumble bee colony success. For example, as the climate in the Rocky Mountains has become warmer and drier in the past 30 years, researchers have observed a mid-season period of low floral resources, a change which can negatively impact pollinators (Aldridge et al. 2011). Furthermore, changes in the distributions of plants visited by bumble bees have been correlated with a changing climate (Inouye 2008; Forrest et al. 2010). There is further evidence that this shift in climate has led to altered bumble bee morphology by reducing the tongue length of bumble bees in response to the changed availability of food plants (Miller-Struttmann et al. 2015). The effects of this shift on bumble bee populations, or native plant populations – which have not experienced a concordant shift in morphology (Miller-Struttmann et al. 2015) – needs further investigation. However, if long-tongued bumble bees like the American bumble bee (*Bombus pensylvanicus*, which occurs in California) are getting shorter tongues, this will lead to increased competition with shorter tongued bees (like *B. occidentalis occidentalis* and *B. crotchii*—included in this petition) for food plants as there will be greater niche overlap.

In modeling studies, Kirilenko and Hanley (2007a; 2007b) predict that the ranges of three bumble bee species will change in size and shift in response to predicted changes in the North American climate. In a more recent study Kerr et al. (2015) found that as the climate warms in North America that the southern range of bumble bees is contracting, while at the same time there is no evidence that populations are moving northward. The reason that bumble bees are not responding to this climactic cue by moving northward is unknown, but has dramatic implications for bumble bees; it suggests that range contraction from the south is a severe threat to the continued existence of North America's bumble bees. Other research in Europe has suggested that bumble bees are particularly susceptible to heat waves, and other effects of a changing climate (Rasmont & Iserbyt 2012). In California, increasing aridity may be particularly detrimental for *B. franklini* since this species has a very narrow climatic specialization compared to most bumble bees (NatureServe 2017a).

Climate change can also affect the quality of nectar produced by flowers. Pumpkin flowers grown under experimental conditions mimicking predicted climate futures were altered in attractiveness and nutritional quality (Hoover et al. 2012). Bumble bees foraging on these plants suffered a 22% reduction in survival. Although this study was based on predicted future conditions, similar effects may be occurring presently at levels that are undetected but may still affect bumble bee populations.

In summary, there is evidence that a shifting climate is 1) altering the timing of food plant availability for bumble bees; 2) changing the morphology of bumble bee mouth parts in response to food-plant availability; 3) reducing the habitable area of bumble bees in the southern portion of their ranges without a concordant range expansion to the north; and 4) altering the quality of food plants. Each of these landscape scale factors threaten the four bumble bee species included in this petition.

4. Loss of Host Species - Co-Extinction

One species included in this petition is in the subgenus *Psithyrus* (cuckoo bumble bees - Suckley cuckoo bumble bee [*Bombus suckleyi*]), which means that it is dependent on a bumble bee host species for its life-cycle; thus the disappearance, or increasing rarity of that host would represent a threat to species existence. This relationship was recently examined by Suhonen et al. (2015), who found that cuckoo bumble bees were more vulnerable to extinction than their host species. Unsurprisingly, the conclusions of this research were that the conservation of the host species for these animals was essential to the short and long-term persistence of cuckoo bumble bees (Suhonen et al. 2015).

The cuckoo bumble bee included in this petition is dependent on bumble bees that have recently documented range declines. *B. suckleyi* uses *B. occidentalis occidentalis* and the yellow banded bumble bee (*B. terricola*) as hosts (Williams et al. 2014) - both of which have been identified as in decline by recent research (Evans et al. 2008; Cameron et al. 2011b; Hatfield et al. unpublished data). The continued decline of the host species is a severe and permanent threat to the continued existence of this cuckoo bumble bee. The host species (*B. o. occidentalis*) mentioned above is included in this petition to be listed as an endangered species.

VI. DEGREE AND IMMEDIACY OF THREAT

Bumble bees, as a whole, are threatened by a number of factors discussed above in section V, including agricultural intensification, habitat loss and degradation, pesticide use, pathogens from managed pollinators, competition with non-native bees, climate change, genetic factors, and loss of host species (reviewed *in* Goulson 2010; Williams et al. 2009; Williams and Osborne 2009; Cameron et al. 2011b; Hatfield et al. 2012; Fürst et al. 2014). The magnitude of loss and rate of

decline that each of these species have experienced is outlined above in section II. Current regulations and regulatory mechanisms are inadequate to protect these species of bumble bees against the threats they face within California. Without protective measures, *Bombus crotchii, B. franklini, B. suckleyi,* and *B. occidentalis occidentalis* are likely to go extinct in California.

VII. IMPACT OF EXISTING MANAGEMENT EFFORTS

Currently none of the four species included in this petition receive substantive protection under federal law or California state law. None have legal protection under the U.S. Endangered Species Act. No known specific management actions, recovery plans, or research in the state of California have been implemented for any of these species. California Department of Fish and Wildlife lists all four bumble bees included in this petition on their "Special Animals List". In addition, *Bombus occidentalis* is listed as a "Sensitive Species" by the US Forest Service in California (USFS 2013); thus the Forest Service will consider this species when implementing any management actions proposed in the forests where this species occurs.

Below, we list the known candidate status or special status, if any, for each species.

Crotch Bumble Bee (*Bombus crotchii*)

Bombus crotchii is on the "Special Animals List" of the California Department of Fish and Wildlife (CDFW 2017) and is listed as Endangered by the IUCN Red List of endangered species (Hatfield et al. 2015a). The species has a NatureServe Global Status rank of G3G4 (Vulnerable/Apparently Secure) and a state rank of S1S2 in California (NatureServe 2017a). Although *B. crotchii* is widely recognized as a vulnerable species, it receives no formal or informal protection.

Franklin's bumble bee (*Bombus franklini*)

Until 1996, the U.S. Fish and Wildlife Service classed *Bombus franklini* as a "Category 2" Candidate Species which indicates that listing may be warranted, but not enough information was known to federally list the species. This status was based on the recognition of the narrow endemism of the species and the lack of knowledge on the specific biological characteristics, habitat requirements, potential threats to its existence, and other critical parameters that affect the persistence and viability of its populations. In 2010, this species was petitioned for endangered species status, has received a positive 90-day finding, and is currently the focus of a Species Status Assessment by USFWS to determine if the species warrants ESA listing (USFWS 2011).

B. franklini is included on the California Department of Fish and Wildlife "Special Animals List" (CDFW 2017). The species has a NatureServe Global Status rank of G1 (Critically Imperiled), and has a state rank of S1 (Critically Imperiled) in both Oregon and California (NatureServe 2017b). It is listed as Critically Endangered on the IUCN Red List (Kevan 2008)

and critically imperiled on the *Red List of Pollinator Insects of North America*, produced by the Xerces Society for Invertebrate Conservation (Thorp 2005c). Although *B. franklini* is widely recognized as a vulnerable species, it receives no formal or informal protection.

Western bumble bee (*Bombus occidentalis occidentalis*)

Bombus occidentalis occidentalis is on the "Special Animal List" of the California Department of Fish and Wildlife (CDFW 2017) and is listed as a "Sensitive Species" by the US Forest Service in California, where it has been documented on the following National Forests: Eldorado, Klamath, Lassen, Modoc, Plumas, Shasta-Trinity, Six Rivers, Tahoe, and Lake Tahoe (USFS 2013). The subspecies has a NatureServe Global Status rank of G4T1T3 (Apparently Secure/"T1T3 is assigned because the subspecies has almost certainly declined by more than 95% since 1998 and is not secure") and SNR (Unranked) in California (NatureServe 2017c); the parent species *B. occidentalis* is ranked S1 (Critically Imperiled) in California (NatureServe 2017d). An IUCN Red List category has not yet been formally assigned for the southern subspecies of the western bumble bee (*B. occidentalis occidentalis*), but the full species (*B. occidentalis*) is listed as Vulnerable to extinction on the IUCN Red List (Hatfield et al. 2015b), and an analysis of changes in range and relative abundance of *B. o. occidentalis* suggest that the species would meet the criteria of Endangered on the IUCN Red List (Hatfield et al., unpublished data). The parent species *B. occidentalis* has been petitioned for endangered species status, has received a positive 90-day finding, and is currently the focus of a Species Status Assessment by the USFWS to determine if the species warrants ESA listing (USFWS 2016). Though this species receives no formal protection, any conservation or management actions implemented due to its "Sensitive Species" status on National Forests in California may provide some benefit to this species.

Suckley bumble bee (*Bombus suckleyi*)

Bombus suckleyi is on the "Special Animal List" of the California Department of Fish and Wildlife (CDFW 2017) and was listed as Critically Endangered by the IUCN Red List of endangered species (Hatfield et al. 2015c). The species has a NatureServe Global Status rank of G1G3 (Critically Imperiled/Vulnerable; the rank changed from GU to "G1G3?" to highlight the recognized major decline but uncertainty about its status in the most northern section of its range) and a state rank of S1 (Critically Imperiled) in California (NatureServe 2017e).

Restoration of Bee Habitat in California

Currently, extensive efforts exist to restore habitat for pollinators near insect-pollinated crops in California, especially in the agriculturally intensive Central Valley. These efforts have the potential to provide resources that will benefit the petitioned bumble bee species – especially *B. crotchii* and *B. occidentalis occidentalis*, which occur or historically occurred in parts of the Central Valley. The petitioners recommend that, should these bumble bees be protected under

California's Endangered Species Act, this listing should not hinder efforts to restore bee habitat. As such, a programmatic Safe Harbor agreement should be developed between CDFW and the NRCS, so that private landowners enrolled in Farm Bill incentive programs will not be discouraged from restoring pollinator habitat by fears that they may attract an endangered species to their property.

VIII. SUGGESTIONS FOR FUTURE MANAGEMENT

To prevent extinction in California of each of the four species of bumble bees listed in this petition, all extant populations of each species need to be identified and their habitat should be protected and managed to benefit the species. Surveys throughout the historic ranges of each species are recommended in order to accomplish this. To rebuild populations of *Bombus crotchii, B. franklini, B. suckleyi,* and *B. occidentalis occidentalis,* habitat should be restored within their historic ranges, prioritizing habitat closest to extant populations of each species. These efforts will be most effective if both public land managers and private landowners engage in habitat restoration and species recovery efforts.

The following general guidelines include management practices that will maintain and restore habitat for *B. crotchii, B. franklini, B. suckleyi,* and *B. o. occidentalis*:

General Guidelines for Bumble Bees

Due to the inherent vulnerability of many bumble bee species and importance of supporting wild bee populations for pollination services, the following general conservation practices are recommended:

1. Identify, protect, enhance, and restore natural high-quality habitats to include suitable forage, nesting and overwintering sites.
2. Promote farming practices that increase of nitrogen-fixing fallow (legumes) and other pollinator-friendly plants along field margins.
3. Restrict pesticide use on or near each species' habitat, particularly while treated plants are in flower.
4. Minimize exposure of wild bees to diseases transferred from managed bees.
5. Avoid honey bee introduction to high-quality native bee habitat.

Creating High-Quality Habitat

There are three things that bumble bees need in the landscape to thrive: flowers on which to forage, somewhere to nest, and a place to overwinter. Each of these habitat requirements is vital for different phases of the bees' annual life cycle.

Pollen and Nectar Sources

Bumble bees need a rich supply of flowers during the entirety of the colony's life. Bumble bees

are generalist foragers and will gather pollen and nectar from a variety of flowering plants. However, individual bumble bees do show high fidelity to particular flowers within a bloom period. The flight season of different species varies, but generally queens emerge in the late winter or early spring and the colony continues through to late summer or early fall. This requirement makes bumble bees sensitive to differing management practices throughout the course of the year. Monoculture crops, grazing, mowing, and weed control can interfere with the long-term health of bumble bee populations.

Careful selection of plants that are beneficial to bumble bees is essential to creating valuable habitat. Native plants are an excellent choice to provide nectar and pollen sources. They provide several benefits:

- Bumble bees coevolved with native plants and therefore know how to use them as a resource.
- Once established, native plants typically need less maintenance (less water, reduced use of fertilizers and pesticides).
- Native plants usually do not spread to become weedy species in natural areas.

Nesting and Overwintering Habitat

Most bumble bees nest underground, often in abandoned holes made by rodents, or occasionally abandoned bird nests (Osborne et al. 2008). Some species do nest on the surface of the ground (in grass tussocks) or in empty cavities (hollow logs, dead trees, under rocks, etc.). Queens most likely overwinter in small cavities just below or on the ground surface. While there is still much to be learned about the nesting and overwintering biology of bumble bees, it is clear that any near-surface or subsurface disturbance of the ground is likely disastrous for bumble bee colonies or overwintering queens. This includes mowing, fire, tilling, grazing, and planting. Protecting areas of land from such practices is essential for sustaining bumble bee populations. Since bumble bees usually nest in abandoned rodent nests, it is also important to retain landscape features that will support rodent populations (McFrederick and LeBuhn 2006).

Restoring and Managing Habitat

The following management recommendations are designed to be synchronous with the bumble bee life cycle and minimize risks to colonies, while maintaining flower-rich foraging areas and secure nest sites. Mowing, fire, and grazing are all widely used and valuable tools for maintaining the open, meadow-like conditions that bumble bees prefer. However, if done inappropriately (such as too frequently, or over too wide of an area), these activities can also remove too many floral resources and destroy nesting habitat for bumble bees, as well as harm butterflies, moths, and other invertebrates whose life cycles depend on the plants being disturbed (Mäder et al. 2011). Two key principals that apply irrespective of which management action is being employed include: do not treat the entire site at one time and when a treatment is being applied, do not treat more than one third of the site per year.

Mowing

Grassy areas such as meadows, forest edges, hedgerows, and lawns may all be subject to mowing. Research in Britain has shown that unmanaged meadows and garden areas with a high proportion of grass and different layers of habitat have the highest diversity of bumble bees (*in* Mäder et al. 2011), and that mowed sites have significantly fewer bumble bee nests (Potts et al. 2009). When mowing is a necessary management action, the following guidelines may be adopted:

- Leave one or more patches—as large as possible—of meadow, lawn, or edge habitat unmowed for the entire year.
- If you need to mow during the flight season (March-September), try to create a mosaic of patches with structurally different vegetation.
- Mow at the highest cutting height possible to prevent disturbance of established nests or overwintering queens. A minimum of 12-16 inches is ideal.

Fire is an important management tool for many meadows or open habitats, but requires care to avoid disturbance to plant and animal populations. The following recommendations will maximize the benefit to bumble bees.

- Only burn a specific area once every 3-6 years.
- Burn from October through February.
- Burn small sections at a time.
- No more than one third of the land area should be burned each year.
- If possible mow fire breaks that will result in patches of unburned or lightly burned areas to serve as refuge for animals within the burn area.
- Avoid high intensity fires.

Grazing

A common practice in natural areas and agricultural landscapes, grazing has been shown to have dramatic effects on the structure, diversity, and growth habits of plants. When carefully applied, grazing can be beneficial for limiting shrub and tree succession, encouraging the growth of nectar rich plants, and providing the structural diversity that creates nesting habitat. However, grazing animals have the potential to remove flowering resources, as well as trample nesting and overwintering sites—and in turn harm the animal communities that depend on them (Black et al. 2011).

Grazing is usually only beneficial to bumble bees at low to moderate levels and when the site is grazed for a short period followed by ample recovery time. We make the following general recommendations, but stress the importance of assessing local and historical conditions before implementing a plan.

- Grazing management strategies should be completed according to the characteristics of

the site and the animals being used.

- Grazing on a site should occur for a short period of time, giving an extended period for recovery.
- Grazing should only occur on approximately one third of the property each year.
- Establish exclosures and rotate grazing to allow recovery of the vegetation community.

Tillage

Any surface or subsurface disturbance can be harmful to bumble bee colonies. In order to ensure the long-term health of bumble bee populations at least some areas under management must remain permanently free of tillage. These areas could be fence margins, hedgerows, debris piles, ditches, compost heaps, etc. Nesting surveys in Britain showed that gardens and linear features like hedgerows (i.e., places free from tillage) provided important bumble bee nesting habitat (Osborne et al. 2008).

Using Pesticides

Decision-making systems such as Integrated Pest Management can be important for developing less toxic responses to pests, and ensure that actual pest damage is taking place before chemicals are used. It is important to note that it is not just cropland and rangeland that experience high use and concentrations of pesticides. Surveys of urban streams suggest heavy use of pesticides in urban and suburban areas (USGS 2014). Also, for some pesticides allowable application rates are higher for home use relative to their agricultural counterparts (Hopwood et al. 2016).

For situations when pesticides must be used (e.g. an economic or public health pest having reached an established threshold), the following recommendations will reduce harm to these bumble bee species:

- Follow the manufacturer's directions.
- Choose the least toxic option:
    - Avoid dusts and microencapsulated products
- Use the lowest effective application rate.
- Apply the pesticide as directly and locally as possible.
- Apply when bumble bees are not active (keeping in mind that bumble bees can fly at cold temperatures, and are often active in the early morning and early spring):
    - Late fall or winter.
    - At dusk or at night (if the pesticide is short lived).
- Do not spray or allow drift to move onto field margins or boundaries.
- Do not apply pesticides when plants are in bloom.
- Reduce spray drift:
    - Avoid aerial spraying and mist blowers.
    - Spray on calm days (winds between 2 and 9 mph) to minimize spray drift from

targeted applications.

- Avoid the use of systemic insecticides, such as neonicotinoids.

Commercial Use of Bumble Bees

Increasingly, as the cost of honey bee rental increases and the benefits of bumble bees as pollinators are realized, bumble bees are being shipped throughout the world for pollination of greenhouse and field crops. Pathogens harbored by commercially reared bumble bees have been implicated in the decline of multiple species of North American bumble bees, including two species included in this petition (*Bombus occidentalis occidentalis* and *B. franklini*). Currently, there is only one species of bumble bee being used for managed pollination, the common eastern bumble bee, which is native to the eastern U.S., but used in California for pollination of greenhouse crops. Should the common eastern bumble bee escape greenhouses and establish in the wild, as it has in southern B.C., it may spread pathogens to wild bumble bees, or outcompete native species for nest sites or floral resources (Whittington et al. 2004; Colla et al. 2006). In addition, commercial bumble bee producers are actively developing species that could be used for open-field pollination in California (Biobest 2018a; 2018b; APHIS 2014), and should that occur, these commercial bumble bees may pose a considerable risk to the four species of bumble bees listed in this petition.

Any use of commercially reared bumble bees for crop pollination should focus on minimizing the exposure of wild native species to managed species.

- Do not allow commercial bumble bees to be used outside of the native range of the species; if native bumble bees are allowed, ensure that they are produced within their native ranges.
- Only use commercial bumble bees in greenhouses; do not use them for open-field crops.
- Screens should be placed over window, vents, and other openings in greenhouses to prevent commercial bumble bees from escaping and interacting with wild bumble bees.
- Commercially acquired colonies should be killed (for example, by being placed in a freezer overnight) after their period of use and NOT released into the wild.

Honey Bees

Honey bees may pose a significant threat to at-risk bumble bees in this petition through competition for floral resources and spread of pathogens (Mallinger et al. 2017). Significantly, honey bees have been shown to extract vast quantities of pollen from the environment; an averaged sized apiary (40 hives) effectively removes nutritional resources that could have produced 4,000,000 wild bees over the course of three months (Cane & Tepedino 2016).

Recommendations for Land Managers

Where local and federal laws permit the placement of honey bees, and managers are deciding

whether to include hives on their land, we suggest that managers consider the following potential impacts of honey bees.

Are populations of endangered or threatened pollinators present on the land?

- If rare species of bees and butterflies, including threatened or endangered species, are known to exist within the flight area where the hives are to be placed, assessment of potential risks to these populations should be undertaken.
- If it is possible that rare or declining pollinator species can be found in the area, efforts should be made to determine if they are present. Consulting scientists with expertise in pollinator surveys and species identification is recommended. In cases where a particular pollinator species is critically imperiled, every remaining population and individual may be essential to the species' immediate and long-term survival. There is potential that honey bees may transmit diseases to native bees (e.g., spread of deformed wing virus from honey bees to bumble bees causing wing damage) and may compete for floral resources (e.g. decreased fecundity in bumble bees).
- We recommend that land managers discourage the placement of honey bee hives in natural areas, especially if populations of imperiled pollinators are present. Areas with diverse wildflowers are likely to also be hosts to diverse populations of native pollinators including imperiled bumble bees, and as such are not appropriate for honey bee apiaries; this is particularly true in protected areas (Geldmann & González-Varo 2018).
- If this recommendation cannot be followed, we recommend that honey bee hives be placed as far as practicable from areas receiving specialized management treatment for bumble bees.
    - Especially important will be to distance honey bee apiaries from potential bumble bee nesting sites, such as unmowed and untilled areas, old rock walls, fencerows or hedgerows, treed field margins, and hollow trees.
    - Where possible, distances greater than 2.4 miles (4 kilometers) will substantially reduce the competitive effects of managed hives on bumble bees (Cane & Tepedino 2016).

Are there invasive plant populations, or ongoing efforts to eradicate invasive plant species, that would be affected by the inclusion of honey bees?

- Honey bees may not be compatible with invasive plant species management. If honey bees pollinate and increase seed production of the invasive species in question (e.g., yellow star thistle), land managers may want to exclude honey bees during periods of bloom.

What are the potential impacts to other wildlife?

- Are there bears in the area that will be attracted to the apiary as a food source? Land managers need to work with beekeepers to determine if placement of an apiary will

increase the potential for human–bear conflicts. If this is a risk, then electric fencing and maintenance of that fencing to prevent intrusion from bear should be mandated on public lands to avoid bear damage to apiaries and to prevent habituation of bears to hives.

Is there sufficient infrastructure to support the drop-off and storing of the proposed operation?

- Commercial beekeepers may bring anywhere between 4 and 400 hives, depending upon the size of the operation. Hives are delivered using a range of vehicles from flatbed trucks to semi-tractor trailers. Access roads must be appropriate for the required transport, and should not result in excess erosion, road damage, or other infrastructure challenges.
- Apiary sites also must be of sufficient size, with level and firm ground to accommodate small forklifts or bobcats used to move pallets of bees. An apiary location will also need sufficient space for trucks to turn around.

Inventory, Research & Management Needs

Inventory, research, and management needs for each species listed in this petition are outlined below:

Crotch Bumble Bee (Bombus crotchii)

Inventory needs: Once very common in central and southern California, *B. crotchii* has recently undergone a dramatic decline, and is no longer present across much of its historic range. In order to better understand this species' distribution, in order to conserve existing populations, comprehensive surveys of this species at historic sites and other locations within its historic range are needed.

Research needs: Research needs for North American bumble bees (as a whole) are summarized in Cameron et al. (2011a), the final report for the 2010 North American Bumble Bee Species Conservation Planning Workshop. More research is needed to understand basic life history of *B. crotchii*, including nesting preferences, overwintering needs, and important host plants in California.

Management needs: Known and potential sites should be protected from threats. In the Central Valley, known populations should be protected from insecticide use. Practices such as livestock grazing and other factors that may interfere with the habitat requirements of this species (availability of nectar and pollen throughout the colony season and availability of underground nest sites and hibernacula) should be minimized where this species is extant. Carefully consider the placement of non-native European honey bees in areas that may be occupied by *B. crotchii* (see Hatfield et al. 2016 for more detail).

Franklin's bumble bee (Bombus franklini)

Inventory needs: Comprehensive surveys in *B. franklini*'s historic range should continue (Dr.

Robbin Thorp conducts annual bumble bee surveys within the range of this species).

Research needs: Research to address critical conservation questions for this species has been hindered by the fact that this bee may be extinct – it has not been observed since 2006 despite extensive annual surveys throughout its historic range. Should an extant population of *B. franklini* be discovered, more research would be recommended to gain a better understanding of the species' ecology, biology, and habitat requirements, especially any that might be limiting factors. Additionally, studying the pathology, control, and cross-infectivity of different suspected disease agents of *B. franklini*, including *Nosema bombi, Locustacarus buchneri, and Crithidia bombi* (Otterstatter et al. 2005; Colla et al. 2006) would allow for better understanding of the risks to the bumble bee populations and the preventative measures that should be taken.

Management needs: The habitat of *B. franklini* should be protected, including an abundance of suitable pollen and nectar sources such as, but not limited to: *Lupinus, Eschscholzia, Agastache, Monardella* as sources of pollen and nectar for the bees to feed on. Proximity to a natural source of fresh water would also be beneficial as it would increase the flowering season of the plants upon which the bees feed. Also, suitable nest sites are needed, such as abandoned rodent burrows.

Western bumble bee (Bombus occidentalis occidentalis)

Inventory needs: Once very common in the western United States and western Canada, *B. o. occidentalis* has recently undergone a dramatic decline in abundance and distribution, and is no longer present across the western portions of its historic range. In order to better understand the causes and extent of this species' decline, as well as the conservation needs of remaining populations, additional comprehensive surveys of this species at historic and potential sites are needed throughout California.

Research needs: Despite the widespread nature of this bumble bee, more research is needed to evaluate basic life history and ecological questions, including nesting preferences, overwintering needs, and important host plants in California.

Management needs: Protect known and potential sites from practices, such as livestock grazing, and threats such as conifer encroachment, that can interfere with the habitat requirements of this species (availability of nectar and pollen throughout the colony season and availability of underground nest sites and hibernacula). Carefully consider the placement of non-native European honey bees in areas that may be occupied by *B. o. occidentalis* (see Hatfield et al. 2016 for more detail).

Suckley bumble bee (Bombus suckleyi)

Research needs: *Bombus suckleyi* is a cuckoo bumble bee, dependent upon a bumble bee host

species to complete its life-cycle; thus the disappearance, or increasing rarity of that host would represent a threat to species existence. *B. suckleyi* is dependent on bumble bees that have recently documented range declines. The continued decline of these host species are a severe and permanent threat to continued existence of these cuckoo bumble bees. Efforts to conserve their hosts should be prioritized. While this species has only been documented as reproducing in nests of *B. o. occidentalis* it has been observed in the nests of several other species. More research is needed to determine if *B. suckleyi* could use other species as a successful host would help to better understand this species ecology. Additional life history information would also help to better understand this species' biological needs. This includes important host plants, location and details of overwintering sites, and specific habitat associations.

Inventory needs: Records of this species in California have been quite rare in recent collections. This species would benefit from targeted or more general bumble bee surveys to better understand its distribution throughout the state.

Management needs: Protect known and potential sites from practices, such as livestock grazing, and threats such as conifer encroachment, that can interfere with the habitat requirements of this species and its host (availability of nectar and pollen throughout the colony season and availability of underground nest sites and hibernacula). Efforts to conserve hosts species should be prioritized.

IX. INADEQUACY OF EXISTING REGULATORY MECHANISMS

Current regulations and regulatory mechanisms are wholly inadequate to protect these four species of bumble bees against the immediate threats that they face, including pathogen infection from commercial bees and the use of pesticides such as systemic insecticides. As emerging infectious disease has been implicated as one of the main threats to bumble bees (Evans et al. 2008; Hatfield et al. 2015a; 2015b; 2015c; Goulson & Hughes 2015), and pesticides including systemic insecticides have also been implicated in bumble bee declines (Whitehorn et al. 2012; Gill & Raine 2014; Pisa et al. 2014; Goulson 2015; Rundlöf et al. 2015), existing regulations need to be strengthened in order to adequately protect imperiled bumble bees from threats that, if unaddressed, have the potential to drive these bumble bees to extinction. Inadequacy of regulations to protect bumble bees from these immediate threats are summarized below.

Disease

Due to the immediate and potentially catastrophic effect that emerging infectious disease can have on bumble bee populations, more careful screening for diseases in commercial bees, as well as better management strategies and policy are needed to protect native bees from the threat of pathogen spillover (Graystock et al. 2013b; Sachman-Ruiz et al. 2015). Since small, fragmented, and declining populations are especially susceptible to infectious disease (Fürst et al. 2014), and

disease is already implicated as a likely causal factor of some native bee declines in North America (Cameron et al. 2011a), the emerging body of research summarized in Section V (Factors Affecting Ability to Survive and Reproduce) underscores the inadequacy of existing regulatory mechanisms to protect bumble bees from extinction.

The failing of current local and federal regulatory mechanisms is evidenced not just in their absence but in the continued decline of native bees across North America, including the western bumble bee, most likely caused by the spread of such pathogens that cause disease (Cameron et al. 2011a; Goulson & Hughes 2015). The emerging body of research linking decline of native bumble bees with the spread of pathogens underscores the inadequacy of existing regulatory mechanisms to protect bumble bees from extinction. Disease is a serious threat for bumble bees, as we explain above, because small, fragmented, and declining populations—which exist for all of the species included in this petition—are especially susceptible to infectious disease (Fürst et al. 2014).

Federal Regulations are Inadequate to Protect Wild California Bumble Bees

The Plant Protection Act

The Plant Protection Act (PPA) was passed in 2000 with the stated purpose of preventing the dissemination of plant pests. In order to control and prevent of the spread of plant pests for the protection of agriculture, the environment, and the U.S. economy, the PPA gives the Secretary of Agriculture the authority to facilitate "interstate commerce in agricultural products and other commodities that pose a risk of harboring plant pests or noxious weeds in ways that will reduce…the risk of dissemination of plant pests or noxious weeds. (7 USC § 7701(3))" The PPA authorizes the Secretary of Agriculture to promulgate regulations to prohibit or restrict the interstate movement of any plant pest if the Secretary determines the prohibition is necessary to prevent the dissemination of a plant pest within the U.S. The PPA broadly defines plant pests to include fungi, viruses, infectious agents and other pathogens, and any similar articles "that can directly or indirectly injure, cause damage to, or cause disease in any plant or plant product." Articles such as pathogens and parasites that infect or attack bumble bees cause indirect injury to plants that rely on these bees for pollination.

Although the Act was intended to protect agricultural goods, it could potentially directly or indirectly help control the spread of bumble bee diseases and pathogens. However, it has not done so. Currently, the USDA does not regulate either the disease status or interstate movement of U.S. commercial bumble bees, despite repeated requests to use its authority under the PPA to do so (Xerces Society et al. 2010; Xerces Society et al. 2013, 2014a, 2014b). This lack of regulation is a fact reflected in the absence of bumble bees, or their pathogens, from the list of pests and diseases regulated by USDA APHIS (USDA 2018). There is no indication that this will change in the near future, and so the PPA, which provides for the facilitation of "interstate

commerce in agricultural products," remains ineffective at slowing the spread of disease from commercial bumble bees to their native counterparts, including the bumble bees listed in this petition, and this inadequacy is reflected in the ongoing spread of disease from commercial to native bumble bees across the United States.

The USDA does regulate the international movement of Canadian bumble bees into the United States. Currently, the USDA allows the common eastern bumble bee (*Bombus impatiens*) and the western bumble bee (*Bombus occidentalis*) to be imported from Canada (7 CFR § 322.5). The USDA recently reviewed a request to allow Hunt's bumble bee (*B. huntii*) to also be imported into the U.S. from Canadian bumble bee production facilities (USDA 2014). The USDA regulations fail to protect the bumble bees included in this petition for two reasons: 1) Commercial colonies are not tested for pathogens upon importation (7 CFR § 322.5), and any pathogens present in commercial bumble bees could spread to bumble bees that visit the same flowers as commercial bumble bees (Graystock et al. 2015b); 2) Commercial bumble bees (*B. impatiens*) are produced both in Canada and the U.S., and colonies produced in the U.S. are also not required to be inspected for any pathogens.

The Honeybee Act

The Honeybee Act (7 USC 281) gives the Secretary of Agriculture the authority to regulate the interstate commerce of honey bees in order to control the spread of bee diseases: "The Secretary of Agriculture is authorized to prohibit or restrict the importation or entry of honeybees and honeybee semen into or through the United States in order to prevent the introduction and spread of diseases and parasites harmful to honeybees, the introduction of genetically undesirable germ plasm of honeybees, or the introduction and spread of undesirable species or subspecies of honeybees and the semen of honeybees." For example, the USDA uses its authority under the Honeybee Act to prevent movement of honey bees into Hawaii in order to control the spread of honey bee pests like the Varroa mite (summarized in Xerces Society et al. 2010). However, the Honey bee Act is specific to honey bees, and does not extend authority to the USDA to regulate diseases of managed bumble bees. Thus, the Honeybee Act fails to protect imperiled bumble bees from pathogens harbored by commercial bumble bees that are used throughout North America.

There is clear evidence that honey bees can transmit pathogens to bumble bees (Graystock et al. 2013a, 2013b; Graystock et al. 2015a, 2015b; Fürst et al. 2014; McMahon et al. 2015). However, any indirect protection of bumble bees flowing from regulation of honey bees under the Honeybee Act is limited in scope, and inadequate for protection. First, pathogens that impact the bumble bees may come from multiple sources beyond honey bees; second, the Honeybee Act does not apply to the movement of pollen for use by the commercial bumble bee trade (the risks of this practice are reviewed in Manley et al. 2015); and third, the laws seeking to prevent the spread of disease among honey bees suffer in their lack of uniformity and enforcement. State

laws regulating interstate movement of honey bees vary considerably from state to state (Gegner 2003). For example, Massachusetts requires bees imported into the state to be certified disease free within 60 days (State of Massachusetts 2018), while Minnesota does not have any similar requirements, and only offers fee for service apiary inspections (State of Minnesota 2017). In addition, responsibility for disease control remains with the beekeeper, who should routinely examine colonies for disease as a regular part of his or her management program and do what is necessary when disease is found. Yet there are not clear regulations that determine how often hives should be screened, or for which pathogens. Significantly, there are not consistent, effective mitigative actions for beekeepers to employ upon disease discovery (Graystock et al. 2015a).

California State Regulations Governing Commercial Bumble Bees

The California Department of Food and Agriculture currently allows multiple species of managed, commercial bumble bees to be imported for commercial use in the state – the nonnative common eastern bumble bee (*B. impatiens*) for greenhouse use, and the native Hunt's bumble bee (*B. huntii*) and yellow faced bumble bee (*B. vosnesenskii*) for open field or greenhouse use. Although the Hunt's and yellow faced bumble bees are native to California, they are currently produced outside of their native ranges, in facilities that also rear common eastern bumble bees, and thus could be exposed to nonnative pathogens, which they then could spread to wild bumble bees, including the four bumble bees included in this petition. Thus, CDFA's regulations are currently inadequate to protect these for species of wild bumble bees from the threat they face from pathogen infection from managed bumble bees.

In addition, CDFA routinely allows honey bees to be imported into California for use in open field settings, where pathogens (in particular, RNA viruses) may spill over and infect wild bumble bees.

Although the state of California has passed regulations to protect bees (https://www.cdfa.ca.gov/plant/pollinators/docs/Regulations-for-Protection-of-Bees.pdf), these regulations only consider effects of pesticides on honey bees, and how to mitigate those effects, and thus are inadequate to protect these four species of wild bumble bees.

Pesticide Regulations

In June 2014, the US EPA published the *Guidance for Assessing Pesticide Risks to Bees* (U.S. EPA 2014). The guidelines provide recommendations to assist researchers in designing studies to evaluate the risks that pesticides pose to bees. Such studies are in turn used by the EPA to assess risk and determine appropriate regulation. This new guidance document could add new research to the current battery of tests required for pesticides. Still, it fails to address many concerns specific to bumble bees and other native bees. As such, pesticide risk assessments performed by the EPA could underestimate risk to bumble bees and other native bee species. For example, the

guidelines state: “This section summarizes the overall risk assessment process for characterizing the risks of pesticides to honey bees (*Apis mellifera*), which are used as a surrogate species for other *Apis* and non-*Apis* bees and other insect pollinators.” (USEPA 2014). However, the differential physiological, biological and behavioral differences of honey bees from other native bees (Osborne 2012; Vaughan et al. 2014) make honey bees poor surrogates for assessing toxicity of pesticides to bumble bees. In particular, the life-history of many non-*Apis* species (including bumble bees) including nest site location, foraging time and distance, food sources, life-cycle, and size may expose bumble bees and other non-*Apis* bee species to alternative exposure routes not considered when tests are only applied to honey bees (Wisk et al. 2014). Furthermore, unlike honey bees, bumble bees do not process pollen or nectar before feeding it to immature bees, which exposes developing bumble bees to a greater concentration of pesticides than honey bees—whose larvae are fed primarily royal jelly (processed secretions from nurse bees), and perhaps a small amount of pollen and nectar (Fischer & Moriarty 2011). For example, bumble bees appear to be affected by dietary concentrations of the systemic insecticide imidacloprid at levels lower than honey bees, perhaps because, unlike honey bees, bumble bees do not metabolically degrade imidacloprid effectively while continuing to ingest it (Cresswell et al. 2014). This range of exposure routes was not considered during the EPA’s registration process for neonicotinoids (USEPA 2012). Thus, the current mechanism that regulates the safety of pesticides to bees fails to take into account attributes specific to bumble bees and is therefore inadequate to protect bumble bees from the threat of pesticides.

Further demonstrating how current federal pesticide regulation fails to address risks to bumble bees is underscored by the fact that the EPA has not adequately responded to the numerous bumble bee kills caused by on-label, legal uses of neonicotinoid insecticides to *Tilia* trees. Specifically, in most of these cases, large numbers of bumble bees were killed by the legal applications of neonicotinoid insecticides; in one case more than 50,000 bumble bees were killed in a single incident (Hilburn 2013). Since June of 2013, there have been numerous completed investigations into bumble bee kills that occurred in Oregon. Responding to the risks associated with two of the incidents, U.S. EPA halted foliar use of nitroguanidine neonicotinoids on non-agricultural plants (including *Tilia* trees) <u>while plants are flowering</u> (US EPA 2013). However, because neonicotinoid insecticides can remain in plant tissue for weeks to months, and in some cases even years (Mach et al 2017), this change in regulation remains inadequate to protect bumble bees from nitroguanidine neonicotinoids applied to bumble bee-attractive plants prior to flowering. No federal action has been taken in response to the risks demonstrated by five other bee-kill incidents in Oregon caused by non-foliar, systemic applications <u>weeks to months prior to flowering</u>. Of these five incidents, only one was linked with an off-label use. The state of Oregon did respond to this risk by halting all uses of nitroguanidine neonicotinoids to *Tilia* trees within the state of Oregon (ODA 2015). However, not all imperiled bumble bees listed in this petition have a range that includes the state of Oregon, and therefore are not protected by this state’s

regulation. Even after the Oregon Department of Agriculture wrote to EPA to point out the inadequacy of the federal regulation, the EPA did not take action to protect bumble bees from long-term residues of systemic insecticides in woody plants such as *Tilia*.

An additional failure of the federal regulations to protect imperiled bumble bees from the threat of pesticides is that the U.S. EPA's Office of Pesticide Program conducts chemical-specific risk assessments for bees. Yet, research has begun to elucidate threats that pesticide mixtures pose to bees. While the majority of studies have been conducted on honey bees, these studies demonstrate an area of significant uncertainty that could lead to an underestimation of risk to other species of bees. For example, there can be different risks between active ingredients and full formulations (Mullin et al. 2015). There are also additive and synergistic effects between chemicals that might be found jointly in tank mixes or in the field. For example, research has raised concern for synergistic effects of the combination of ergosterol biosynthesis inhibiting fungicides and pyrethroids (Vandame and Belzunces 1998). Neonicotinoids are also known to be additively or synergistically toxic when they occur together (Andersch et al. 2010). The findings by Zhu et al. (2014) led the researchers to recommend that pesticide mixtures in pollen be evaluated by adding their toxicities together until complete data on interactions can be accumulated. Further, a recent study by Hladik et al. (2015) showed that within a single sample that non-*Apis* bees are exposed to mixtures of several pesticides, including neonicotinoids, pyrethroids, and fungicides. This provides clear evidence that native bees are exposed to multiple pesticides in their foraging bouts, yet, because of a lack of appropriate regulatory mechanisms and testing protocols, the EPA does not understand how exposure to multiple pesticides affects bumble bees – despite evidence that there are significant deleterious effects (See references above). Current EPA risk assessment regulations for pesticide effects on bees do not consider additive, or synergistic effects of pesticides, and are therefore inadequate to protect bumble bees from the threat of pesticides.

In summary, it is clear that 1) different species of bees have different responses to different insecticides; 2) current regulations for insecticide approval from the EPA only consider the effects of insecticides on honey bees – which are used as a surrogate for non-*Apis* bees; 3) the EPA has not adequately responded to a known and realized threat that nitroguanidine neonicotinoids applied to cosmetic plantings pose to bees; 4) EPA does not address the known synergistic and additive effect of multiple pesticides, despite evidence that bees are exposed to multiple chemicals in their foraging bouts. As such, current regulatory mechanisms and testing protocols for pesticides are inadequate to protect the four species of bumble bees in this petition from the widespread and prophylactic use of insecticides that are highly toxic to them.

X. AVAILABILITY AND SOURCES OF INFORMATION

Literature Cited

Aldridge G., D. W. Inouye, J. R. K. Forrest, W. A. Barr, and A. J. Miller-Rushing. 2011. Emergence of a mid-season period of low floral resources in a montane meadow ecosystem associated with climate change. Journal of Ecology 99(4): 905-913.

Al-Jabr, A.M. 1999. Integrated pest management of tomato/potato psyllid, *Paratrioza cockerelli* (Sulc) (Homoptera: Psyllidae), with emphasis on its importance in greenhouse grown tomatoes. Ph.D dissertation, Deparment of Bioagricultural Sciences and Pest Management, Colorado State University. 107 pp.

Altizer, S., D. Harvell, and E. Friedle. 2003. Rapid evolutionary dynamics and disease threats to biodiversity. Trends in Ecology & Evolution 18:589–596.

Andersch, W., P. Jeschke, and W. Thielert. 2010, August 26. Synergistic Insecticide Mixtures. 20100216637 A1. Available from https://www.google.com/patents/US20100216637. [Available 25 September 2018].

Anderson, G. J. and M. K. Anderson. 1989. Assaying pollinator visitation to *Solanum* flowers. Solanaceae newsletter 3(1):71.

[APHIS] Animal and Plant Health Inspection Service. 2014. Pest Risk Assessment for bumble bees from Canada. Importation of Bumble Bee Species *Bombus huntii* Greene (Hunt bumble bee) and *B. vosnesenskii* Radoszkowski (Vosnesensky bumble bee) from Canada into the Continental United States. A Qualitative, Pathway-Initiated Pest Risk Assessment. Version 1.1.

Arbetman, M. P., I. Meeus, C. L. Morales, M. A. Aizen, and G. Smagghe. 2013. Alien parasite hitchhikes to Patagonia on invasive bumblebee. Biological Invasions 15:489–494.

Arce, A. N., T. I. David, E. L. Randall, A. Ramos Rodrigues, T. J. Colgan, Y. Wurm, and R.J. Gill. 2016. Impact of controlled neonicotinoid exposure on bumblebees in a realistic field setting. Journal of Applied Ecology 54(4): 1199-1208.

Baker, N.T. and W. W. Stone. 2015, Estimated annual agricultural pesticide use for counties of the conterminous United States, 2008–12: U.S. Geological Survey Data Series 907, 9 p.

Bartlewicz, J., M. I. Pozo, O. Honnay, B. Lievens, and H. Jacquemyn. 2016. Effects of agricultural fungicides on microorganisms associated with floral nectar: susceptibility assays and field experiments. Environmental Science and Pollution Research 23(19): 19776-19786.

Belsky, A. J., A. Matzke, and S. Uselman. 1999. Survey of livestock influences on stream and riparian ecosystems in the western United States. Journal of Soil and Water Conservation 54:419–431.

Berenbaum, M., P. Bernhardt, S. Buchmann, N. Calderone, P. Goldstein, D. W. Inouye, P. Kevan, C. Kremen, R. A. Medellin, and T. Ricketts. 2007. Status of pollinators in North America. The National Academies Press, Washington, DC.

Bernauer, O. M., H. R. Gaines-Day, and S. A. Steffan. 2015. Colonies of bumble bees (*Bombus impatiens*) produce fewer workers, less bee biomass, and have smaller mother queens following fungicide exposure. Insects 6(2): 478-488.

Bertsch, A., Hrab'e de Angelis, M. & Przemeck, G.K.H. 2010. A phylogenetic framework for the North American bumblebee species of the subgenus *Bombus* sensu stricto (*Bombus affinis, B. franklini, B. moderatus, B. occidentalis* & *B. terricola*) based on mitochondrial DNA markers. Beitr¨age zur Entomologie 60:229–242.

Bhattacharya, M., R. B. Primack, and J. Gerwein. 2003. Are roads and railroads barriers to bumblebee movement in a temperate suburban conservation area? Biological Conservation 109:37–45.

Biesmeijer, J. C., S. P. M. Roberts, M. Reemer, R. Ohlemüller, M. Edwards, T. Peeters, A. P. Schaffers, S. G. Potts, R. Kleukers, C. D. Thomas, J. Settele, and W. E. Kunin. 2006. Parallel declines in pollinators and insect-pollinated plants in Britain and the Netherlands. Science 313: 351-354.

Biobest Group. 2018a. North American growers count on Biobest for great pollination results in open field fruit production. Website: https://www.biobestgroup.com/en/page/295650/north-american-growers-count-on-biobest-for-great-pollination-results-in-open-field-fruit-production. [Accessed 15 March 2018].

Biobest Group. 2018b. Hive Types. https://www.biobestgroup.com/en/biobest/pollination/things-to-know-about-bumblebees-7052/hive-types-6683/. [Accessed 15 March 2018].

Black, S. H., M. Shepherd, and M. Vaughan. 2011. Rangeland management for pollinators. Rangelands 33(3):9-13.

Blaker, E. A., J. P. Strange, R. R. James, F. P. Monroy, and N. S. Cobb. 2014. PCR reveals high

prevalence of non/low sporulating Nosema bombi (microsporidia) infections in bumble bees (*Bombus*) in Northern Arizona. Journal of invertebrate pathology 123:25–33.

Brown, M. J. F., R. Schmid-Hempel, and P. Schmid-Hempel. 2003. Strong context-dependent virulence in a host-parasite system: reconciling genetic evidence with theory. Journal of Animal Ecology 72: 994-1002.

Buchmann, S. L. 1983. Buzz pollination in angiosperms. Pages 73-113 i*n* C. E. Jones and R. J. Little, editors. Handbook of experimental pollination biology. Van Nostrand Reinhold Company, New York, NY.

Buchmann, S. L. 1996. Competition between honey bees and native bees in the Sonoran Desert and global bee conservation issues. Pages 125–142 *in* A. Matheson, S. L. Buchmann, C. O'Toole, P. Westrich, and I. H. Williams, editors. The conservation of Bees. Available from http://www.cabdirect.org/abstracts/19960200662.html [Accessed January 8, 2014].

Bueno, C., K. E. Ruckstuh, N. Arrigo, A. N. Aivaz, and P. Neuhaus. 2011. Impacts of cattle grazing on small-rodent communities: an experimental case study. Canadian Journal of Zoology 90:22-30.

Bumble Bee Watch. 2017. Bumble Bee Sightings. http://www.bumblebeewatch.org/app/#/bees/lists Query: {"Provinces/States": "California"; "Species": "occidentalis / Western bumble bee"; "Status": "Verified"}. [Accessed 20 June 2017].

Burns, I. 2004. Social development and conflict in the North American bumblebee *Bombus impatiens* Cresson. University of Minnesota. Ph.D. Thesis.

Butz-Huryn, V. M. 1997. Ecological impacts of introduced honey bees. Quarterly Review of Biology: 275–297.

[CA DPR] California Department of Pesticide Regulation. 2014. Summary of Pesticide Use Report Data 2012 *Indexed by Chemical*. 726 pp. Available from: http://www.cdpr.ca.gov/docs/pur/pur12rep/chmrpt12.pdf [Accessed 15 February 2018].

Calvin, L. and R. Cook. 2005. North American greenhouse tomatoes emerge as a major market force. Amber Waves: US Department of Agriculture Economic Research Service. 8 pp.

Cameron, S. A., H. M. Hines, and P. H. Williams. 2007. A comprehensive phylogeny of the bumble bees (Bombus). Biological Journal of the Linnean Society. Linnean Society of London

91:161–188.

Cameron, S., S. Jepsen, E. Spevak, J. Strange, M. Vaughan, J. Engler, and O. Byers (eds.). 2011a. North American Bumble Bee Species Conservation Planning Workshop Final Report. IUCN/SSC Conservation Breeding Specialist Group, Apple Valley, MN.

Cameron, S. A., H. C. Lim, J. D. Lozier, M. A. Duennes, and R. Thorp. 2016. Test of the invasive pathogen hypothesis of bumble bee decline in North America. Proceedings of the National Academy of Sciences of the United States of America.

Cameron, S.A., Lozier, J.D., Strange, J.P, Koch, J.B., Cordes, N., Solter, L.F. and Griswold, T.L. 2011b. Patterns of widespread decline in North American bumble bees. Proceedings of the National Academy of Science (USA) 108(2): 662-667.

Cane, J. H. and V.J. Tepedino. 2016. Gauging the effect of honey bee pollen collection on native bee communities. Conservation Letters 10(2):205-210.

Carvell, C. 2002. Habitat use and conservation of bumblebees (Bombus spp.) under different grassland management regimes. Biological Conservation 103: 33-49.

Carvell, C., D. B. Roy, S. M. Smart, R. F. Pywell, C. D. Preston, and D. Goulson. 2006. Declines in forage availability for bumblebees at a national scale. Biological Conservation 132:481–489.

[CDFW] California Department of Fish and Wildlife. 2017. California Natural Diversity Database. October 2017. Special Animals List. Periodic publication. 65 pp.

Center for Biological Diversity, Center for Food Safety, Xerces Society for Invertebrate Conservation, and L. Brower. 2014. Petition to protect the monarch butterfly (*Danaus plexippus plexippus*) under the Endangered Species Act. Available from http://www.xerces.org/wp-content/uploads/2014/08/monarch-esa-petition.pdf.

Code, B. H. and S. L. Haney. 2006. Final Report: Franklin's Bumble Bee Inventory in the Southern Cascades of Oregon. Prepared for: The Bureau of Land Management, Medford, Oregon, 4 Oct. 2006. Available from: http://www.fs.fed.us/r6/sfpnw/issssp/documents/inventories/inv-rpt-iihy-bofr-med-southerncascades-inventory-2006-10.pdf [Accessed 20 February 2018).

Colla, S. R., Gadallah, F., Richardson, L., Wagner, D. and Gall, L. 2012. Assessing the Conservation Status of North American bumble bees using museum records. Biodiversity and

Conservation 21(14): 1379-1391.

Colla, S. R., M. C. Otterstatter, R. J. Gegear, and J. D. Thomson. 2006. Plight of the bumble bee: pathogen spillover from commercial to wild populations. Biological conservation 129:461–467.

Colla, S. R. and L. Packer. 2008. Evidence for the decline of Eastern North American Bumble Bees, with special focus on *Bombus affinis* Cresson. Biodiversity and Conservation 17:1379-1391.

Coop, J. D., and T. J. Givnish. 2007. Spatial and temporal patterns of recent forest encroachment in montane grasslands of the Valles Caldera, New Mexico, USA. Journal of biogeography 34:914–927. Blackwell Publishing Ltd. Available from: http://dx.doi.org/10.1111/j.1365-2699.2006.01660.x.

Cousin, M. E. Silva-Zacarin, A. Kretzschmar, M. El Maataoui, J. L. Brunet, and L. Belzunces. P. 2013. Size Changes in Honey Bee Larvae Oenocytes Induced by Exposure to Paraquat at Very Low Concentrations. PLOS ONE 2013. 8(5):p.e65693

Corbet S. A., M. Fussell, R. Ake, A. Fraser, C. Gunson, A Savage, and K Smith. 1993. Temperature and the pollinating activity of social bees. Ecological Entomology 18:17-30.

Cordes, N., W.-F. Huang, J. P. Strange, S. A. Cameron, T. L. Griswold, J. D. Lozier, and L. F. Solter. 2012. Interspecific geographic distribution and variation of the pathogens *Nosema bombi* and *Crithidia* species in United States bumble bee populations. Journal of Invertebrate Pathology, 109(2), 209-216.

Cox, C. 2001. Insecticide factsheet: Imidacloprid. Journal of Pesticide Reform. 21:15-22.

Cresson, E. T. 1878. Descriptions of new species of North American bees. *Proceedings of the Academy of natural Sciences of Philadelphia* 1878: 181-221.

Cresswell, J. E., F. X. L. Robert, H. Florance, N. Smirnoff. 2014. Clearance of ingested neonicotinoid pesticide (imidacloprid) in honey bees (*Apis mellifera*) and bumblebees (*Bombus terrestris*). Pest management science 70(2): 332-337.

Dafni, A. and A. Shmida. 1996. The possible ecological implications of the invasion of *Bombus terrestris* (L.) (Apidae) at Mt. Carmel, Israel. *In* A. Matheson, S. L. Buchmann, C. O'Toole, P. Westrich, and I. H. Williams (eds.). The Conservation of Bees. Academic Press 183-200 pp.

Darvill, B., J. S. Ellis, G. C. Lye, and D. Goulson. 2006. Population structure and inbreeding in a rare and declining bumblebee, *Bombus muscorum* (Hymenoptera: Apidae). Molecular Ecology 15: 601-611.

Darvill, B., O. Lepais, L. C. Woodall, and D. Goulson. 2012. Triploid bumblebees indicate a direct cost of inbreeding in fragmented populations. Molecular Ecology, 21(16), 3988-3995.

Daszak, P., A. A. Cunningham, and A. D. Hyatt. 2000. Emerging infectious diseases of wildlife–threats to biodiversity and human health. Science 287:443–449. Available from: http://www.sciencemag.org/content/287/5452/443.short [Accessed 13 March 2014].

Dai, P., Z. Yan, S. Ma, Y. Yang, Q. Wang, C. Hou, Y. Wu, Y. Liu, and Q. Diao. 2018. The herbicide glyphosate negatively affects midgut bacterial communities and survival of honey bee during larvae reared in vitro. Journal of Agriculture and Food Chemistry 66(29): 7786-7793.

Diekötter, T., K. Walther-Hellwig, M. Conradi, M. Suter, and R. Frankl. 2006. Effects of landscape elements on the distribution of the rare bumblebee species *Bombus muscorum* in an agricultural landscape. Arthropod Diversity and Conservation 15: 57-68.

Dupont, Y. L., D. M. Hansen, A. Valido, and J. M. Olesen. 2004. Impact of introduced honey bees on native pollination interactions of the endemic *Echium wildpretii* (Boraginaceae) on Tenerife, Canary Islands. Biological Conservation 118:301–311.

Eickwort, G. C. and H. S. Ginsberg. 1980. Foraging and mating behavior in Apoidea. Annual Review of Entomology 25:421–446.

Eilers E. J., C. Kremen, S. S. Greenleaf, A. K. Garder, and A. Klein. 2011. Contribution of pollinator-mediated crops to nutrients in the human food supply. PLoS ONE 6(6):e21363.

Elbgami, T., W. E. Kunin, W. O. H. Hughes, and J. C. Biesmeijer. 2014. The effect of proximity to a honeybee apiary on bumblebee colony fitness, development, and performance. Apidologie: 1–10.

Ellis, J. S., M. E. Knight, B. Darvill, and D. Goulson. 2006. Extremely low effective population sizes, genetic structuring and reduced genetic diversity in a threatened bumblebee species, *Bombus sylvarum* (Hymenoptera: Apidae). Molecular Ecology 15(14): 4375-4386.

Evans, E. C. 2001. Competition between European honey bees and native bumblebees: resource overlap and impact on reproductive success. University of Minnesota.

Evans, E., R. Thorp, S. Jepsen, and S. H. Black. 2008. Status review of three formerly common species of bumble bee in the subgenus/Bombus. The Xerces Society.

Evison, S. E. F., K. E. Roberts, L. Laurenson, S. Pietravalle, J. Hui, J. C. Biesmeijer, J. E. Smith, G. Budge, and W. O. H. Hughes. 2012. Pervasiveness of Parasites in Pollinators. PLoS ONE 7:e30641.

Fauser, A., C. Sandrock, P. Neumann, and B. M. Sadd. 2017. Neonicotinoids override a parasite exposure impact on hibernation success of a key bumblebee pollinator. Ecological Entomology 42(3): 306-314.

Fauser-Misslin, A., B. M. Sadd, P. Neumann, and C. Sandrock. 2014. Influence of combined pesticide and parasite exposure on bumblebee colony traits in the laboratory. Journal of Applied Ecology 51(2): 450-459.

Field, C. B., D. B. Lobell, H. A. Peters, and N. R. Chiariello. 2007. Feedbacks of Terrestrial Ecosystems to Climate Change*. Annual review of environment and resources 32:1–29. Available from: http://www.annualreviews.org/doi/abs/10.1146/annurev.energy.32.053006.141119 [Accessed 20 February 2018].

Fischer, D. and T. Moriarty (Eds). 2011. Pesticide risk assessment for pollinators: Summary of a SETAC Pellston workshop. 15-21 January 2011, Pensacola, Florida, USA.

Fitzpatrick, Ã., T. E. Murray, R. J. Paxton, and M. J. F. Brown. 2007. Building on IUCN Regional Red Lists to Produce Lists of Species of Conservation Priority: a Model with Irish Bees. Conservation Biology 21: 1324–1332.

Flanders, R. V., W. F. Wehling, and A. L. Craghead. 2003. Laws and regulations on the import, movement and release of bees in the United States. pp. 99-111. In K. Strickler and J. H. Cane (eds.) For Nonnative Crops, Whence Pollinators of the Future? Thomas Say Publications in Entomology: Proceedings. Entomological Society of America, Lanham, MD.

Forrest, J., Inouye, D. W., Thomson, J. D. 2010. Flowering phenology in subalpine meadows: Does climate variation influence community co-flowering patterns? Ecology 91:431–440.

Frankham, R., J. D. Ballou, and D. A. Briscoe. 2010. Introduction to Conservation Genetics Second Edition, Cambridge University Press, 618 pages.

Frankie, G. W., R. W. Thorp, M. Schindler, J. Hernandez, B. Ertter, and M. Rizzardi. 2005. Ecological patterns of bees and their host ornamental flowers in two northern California cities. Journal of the Kansas Entomological Society 78: 227-246.

Franklin, H. J. 1913. The Bombidae of the New World. Transactions of the American Entomological Society 38: 177-486.

Freese, B. and Crouch, M. 2015. Monarchs in peril: Herbicide resistant crops and the decline of monarch butterflies in North America. Center for Food Safety. 88 pp.

Frison, T. H. 1921. New distribution records for North American Bremidae, with the description of a new species (Hym.) Entomological News 32: 144-148.

Frison, T. H. 1923. Systematic and biological notes on bumblebees (Bremidae; Hymenoptera). Transactions of the American Entomological Society 48: 307-326.

Frison, T. H. 1926. Descriptions and records of North American Bremidae together with notes on the synonymy of certain species (Hymenoptera). Transactions of the American Entomological Society 52: 129-145.

Fürst, M. A., D. P. McMahon, J. L. Osborne, R. J. Paxton, and M. J. F. Brown. 2014. Disease associations between honeybees and bumblebees as a threat to wild pollinators. Nature 506:364–366. Available from: http://www.nature.com/nature/journal/v506/n7488/abs/nature12977.html [Accessed 20 February 2018].

Fussell, M., and S. A. Corbet. 1992. Flower usage by bumble-bees: a basis for forage plant management. *Journal of Applied Ecology* 29:451-465.

Gegner, L. 2003. Beekeeping/Apiculture. ATTRA. Available from https://attra.ncat.org/attra-pub/summaries/summary.php?pub=76. [Accessed 25 September 2018].

Geldmann, J. and González-Varo, J. P. 2018. Conserving honey bees does not help wildlife. Science 359:392–393.

Genersch, E., C. Yue, I. Fries, and J. R. de Miranda. 2006. Detection of deformed wing virus, a honey bee viral pathogen, in bumble bees (*Bombus terrestris* and *Bombus pascuorum*) with wing deformities. Journal of Invertebrate Pathology 91:61–63.

Getz, W. M., S. Fortmann-Roe, P. C. Cross, A. J. Lyons, S. J. Ryan, and C. C. Wilmers. 2007. LoCoH: nonparameteric kernel methods for constructing home ranges and utilization distributions. PloS one 2:e207.

Gibson, C., V. Brown, L. Losito, and G. McGavin. 1992. The response of invertebrate assemblies to grazing. Ecography 15: 166-176.

Gill, R. J. and N. E. Raine. 2014. Chronic impairment of bumblebee natural foraging behaviour induced by sublethal pesticide exposure. Functional ecology 28:1459–1471. Available from http://onlinelibrary.wiley.com/doi/10.1111/1365-2435.12292/epdf. [Accessed 28 February 2018].

Gill, R. J., O. Ramos-Rodriguez, and N. E. Raine. 2012. Combined pesticide exposure severely affects individual- and colony-level traits in bees. Nature 491(7422): 105-108.

Gillespie, S. 2010. Factors affecting parasite prevalence among wild bumblebees. Ecological entomology 35:737–747.

Ginsberg, H. S. 1983. Foraging ecology of bees in an old field. Ecology:165–175.

Goka, K. 2010. Introduction to the Special Feature for Ecological Risk Assessment of Introduced Bumblebees: Status of the European bumblebee, *Bombus terrestris*, in Japan as a beneficial pollinator and an invasive alien species. Applied Entomology and Zoology 45:1–6.

Goka, K., Okabe, K., Niwa, S., Yoneda, M. 2000. Parasitic mite infestation in introduced colonies of European bumblebees, *Bombus terrestris*. Japanese Journal of Applied Entomology and Zoology 44(1):47-50.

Goka, K., Okabe, K., Yoneda, M. 2006. Worldwide migration of parasitic mites as a result of bumblebee commercialization. Population Ecology 48:285–291.

Gorbunov, P. S. 1987. Endoparasitic flagellates of the genus *Crithidia* (Trypanosomatidae, Zoomastigophorea) from alimentary canal of bumblebees. Zoologicheskii zhurnal.

Goulson, D. 2003. Conservation of bumblebees. *In:* Species Management: Challenges and Solutions for the 21st Century. ed. by J.M. Baxter and C.A. Galbraith. TSO Scotland, Edinburgh. pp. 477-492.

Goulson, D. 2010. *Bumblebees: behaviour, ecology, and conservation*. Oxford University Press,

New York. 317pp.

Goulson, D. 2015. Neonicotinoids impact bumblebee colony fitness in the field; a reanalysis of the UK's Food & Environment Research Agency 2012 experiment. PeerJ 3:e854.

Goulson, D., and W. O. H. Hughes. 2015. Mitigating the anthropogenic spread of bee parasites to protect wild pollinators. Biological conservation 191:10–19.

Goulson, D., G. C. Lye, and B. Darvill. 2008. Decline and conservation of bumble bees. Annu. Rev. Entomol. 53:191–208.

Goulson, D. and K. R. Sparrow. 2009. Evidence for competition between honeybees and bumblebees; effects on bumblebee worker size. Journal of Insect Conservation 13:177–181.

Goulson, D., J. C. Stout, and A. R. Kells. 2002. Do exotic bumblebees and honeybees compete with native flower-visiting insects in Tasmania? Journal of Insect Conservation 6: 179–189.

Gradish, A. E., C. D. Scott-Dupree, L. Shipp, C. R. Harris, and G. Ferguson. 2009. Effect of reduced risk pesticides for use in greenhouse vegetable production on *Bombus impatiens* (Hymenoptera: Apidae). Pest Management Science 66:142-146.

Graystock, P., E. J. Blane, Q. S. McFrederick, D. Goulson, and W. O. H. Hughes. 2015a. Do managed bees drive parasite spread and emergence in wild bees? International journal for parasitology. Parasites and Wildlife 5(1): 64-75.

Graystock, P., D. Goulson, and W. O. H. Hughes. 2015b. Parasites in bloom: flowers aid dispersal and transmission of pollinator parasites within and between bee species. Proc. R. Soc. B 282:1-6. The Royal Society. Available from http://rspb.royalsocietypublishing.org/content/royprsb/282/1813/20151371.full.pdf. [Accessed 28 February 2018].

Graystock, P., D. Goulson, and W. O. H. Hughes. 2014. The relationship between managed bees and the prevalence of parasites in bumblebees. PeerJ 2:e522. Available from http://dx.doi.org/10.7717/peerj.522.

Graystock, P., K. Yates, B. Darvill, D. Goulson, and W. O. H. Hughes. 2013a. Emerging dangers: deadly effects of an emergent parasite in a new pollinator host. Journal of invertebrate pathology 114:114–119.

Graystock, P., K. Yates, S. E. F. Evison, B. Darvill, D. Goulson, and W. O. H. Hughes. 2013b. The Trojan hives: pollinator pathogens, imported and distributed in bumblebee colonies. The Journal of applied ecology 50:1207–1215. Available from: http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12134/full [Accessed 6 August 2014].

Greene, J. W. 1858. Descriptions of several new hymenopterous insects from the North west coast of America. Annals of Lyceum of Natural History of New York 7: 11-12.

Greene, J. W. 1860. XXI. Review of the American Bombidae, together with a description of several species heretofore undescribed, being a synopsis of this family of Hymenopterous insects thus far known to inhabit North America. Annals of the Lyceum of Natural History of New York 7: 168-176.

Grixti, J. C., L. T. Wong, S. A. Cameron, and C. Favret. 2009. Decline of bumble bees (Bombus) in the North American Midwest. Biological conservation 142:75–84. Available from http://www.sciencedirect.com/science/article/pii/S0006320708003698 [Accessed 5 February 2014].

Hatfield, R, S. Colla, S. Jepsen, L. Richardson, R. Thorp, and S. Foltz Jordan. 2014. Draft IUCN Assessments for North American *Bombus* spp. for the North American IUCN Bumble Bee Specialist Group. The Xerces Society for Invertebrate Conservation, www.xerces.org, Portland, OR.

Hatfield, R., S. Jepsen, E. Mader, S. H. Black, and M. Shepherd. 2012. Conserving Bumble Bees: Guidelines for Creating and Managing Habitat for America's Declining Pollinators. The Xerces Society for Invertebrate Conservation. Available from: http://www.xerces.org/bumblebees/guidelines.

Hatfield, R., Jepsen, S., Thorp, R., Richardson, L. and Colla, S. 2015a. *Bombus crotchii*. The IUCN Red List of Threatened Species 2015: e.T44937582A46440211. http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937582A46440211.en. Downloaded on 9 February 2018.

Hatfield, R., Jepsen, S., Thorp, R., Richardson, L., Colla, S. and Foltz Jordan, S. 2015b. *Bombus occidentalis*. The IUCN Red List of Threatened Species 2015: e.T44937492A46440201. http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937492A46440201.en. Downloaded on 9 February 2018.

Hatfield, R., S. Jepsen, R. Thorp, L. Richardson, and S. Colla, 2015c. *Bombus suckleyi*. The

IUCN Red List of Threatened Species 2015: e.T44937699A46440241. http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937699A46440241.en. Downloaded on 9 February 2018.

Hatfield, R. G., S. Jepsen, M. Vaughan, S. Black, and E. Mader. 2016. An overview of the potential impacts of honey bees to native bees, plant communities, and ecosystems in wild landscapes: Recommendations for land managers. Available from: http://www.xerces.org/wp-content/uploads/2016/09/Xerces_policy_statement_HB_Final.pdf.

Hatfield, R. G., and G. LeBuhn. 2007. Patch and landscape factors shape community assemblage of bumble bees, Bombus spp.(Hymenoptera: Apidae), in montane meadows. Biological conservation 139:150–158.

Hatfield, R. G. Analysis the conservation status of *Bombus occidentalis occidentalis*. 2018a. Unpublished data.

Hatfield, R. G. Analysis the conservation status of *Bombus franklini*. 2018b. Unpublished data.

Hatfield, R.G., S. Colla, S. Jepsen, L. Richardson, R. Thorp. 2018c. Red Listing North America's Bumble Bees *In* Bumblebee Specialist Group Report 2017. Pp. 3-9. Available from: https://bumblebeespecialistgroup.org/wp-content/uploads/2018/02/BBSG-Annual-Report-2017.pdf

Hayes, G. F. and K. D. Holl. 2003. Cattle Grazing Impacts on Annual Forbs and Vegetation Composition of Mesic Grasslands in California. Conservation biology: the journal of the Society for Conservation Biology 17:1694–1702. Blackwell Science Inc. Available from: http://dx.doi.org/10.1111/j.1523-1739.2003.00281.x.

Highfield, A. C., A. El Nagar, L. C. Mackinder, M. L. N. Laure, M. J. Hall, S. J. Martin, and D. C. Schroeder. 2009. Deformed wing virus implicated in overwintering honeybee colony losses. Applied and environmental microbiology 75(22): 7212-7220.

Highland, S. A., and J. A. Jones. 2014. Extinction debt in naturally contracting mountain meadows in the Pacific Northwest, USA: varying responses of plants and feeding guilds of nocturnal moths. Biodiversity and conservation 23:2529–2544. Springer Netherlands. Available from: http://link.springer.com/article/10.1007/s10531-014-0737-z [Accessed 20 February 2018].

Hilburn, D. 2013. Lessons learned from the Wilsonville Bee Kill by Dan Hilburn, Oregon Department of Agriculture. In Oregon Invasive Species Blog. Available at:

http://oregoninvasivespecies.blogspot.com/2013/07/lessons-learned-from-wilsonville-bee.html [Accessed 25 September 2018].

Hines, H. M. and S. D. Hendrix. 2005. Bumble bee (Hymenoptera: Apidae) diversity and abundance in tallgrass prairie patches: effects of local and landscape floral resources. Environmental entomology 34:1477–1484.

Hladik, M. L., M. Vandever, and K. L. Smalling. 2015. Exposure of native bees foraging in an agricultural landscape to current-use pesticides. The Science of the total environment 542:469–477.

Hobbs, G. A. 1968. Ecology of species of *Bombus* (Hymenoptera: Apidae) in southern Alberta. VII. Subgenus *Bombus*. Canadian Entomologist 100: 156-164.

Hoover, S. E. R., J. J. Ladley, A. A. Shchepetkina, M. Tisch, S. P. Gieseg and J. M. Tylianakis. 2012. Warming, CO2, and nitrogen deposition interactively affect a plant-pollinator mutualism. Ecology Letters 15(3): 227-234.

Hopwood J., M. Vaughan, M. Shepherd, E. Lee-Mäder, and S.H. Black. 2016. How Neocicotinoids Can Kill Bees, the Science Behind the Role These Insecticides Play in Harming Bees. Tech. rep., The Xerces Society. Available from: http://www.xerces.org/neonicotinoids-and-bees/ [Accessed 20 February 2018].

Horskins, K. and V. B. Turner. 1999. Resource use and foraging patterns of honeybees, *Apis mellifera*, and native insects on flowers of *Eucalyptus costata*. Australian Journal of Ecololgy 24: 221–27.

Hudewenz, A., and A.-M. Klein. 2013. Competition between honey bees and wild bees and the role of nesting resources in a nature reserve. Journal of Insect Conservation 17:1275–1283.

Hudewenz, A., and A.-M. Klein. 2015. Red mason bees cannot compete with honey bees for floral resources in a cage experiment. Ecology and Evolution 5(21): 5049-5056.

Huntzinger M. 2003. Effects of fire management practices on butterfly diversity in the forested western United States. Biological Conservation 113: 1-12.

Husband, R. W. and R. N. Shina. 1970. A review of the genus *Locustacarus* with a key to the genera of the family Podapolipidae (Acarina), Annals of the Entomological Society of America

63:1152–1162.

Incerti, F., L. Bortolotti, C. Porrini, A. Micciarelli Sbrenna, and G. Sbrenna. 2003. An extended laboratory test to evaluate the effects of pesticides on bumblebees, preliminary results. Bulletin of Insectology 56:159-164.

Inouye, D. W. 2008. Effects of climate change on phenology, frost damage, and floral abundance of montane wildflowers Ecology 89(2):353-362.

[IUCN] International Union for the Conservation of Nature. 2012. Red List categories and criteria: Version 3.1Second. IUCN Species Survival Commision, Gland, Switzerland and Cambridge, UK. Available from: http://www.iucnredlist.org/static/categories_criteria_3_1#introduction [Accessed 20 February 2018].

[IUCN Red List] International Union for the Conservation of Nature. 2016. The IUCN Red List of Threatened Species. Available from http://www.iucnredlist.org/.

Jha, S. 2015. Contemporary human-altered landscapes and oceanic barriers reduce bumble bee gene flow. Molecular Ecology 24:993-1006.

Jha, S. and C. Kremen. 2013. Resource diversity and landscape-level homogeneity drive native bee foraging. Proceedings of the National Academy of Sciences 110:555–558.

Johansen, C. A. and D. F. Mayer. 1990. Pollinator protection: a bee & pesticide handbook. Wicwas Press. Cheshire, Connecticut. 212 pp.

Johnson, M. D. and C. M. Horn. 2008. Effects of rotational grazing on rodents and raptors in a coastal grassland. Western North American Naturalist 68: 444-452.

Kadoya, E. Z. and H. S. Ishii. 2015. Host manipulation of bumble bee queens by Sphaerularia nematodes indirectly affects foraging of non-host workers. Ecology 96:1361–1370. Eco Soc America. Available from http://www.ncbi.nlm.nih.gov/pubmed/26236849.

Kearns, C.A. and D.W. Inouye. 1997. Pollinators, flowering plants, and conservation biology. BioScience 47:297-307.

Kearns, C.A., D.W. Inouye, and N. Waser. 1998. Endangered mutualisms: the conservation of plant–pollinator interactions. Annual Review of Ecology and Systematics 29:83-112.

Kerr, J.T., A. Pindar, P. Galpern, L. Packer, S. G. Potts, S.M., Roberts, P. Rasmont, O. Schweiger, S. R. Colla, L.L. Richardson, and D. L. Wagner. 2015. Climate change impacts on bumblebees converge across continents. Science 349(6244): 177-180.

Kevan, P.G. 1999. Pollinators as bioindicators of the state of the environment: species, activity and diversity. Agriculture Ecosystems and Environment 74:373-393.

Kevan, P.G. 2008. *Bombus franklini*. The IUCN Red List of Threatened Species 2008: e.T135295A4070259. http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T135295A4070259.en. Accessed 9 February 2018.

Kirby, W. 1837. The Insects. *In* Richardson, J., Swainson, W., and Kirby, W. (eds.), Fauna Boreali-Americana, part 4. 325 pp. Josiah Fletcher, Norwich.

Kimoto C. 2010. Effect of livestock grazing on native bees in a Pacific Northwest bunchgrass prairie. MS Thesis, Oregon State University.

Kirilenko, A. and R. S. Hanley. 2007a. Predicting climate change impact on insect biodiversity: comparison of scenarios. pp. 453-457 In Proceedings of the 32nd International Symposium on Remote Sensing of Environment, San Jose, Costa Rica (June 25-29, 2007).

Kirilenko, A. and R. S. Hanley. 2007b. Using multiple methods to predict climate change impacts on bumblebees in North America. pp. 42-47, In Proceedings of the International Conference on Environmental Modeling and Simulation.

Kissinger, C. N., S. A. Cameron, R. W. Thorp, B. White, and L. F. Solter. 2011. Survey of bumble bee (*Bombus*) pathogens and parasites in Illinois and selected areas of northern California and southern Oregon. Journal of invertebrate pathology 107:220–224.

Klein A., B. Vaissiere, J. Cane, I. Steffan-Dewenter, S. Cunningham, C. Kremen, et al. 2007. Importance of pollinators in changing landscapes for world crops. Proceedings of the Royal Society B: Biological Sciences, 274:303-313.

Koppert Biological Systems. 2018. Natural Pollination. https://www.koppert.com/pollination/. [Accessed 19 March 2018].

Kosior, A., W. Celary, P. Olejniczak, J. Fijal, W. Krol, W. Solarz, and P. Plonka. 2007. The decline of the bumble bees and cuckoo bees (Hymenoptera: Apidae: Bombini) of Western and

Central Europe. Oryx 41:79.

Kremen, C., N. M. Williams, R. W. and Thorp. 2002. Crop pollination from native bees at risk from agricultural intensification. Proceedings of the National Academy of Sciences 99(26): 16812-16816.

Kruess, A. and T. Tscharntke. 2002a. Contrasting responses of plant and insect diversity to variation in grazing intensity. Biological Conservation 106: 293-302.

Kruess, A, and T. Tscharntke. 2002b. Grazing intensity and the diversity of grasshoppers, butterflies, and trap-nesting bees and wasps. Conservation Biology 16: 1570-80.

Kudo, G., Y. Nishikawa, T. Kasagi, and S. Kosuge. 2004. Does seed production of spring ephemerals decrease when spring comes early? Ecological Research 19:255–259.

Kwong, W. K. and N. A. Moran. 2016. Gut microbial communities of social bees. Nature Reviews Microbiology 14(6): 374.

LaBerge, W. E. 1980. A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part X. Subgenus *Andrena*. Transactions of the American Entomological Society 106: 395-525.

LaBerge, W. E. 1986. A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part XI. Minor subgenera and subgeneric key. Transactions of the American Entomological Society 111: 441-567.

Lark, T. J., J. M. Salmon, and H. K. Gibbs. 2015. Cropland Expansion Outpaces Agricultural and Biofuel Policies in the United States. Environmental Research Letters 10: 1-11.

Larsson, J. I. 2007. Cytological variation and pathogenicity of the bumble bee parasite *Nosema bombi* (Microspora, Nosematidae). Journal of invertebrate pathology 94:1–11. Available from: http://www.sciencedirect.com/science/article/pii/S002220110600156X [Accessed 6August 2014].

Laycock, I., K. M. Lenthall, A. T. Barratt, and J. E. Cresswell. 2012. Effects of imidacloprid, a neonicotinoid pesticide, on reproduction in work bumble bees (*Bombus terrestris*) Ecotoxicology 21(7): 1937-1945.

Le Féon, V., A. Schermann-Legionnet, Y. Delettre, S. Aviron, R. Billeter, R. Bugter, F. Hendrick, and F. Burel. 2010. Intensification of agriculture, landscape composition and wild bee

communities: A large scale study in four European countries. Agriculture, Ecosystems & Environment 137: 143-150.

Lipa, J. J. and O. Triggiani. 1988. *Crithidia bombi* sp. n. a flagellated parasite of a bumble-bee *Bombus terrestris* L.(Hymenoptera, Apidae). Acta protozoologica 27:287–290.

Lozier, J. D., J. P. Strange, I. J. Stewart, and S. A. Cameron. 2011. Patterns of range-wide genetic variation in six North American bumble bee (Apidae: *Bombus*) species. Molecular Ecology. Retrieved February 1, 2013, from http://onlinelibrary.wiley.com/doi/10.1111/j.1365-294X.2011.05314.x/full.

Macfarlane, R. P., K. D. Patten, L. A. Royce, B. K. W. Wyatt, and D. F. Mayer. 1994. Management potential of sixteen North American bumble bee species. Melanderia 50: 1-12.

Macfarlane, R. P., J. J. Lipa, and H. J. Liu. 1995. Bumble bee pathogens and internal enemies. Bee World 76(3): 130-148.

Mach, B. M., S. Bondarenko, and D. A. Potter. 2017. Uptake and dissipation of neonicotinoid residues in nectar and foliage of systemically treated woody landscape plants. Environmental Toxicology 37(3): 860-870.

Mäder, E., M. Shepherd, M. Vaughan, S. H. Black, and G. LeBuhn. 2011. *Attracting Native Pollinators. Protecting North America's Bees and Butterflies.* 384 pp. North Adams, MA: Storey Publishing.

Maharramov, J. et al. 2013. Genetic variability of the neogregarine *Apicystis bombi*, an etiological agent of an emergent bumblebee disease. PloS one 8:e81475. Available from: http://dx.doi.org/10.1371/journal.pone.0081475. [Accessed 28 February 2018].

Mallick, S. A. and M. M. Driessen. 2009. Impacts of hive honeybees on Tasmanian leatherwood *Eucryphia lucida* Labill.(Eucryphiaceae). Austral Ecology 34:185–195.

Mallinger, R. E., Gaines-Day, H. R., Gratton, C. 2017. Do managed bees have negative effects on wild bees?: A systematic review of the literature. PloS one 12:e0189268.

Manley, R., M. Boots, and L. Wilfert. 2015. REVIEW: Emerging viral disease risk to pollinating insects: ecological, evolutionary and anthropogenic factors. The Journal of applied ecology 52:331–340.

Marletto, F., A. Patetta, and A. Manino. 2003. Laboratory assessment of pesticide toxicity to bumblebees. Bulletin of Insectology 56:155-158.

Maxfield-Taylor, S., K. M. Skyrm, and S. Rao. 2011. First record of *Sphaerularia bombi* (Nematoda: Tylenchida: Sphaerularidae), a parasite of bumble bee queens, in the Pacific Northwest. The Pan-Pacific entomologist 87:134–137.

McArt, S. H., C. Urbanowicz, S. McCoshum, R. E. Irwin, and L.S. Adler. 2017. Landscape predictors of pathogen prevalence and range contractions in US bumblebees. Proceedings of the Royal Society B 284(1867): 1-8.

McFrederick, Q. S. and G. LeBuhn. 2006. Are urban parks refuges for bumble bees *Bombus* spp. (Hymenoptera: Apidae)? *Biological Conservation* 129:372-382.

McMahon, D. P., M. A. Fürst, J. Caspar, P. Theodorou, M. J. F. Brown, and R. J. Paxton. 2015. A sting in the spit: widespread cross-infection of multiple RNA viruses across wild and managed bees. The Journal of Animal Ecology. 84(3): 615-624.

Meehan, T. D., B. P. Werling, D. A. Landis, and C. Gratton. 2011. Agricultural landscape simplification and insecticide use in the Midwestern United States. Proceedings of the National Academy of Sciences of the United States of America 108:11500–11505. Available from http://dx.doi.org/10.1073/pnas.1100751108.

Meeus, I., M. J. F. Brown, D. C. De Graaf, and G. U. Y. Smagghe. 2011. Effects of invasive parasites on bumble bee declines. Conservation biology: the journal of the Society for Conservation Biology 25:662–671.

Memmott J., P. G. Craze, N. M. Waser, and M. V. Price. 2007. Global warming and the disruption of plant-pollinator interactions. Ecology Letters 10:710-717.

Memmott J., N. M. Waser, and M. V. Price. 2004. Tolerance of pollination networks to species extinctions. Proceedings of the Royal Society B 271:2605-2611.

Miller-Struttmann, N. E., J. C. Geib, J. D. Franklin, P. G. Kevan, R. M. Holdo, D. Ebert-May, A. M. Lynn, J. A. Kettenbach, E. Hedrick, and C. Galen. 2015. Functional mismatch in a bumble bee pollination mutualism under climate change. Science 349:1541–1544.

Milliron, H. E. 1971. A monograph of the Western Hemisphere bumblebees. I. The genera *Bombus* and *Megabombus* subgenus *Bombias*. Memoirs of the Entomological Society of Canada

82: 1-80.

Minckley, R. L., J. H. Cane, L. Kervin, and D. Yanega. 2003. Biological impediments to measures of competition among introduced honey bees and desert bees (Hymenoptera: Apiformes). Journal of the Kansas Entomological Society: 306–319.

Mommaerts, V., S. Reynders, J. Boulet, L. Besard, G. Sterk and G. Smagghe. 2010. Risk assessment for side-effects of neonicotinoids against bumblebees with and without impairing foraging behavior. Ecotoxicology 19:207-215.

Mommaerts, V. and G. Smagghe. 2011. Side-Effects of Pesticides on the Pollinator *Bombus*: An Overview. In: Stoytcheva, M. (ed), Pesticides of the Modern World. – Pests Control and Pesticides Exposure and Toxicity Assessment. InTech, Rijeka. 507-552 pp.

Morales, C. L., M. P. Arbetman, S. A. Cameron, and M. A. Aizen. 2013. Rapid ecological replacement of a native bumble bee by invasive species. Frontiers in Ecology and the Environment, 11(10): 529-534.

Morandin, L. A. and C. Kremen. 2013. Hedgerow restoration promotes pollinator populations and exports native bees to adjacent fields. Ecological Applications 23(4): 829-839.

Morandin, L. A., Laverty, T. M., Kevan, P. G., Khosla, S., Shipp, L. 2001. Bumble bee (Hymenoptera : Apidae) activity and loss in commercial tomato greenhouses. Canadian Entomology 133(6):883-93.

Morandin, L. A. and M. L. Winston. 2003. Effects of novel pesticides on bumble bee (Hymenoptera: Apidae) colony health and foraging ability. Environmental Entomology 32(3):555-563.

Morandin, L. A. and M.L. Winston. 2005. Wild bee abundance and seed production in conventional, organic, and genetically modified canola. Ecological applications 15(3): 871-881.

Morkeski, A. and A. L. Averill. 2010. Managed pollinator CAP-coordinated agricultural project: Wild bee status and evidence for pathogen ’spillover’ with honey bees. American Bee Journal 150(11): 1049-1052.

Morkeski, A. and A. Averill. 2012. Wild bee status and evidence for pathogen spillover with honey bees. CAP Updates: 12. Oregon State University Extension. Available online: http://www.extension.org/pages/30998/wild-bee-status-and-evidence-for-pathogen-spillover-

with-honey-bees. [Accessed 19 March 2018].

Morris, M. G. 1967. Differences between invertebrate faunas of grazed and ungrazed chalk grassland. I. Responses of some phytophagous insects to cessation of grazing. Journal of Applied Ecology 4: 459-474.

Mortensen, D. A., J. F. Egan, B. D. Maxwell, M. R. Ryan, and R. G. Smith. 2012. Navigating a critical juncture for sustainable weed management. BioScience 62(1): 75-84.

Motta, E. V. S., K. Raymann, and N. A. Moran. 2018. Glyphosate perturbs the gut microbiota of honey bees. PNAS. 10.1073/pnas.1803880115.

Mullin, C. A., J. Chen, J. D. Fine, M. T. Frazier, and J. L. Frazier. 2015. The formulation makes the honey bee poison. Pesticide Biochemistry and Physiology 120: 27-35.

Murray, T. E., M. F. Coffey, E. Kehoe, and F. G. Horgan. 2013. Pathogen prevalence in commercially reared bumble bees and evidence of spillover in conspecific populations. Biological conservation 159:269–276.

National Research Council. 2007. Status of Pollinators in North America. The National Academies Press, Washington, DC.

NatureServe. 2017a. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. "*Bombus crotchii*". NatureServe, Arlington, Virginia. Available from: http://explorer.natureserve.org. [Accessed 13 February 2018].

NatureServe. 2017b. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. "*Bombus franklini*". NatureServe, Arlington, Virginia. Available from: http://explorer.natureserve.org. [Accessed 13 February 2018].

NatureServe. 2017c. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. "*Bombus occidentalis occidentalis*". NatureServe, Arlington, Virginia. Available from: http://explorer.natureserve.org. [Accessed 13 February 2018].

NatureServe. 2017d. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. "*Bombus occidentalis*". NatureServe, Arlington, Virginia. Available from: http://explorer.natureserve.org. [Accessed 13 February 2018].

NatureServe. 2017e. NatureServe Explorer: An online encyclopedia of life [web application].

Version 7.1. "*Bombus suckleyi*". NatureServe, Arlington, Virginia. Available from: http://explorer.natureserve.org. [Accessed 13 February 2018].

Niwa, S., H. Iwano, S. Asada, M. Matsuurra, and K. Goka. 2004. A microsporidian pathogen isolated from a colony of the European bumblebee, *Bombus terrestris*, and infectivity on Japanese bumblebee. Japanese Journal of Applied Entomology and Zoology 48:60-64 (in Japanese with English abstract).

Noss, R. F., E. T. LaRoe, and J. M. Scott. 1995. Endangered ecosystems of the United States: a preliminary assessment of loss and degradation. US Department of the Interior, National Biological Service Washington, DC, USA. Available from: http://noss.cos.ucf.edu/papers/Noss%20et%20al%201995.pdf.

Öckinger, E. and H. G. Smith. 2007. Semi-natural grasslands as population sources for pollinating insects in agricultural landscapes. Journal of Applied Ecology 44: 50-59.

[ODA] Oregon Department of Agriculture. 2015. Oregon Administrative Rules (OAR 603-057-0388). Available from: http://arcweb.sos.state.or.us/pages/rules/oars_600/oar_603/603_tofc.html [Accessed 25 September 2018].

Ollerton J., R. Winfree, and S. Tarrant. 2011. How many flowering plants are pollinated by animals. Oikos 120:321-326. DOI: 10.1111/j.1600-0706.2010.18644.x

Osborne JL. 2012. Bumblebees and pesticides. Nature: News & Views. Nature 491: 43-45.

Osborne, J. L., A. P. Martin, C. R. Shortall, A. D. Todd, D. Goulson, M. E. Knight, R. J. Hale, and R. A. Sanderson. 2008. Quantifying and comparing bumble bee nest densities in gardens and countryside habitats. Journal of Applied Ecology 45:784-792.

Otterstatter, M. C., and J. D. Thomson. 2008. Does pathogen spillover from commercially reared bumble bees threaten wild pollinators? PloS one 3:e2771.

Otterstatter, M. C., and T. L. Whidden. 2004. Patterns of parasitism by tracheal mites (*Locustacarus buchneri*) in natural bumble bee populations. Apidologie 35:351–357. Available from: http://www.edpsciences.org/10.1051/apido:2004024. [Accessed 28 February 2018].

Otterstatter, M. C., R. J. Gegear, S. R. Colla, and J. D. Thomson. 2005. Effects of parasitic mites and protozoa on the flower constancy and foraging rate of bumble bees. Behavioral ecology and sociobiology 58:383–389. Available from: http://link.springer.com/article/10.1007/s00265-005-

0945-3 [Accessed 20 February 2018].

Otti, O., and P. Schmid-Hempel. 2007. *Nosema bombi*: A pollinator parasite with detrimental fitness effects. Journal of invertebrate pathology 96:118–124.

Otti, O. and P. Schmid-Hempel. 2008. A field experiment on the effect of *Nosema bombi* in colonies of the bumblebee *Bombus terrestris*. Ecological entomology 33:577–582.

Paini, D. R. and J. D. Roberts. 2005. Commercial honey bees (*Apis mellifera*) reduce the fecundity of an Australian native bee (*Hylaeus alcyoneus*). Biological conservation 123:103–112.

Panzer, R. 2002. Compatibility of prescribed burning with the conservation of insects in small, isolated prairie reserves. Conservation Biology 16:1296–1307.

Parry, M. L., O. F. Canziani, J. P. Palutikof, P. J. van der Linden, and C. E. Hanson. 2007. IPCC, 2007: climate change 2007: impacts, adaptation and vulnerability. Contribution of working group II to the fourth assessment report of the intergovernmental panel on climate change. Cambridge University Press, Cambridge.

Paton, D. C. 1990. Budgets for the use of floral resources in mallee heath. *In* The Mallee Lands: A Conservation Perspective, eds. J. C. Noble, P. J. Joss, G. K. Jones, Melbourne: CSIRO. 189–93 pp.

Paton, D. C. 1993. Honeybees in the Australian environment. Bioscience **43**:95–103.

Paton, D. C. 1996. Overview of feral and managed honeybees in Australia: distribution, abundance, extent of interactions with native biota, evidence of impacts and future research. Australian Nature Conservation Agency, Canberra, Australian Capital Territory. 77 pp.

Paxton, R. J. 2010. Does infection by *Nosema ceranae* cause “Colony Collapse Disorder” in honey bees (*Apis mellifera*)? Journal of Apicultural Research 49:80–84.

Pisa, L. W. et al. 2014. Effects of neonicotinoids and fipronil on non-target invertebrates. Environmental Science and Pollution Research International. Environmental Science and Pollution Research 22(1): 68-102.

Plath, O. E. 1922. Notes on the nesting habits of several North American bumblebees. Psyche 29(5-6):189-202.

Plath, O. E. 1927. Notes on the nesting habits of some of the less common New England bumblebees. Psyche 34: 122-128.

Pleasants, J. M. 1981. Bumblebee response to variation in nectar availability. Ecology:1648–1661.

Pleasants, J. M. and K. S. Oberhauser. 2013. Milkweed loss in agricultural fields because of herbicide use: effect on the monarch butterfly population. Insect conservation and diversity / Royal Entomological Society of London 6:135–144.

Plischuk, S. et al. 2009. South American native bumblebees (Hymenoptera: Apidae) infected by *Nosema ceranae* (Microsporidia), an emerging pathogen of honeybees (*Apis mellifera*) Environmental Microbiology Reports 1(2): 131-135.

Plischuk, S., M. E. Pocco, and C. E. Lange. 2013. The tracheal mite *Locustacarus buchneri* in South American native bumble bees (Hymenoptera: Apidae). Parasitology International 62:505–507.

Plowright, R. C. and W. P. Stephen. 1980. The taxonomic status of *Bombus franklini* (Hymenoptera: Apidae). Canadian Entomologist 112: 475-479.

Radeloff, V. C. et al. 2018. Rapid growth of the US wildland-urban interface raises wildfire risk. Proceedings of the National Academy of Sciences 201718850; DOI: 10.1073/pnas.1718850115.

Rasmont, P., A. Pauly, M. Terzo, S. Patiny, D. Michez, S. Iserbyl, Y. Barbier, and E. Haubruge. 2006. The survey of wild bees (Hymenoptera, Apoidea) in Belgium and France. p.18 *In* Status of the World's Pollinators. Food and Agriculture Organization of the United Nations, Rome.

Rasmont, P. and S. Iserbyt. 2012. The Bumblebees Scarcity Syndrome: Are heat waves leading to local extinctions of bumblebees (Hymenoptera: Apidae: Bombus)? Annales de la Société Entomologique de France. 48(3-4): 275–280. Available from: http://www.tandfonline.com/doi/abs/10.1080/00379271.2012.10697776. [Accessed 1 March 2018].

Richardson, L. 2014. Data Contributors. Available from http://www.leifrichardson.org/bbna.html [Accessed 23 September 2015].

Richardson, L. 2017. Unpublished database. Information on database and data contributors Available from: http://www.leifrichardson.org/bbna.html [Accessed 22 February 2017).

Rickman, T. 2017. U.S. Forest Service — Eagle Lake Ranger District *Bombus occidentalis* observations for 2013 and 2014. Unpublished Data.

Rogers, S. R., P. Cajamarca, D. R. Tarpy, and H. J. Burrack. 2013. Honey bees and bumble bees respond differently to inter-and intra-specific encounters. Apidologie 44:621–629.

Roland, J. and S. F. Matter. 2007. Encroaching forests decouple alpine butterfly population dynamics. Proceedings of the National Academy of Sciences 104:13702–13704.

Rundlöf, M. et al. 2015. Seed coating with a neonicotinoid insecticide negatively affects wild bees. Nature 521:77–80.

Roubik, D. W. 2009. Ecological impact on native bees by the invasive Africanized honey bee. Acta Biológica Colombiana 14:115–124.

Rusterholz, H. P. and Baur, B. 2010. Delayed response in a plant–pollinator system to experimental grassland fragmentation. Oecologia 163: 141-152.

Rutrecht, S. T. and M. J. F. Brown. 2008. The life-history impact and implications of multiple parasites for bumble bee queens. International journal for parasitology 38:799–808.

Rutrecht, S. T. and M. J. F. Brown. 2009. Differential virulence in a multiple-host parasite of bumble bees: resolving the paradox of parasite survival? Oikos 118:941–949.

Sánchez-Bayo, F., D. Goulson, F. Pennacchio, F. Nazzi, K. Goka, and N. Desneux. 2016. Are bee diseases linked to pesticides?—A brief review. Environment International 89: 7-11.

Sachman-Ruiz, B., V. Narváez-Padilla, and E. Reynaud. 2015. Commercial *Bombus impatiens* as reservoirs of emerging infectious diseases in central México. Biological invasions:1–11. Springer International Publishing. Available from http://link.springer.com/article/10.1007/s10530-015-0859-6 [Accessed 1 March 2018].

Saunders, S., C. Montgomery, and T. Easley. 2008. Hotter and drier: the West's changed climate. Prepared for The Rocky Mountain Climate Organization and Natural Resources Defense Council. Page 64. Available from: http://www.nrdc.org/globalWarming/west/west.pdf [Accessed 20 February 2018].

Schmid-Hempel, P. 2001. On the evolutionary ecology of host–parasite interactions: addressing the question with regard to bumblebees and their parasites. Die Naturwissenschaften 88:147–158.

Schmid-Hempel, P. and R. Loosli. 1998. A contribution to the knowledge of *Nosema* infections in bumble bees, *Bombus* spp. Apidologie 29:525–535. Available from: http://hal.archives-ouvertes.fr/docs/00/89/15/54/PDF/hal-00891554.pdf [Accessed 1 March 2018].

Schmid-Hempel, R. and Tognazzo, M. 2010. Molecular divergence defines two distinct lineages of *Crithidia bombi* (Trypanosomatidae), parasites of bumblebees. Journal of Eukaryotic Microbiology 57(4): 337-345.

Schmid-Hempel, R., M. Eckhardt, D. Goulson, D. Heinzmann, C. Lange, S. Plischuk, L. R. Escudero, R. Salathé, J. J. Scriven, and P. Schmid-Hempel. 2014. The Invasion of Southern South America by Imported Bumblebees and Associated Parasites. The Journal of Animal Ecology 83 (4): 823–37.

Schmidt, N. M., H. Olsen, and H. Leirs. 2009. Livestock grazing intensity affects abundance of Common shrews (*Sorex araneus*) in two meadows in Denmark. BMC Ecology 9:2doi:10.1186/1472-6785-9-2. Available from: http://www.biomedcentral.com/1472-6785/9/2 [Accessed 20 February 2018].

Scholl, A., R. W. Thorp, and E. Obrecht. 1992. The genetic relationship between *Bombus franklini* (Frison) and other taxa of the subgenus *Bombus* s. str. (Hymenoptera: Apidae). Pan-Pacific Entomologist 68: 46-51.

Schultz, C. B. and E. E. Crone. 1998. Burning prairie to restore butterfly habitat: a modeling approach to management tradeoffs for the Fender's blue. Restoration Ecology 6: 244-252.

Schwarz, R. S. N. A. Moran, and J. D. Evans. 2016. Early gut colonizers shape parasite susceptibility and microbiota composition in honey bee workers. Proceedings of the National Academy of Sciences 113(33): 9345-9350.

Scohier, A., A. Ouin, A. Farruggia, and B. Dumont. 2012. Is there a benefit of excluding sheep from pastures at flowering peak on flower-visiting insect diversity? Journal of Insect Conservation 17(2): 287-294.

Scott-Dupree, C. D., L. Conroy, and C. R. Harris. 2009. Impact of currently used or potentially

useful insecticides for canola agroecosystems on *Bombus impatiens* (Hymenoptera: Apidae), *Megachile rotundata* (Hymenoptera: Megachilidae), and *Osmia lignaria* (Hymenoptera: Megachilidae). Journal of Economic Entomology 102:177-182.

Scullen, H. A. 1927. Bees belonging to the family Bremidae taken in western Oregon, with notes. Pan-Pacific Entomologist Pan-Pacific Entomologist4(2): 69-76, 121-128.

Scursoni, J., F. Forcella, J. Gunsolus, M. Owen, R. Oliver, R. Smeda, and R. Vidrine. 2006. Weed diversity and soybean yield with glyphosate management along a north-south transect in the United States. Weed Science 54:713–719.

Shavit, O., A. Dafni, and G. Ne'eman. 2009. Competition between honeybees (*Apis mellifera*) and native solitary bees in the Mediterranean region of Israel—Implications for conservation. Israel Journal of Plant Sciences 57:171–183.

Sheffield, C. S., L. Richardson, S. Cannings, H. Ngo, J. Heron, P. H. Williams. 2016. Biogeography and designatable units of *Bombus occidentalis* Greene and *B. terricola* Kirby (Hymenoptera: Apidae) with implications for conservation status assessments. Journal of Insect Conservation: 1–11.

Shepherd, M., S. L. Buchmann, M. Vaughan, and S. H. Black. 2003. Pollinator Conservation Handbook. The Xerces Society, Portland, Oregon.

Shykoff, J. A., and P. Schmid-Hempel. 1991. Parasites delay worker reproduction in bumblebees: consequences for eusociality. Behavioral ecology: official journal of the International Society for Behavioral Ecology 2:242–248.

Singh, R., A. L. Levitt, E. G. Rajotte, E. C. Holmes, N. Ostiguy, W. I. Lipkin, A. L. Toth, D. L. Cox-Foster, and Others. 2010. RNA viruses in hymenopteran pollinators: evidence of inter-taxa virus transmission via pollen and potential impact on non-Apis hymenopteran species. PloS one 5:e14357.

Sjodin, N. E. 2007. Pollinator behavioural responses to grazing intensity. Biodiversity Conservation 16:2103-2121.

Skinner, C. N. 1995. Change in spatial characteristics of forest openings in the Klamath Mountains of northwestern California, USA. Landscape ecology 10:219–228. Available from: http://www.springerlink.com/index/T4U3205640483310.pdf [Accessed 20 February 2018].

Sladen, F. L. W. 1912. The Humblebee: Its life history and how to domesticate it. Macmillan and Co., London 283p.

Sleeter, B. M. 2016. Central Valley Report. U.S. Geological Survey, Western Geographic Science Center, Menlo Park, CA. Available from: https://landcovertrends.usgs.gov/west/eco7Report.html. [Accessed 20 March 2018].

Smallidge, P. J. and D. J. Leopold. 1997. Vegetation management for the maintenance and conservation of butterfly habitats in temperate human-dominated habitats. Landscape and Urban Planning 38:259-280.

Sprayberry, J. D., K.A. Ritter, and J.A. Riffell. 2013. The Effect of olfactory exposure to non-insecticidal agrochemicals on bumblebee foraging behavior. PloS one 8(10): e76273.

Stanley, D. A., M. P. Garratt, J. B. Wickens, V. J. Wickens, S. G. Potts, and N. E. Raine. 2015a. Neonicotinoid pesticide exposure impairs crop pollination services provided by bumblebees. Nature 528(7583): 548-550.

Stanley, D. A., A. L. Russell, S. J. Morrison, C. Rogers, and N. E. Raine. 2016. Investigating the impacts of field-realistic exposure to a neonicotinoid pesticide on bumblebee foraging, homing ability and colony growth. Journal of Applied Ecology 53(5): 1440-1449.

Stanley, D. A., K. E. Smith and N.E. Raine. 2015b. Bumblebee learning and memory is impaired by chronic exposure to a neonicotinoid pesticide. Scientific Reports 5(16508): 1-10.

State of Massachusetts. 2018. General Laws: CHAPTER 128, Section 35. Available from https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXIX/Chapter128/Section35. [Accessed 25 September 2018].

State of Minnesota. 2017. 17.445 INSPECTIONS AND SERVICES; FEES. Available from https://www.revisor.mn.gov/statutes/cite/17.445 [Accessed 25 September 2018].

Steffan-Dewenter, I. and T. Tscharntke. 2000. Resource overlap and possible competition between honey bees and wild bees in central Europe. Oecologia 122:288–296.

Stephen, W. P. 1957. Bumble bees of western America (Hymenoptera: Apoidea). Oregon State College Agr. Exp. Sta.: Tech. Bull. No. 40. 163pp.

Stoner, K. J. L., and A. Joern. 2004. Landscape vs. local habitat scale influences to insect

communities from tallgrass prairie remnants. Ecological applications: a publication of the Ecological Society of America 14:1306–1320.

Stoner, K. A. 2016. Current pesticide risk assessment protocols do not adequately address differences between honey bees (*Apis mellifera*) and bumble bees (*Bombus* spp.). Frontiers in Environmental Science 4: 79.

Sugden, E. 1985. Pollinators of *Astragalus monoensis* Barneby (Fabaceae) - New host records - Potential impact of sheep grazing. Great Basin Naturalist 45: 299-312.

Suhonen, J., J. Rannikko, and J. Sorvari. 2015. The Rarity of Host Species Affects the Co-Extinction Risk in Socially Parasitic Bumblebee *Bombus* (*Psithyrus*) Species. Annales zoologici Fennici 52:236–242.

Tasei, J. N., J. Lerin, and G. Ripault. 2000. Sub-lethal effects of imidacloprid on bumblebees, *Bombus terrestris* (Hymenoptera: Apidae), during a laboratory feeding test. Pest Management Science 56:784-788.

Tepedino, V. J., D. G. Alston, B. A. Bradley, T. R. Toler, and T. L. Griswold. 2007. Orchard pollination in Capitol Reef National Park, Utah, USA. Honey bees or native bees? Biodiversity and conservation 16: 3083–3094.

Thompson, H. M. and L. V. Hunt. 1999. Extrapolating from honeybees to bumblebees in pesticide risk assessment. Ecotoxicology 8(3): 147-166.

Thomson, D. 2004. Competitive Interactions between the Invasive European Honey Bee and Native Bumble Bees. Ecology 85:pp. 458–470.

Thomson, D. M. 2006. Detecting the effects of introduced species: a case study of competition between *Apis* and *Bombus*. Oikos 114:407–418.

Thomson, J. D. 2010. Flowering phenology, fruiting success and progressive deterioration of pollination in an early-flowering geophyte. Philosophical Transactions of the Royal Society B: Biological Sciences 365:3187–3199.

Thorp, R. W. 1970. The type locality of *Bombus franklini* and notes on putative Arizona records of other Bombini (Hymenoptera: Apidae). Pan-Pacific Entomologist 46: 177-180.

Thorp, R. W. 1996. Resource overlap among native and introduced bees in California. Pages

143–152. Linnean Society Symposium Series.

Thorp, R. W. 1999. Franklin's bumble bee, *Bombus franklini* (Frison 1921): a species of special concern. Unpublished Report to USDA Forest Service, Ashland. OR on 1998 season (submitted 23 Nov 99).

Thorp, R. W. 2001. Franklin's bumble bee, *Bombus franklini* (Frison 1921): a species of special concern. Unpublished Report to US Fish and Wildlife Service, Portland, OR on 1999-2000 seasons (submitted 14 May 2001).

Thorp, R. W. 2004. Franklin's bumble bee, *Bombus* (*Bombus*) *franklini* (Frison). Unpublished Report to US Fish and Wildlife Service, Portland, OR on 2001-2003 seasons (submitted 29 June 2004).

Thorp, R. W. 2005a. Franklin's bumble bee, *Bombus* (*Bombus*) *franklini* (Frison). Unpublished Report to US Fish and Wildlife Service, Portland, OR on 2004 season (submitted 29 March 2005).

Thorp, R. W. 2005b. Franklin's bumble bee, *Bombus* (*Bombus*) *franklini* (Frison). Unpublished Report to US Fish and Wildlife Service, Portland, OR on 2005 season (submitted 7 November 2005).

Thorp, R. W. 2005c. Species Profile: *Bombus franklini*. *In* Shepherd, M. D., D. M. Vaughan, and S. H. Black (Eds). Red List of Pollinator Insects of North America. CD-ROM Version 1 (May 2005). Portland, OR: The Xerces Society for Invertebrate Conservation. Available from: http://www.xerces.org/wp-content/uploads/2011/02/bombus_franklini.pdf [Accessed 20 February 2018].

Thorp, R. W. 2008. Franklin's Bumble Bee, *Bombus* (*Bombus*) *franklini* (Frison) (Hymenoptera: Apidae), Report on 2006-2007 Seasons (Submitted 10 March 2008).

Thorp, R. W., D. S. Horning, Jr., and L. L. Dunning. 1983. Bumble bees and cuckoo bumble bees of California. Bulletin of the California Insect Survey 23: 1-79.

Thorp, R. W., S. Jepsen, S. F. Jordan, E. Evans, and S. H. Black. 2010. Petition to list Franklin's bumble bee as an Endangered Species under the U.S. Endangered Species Act, Submitted by The Xerces Society for Invertebrate Conservation. Available from: http://www.xerces.org/wp-content/uploads/2010/06/bombus-franklini-petition.pdf. [Accessed 20 March 2018].

Thorp, R. W., A. M. Wenner, and J. F. Barthell. 2000. Pollen and nectar resource overlap among bees on Santa Cruz Island. Pages 261–267 *In*: Proceedings of the Fifth California Islands Symposium (Browne et al., eds).

[USDA] U.S. Department of Agriculture. 2014. Pest Risk Assessment for Bumble Bees from Canada. February, 2014. Version 1.1. 36 pp.

[USDA] U.S. Department of Agriculture. Animal and Plant Health Inspection Service. U.S. Regulated Plant Pest Table. 2018. Available from https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/rppl/rppl-table. [Accessed 25 September 2018].

[U.S. EPA] United States Environmental Protection Agency. 2000. *Effect of 3,6-Dichloro-2methyoxybenzoic acid on Apis mellifera Mortality*; U.S. Environmental Protection Agency, Office of Prevention, Pesticides, and Toxic Substances, Office of Pesticide Programs, Environmental Fate and Effects Division, U.S. Government Printing Office: Washington, DC.

[U.S. EPA] United States Environmental Protection Agency. 2012, May 10. OCSPP 850.3020: Honey Bee Acute Contact Toxicity Test [EPA 712-C-019]. Available from http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPPT-2009-0154-0016. [Accessed 25 September 2018].

[U.S. EPA] United States Environmental Protection Agency. 2013. Available from: http://www2.epa.gov/sites/production/files/2013-11/documents/bee-label-info-ltr.pdf. [Accessed 25 September 2018].

[U.S. EPA] United States Environmental Protection Agency. 2014, June 19. Guidance for Assessing Pesticide Risks to Bees. Available from http://www2.epa.gov/sites/production/files/2014-06/documents/pollinator_risk_assessment_guidance_06_19_14.pdf. [Accessed 25 September 2018].

[USFS] U.S. Department of Agriculture Forest Service. 2013. Region 5 Forester's 2013 Sensitive Animal Species List. Available from: https://www.fs.usda.gov/main/r5/plants-animals/wildlife. [Accessed 13 February 2018].

[USFWS] U.S. Fish and Wildlife Service. 2011. Endangered and Threatened Wildlife and Plants; 90-Day Findings on a Petition to List the Franklin's Bumble Bee as Endangered. 76 FR 56381-56391. September 13, 2011.

[USFWS] U.S. Fish and Wildlife Service. 2016. Endangered and Threatened Wildlife and Plants;

90-Day Findings on 29 Petitions. 81 FR 14058 14072. March 16, 2016.

[USGS] United States Geological Survey. 2014. An Overview Comparing Results from Two Decades of Monitoring for Pesticides in the Nation's Streams and Rivers, 1992–2001 and 2002–2011. National Water-Quality Assessment (NAWQA) Project. Available from: https://pubs.usgs.gov/sir/2014/5154/pdf/sir2014-5154.pdf. [Accessed 4 October 2018].

[USGS] United States Geological Survey. 2017a. Estimated Annual Agricultural Pesticide Use. Pesticide Use Maps: 2,4-D. National Water-Quality Assessment (NAWQA) Project. Available from: http://water.usgs.gov/nawqa/pnsp/usage/maps/show_map.php?year=2015&map=24D&hilo=L&disp=2,4-D [Accessed 9 March 2018].

[USGS] United States Geological Survey. 2017b. Estimated Annual Agricultural Pesticide Use. Pesticide Use Maps: dicamba. National Water-Quality Assessment (NAWQA) Project. Available from: https://water.usgs.gov/nawqa/pnsp/usage/maps/show_map.php?year=2015&map=DICAMBA&hilo=L&disp=Dicamba [Accessed 9 March 2018].

[USGS] United States Geological Survey. 2017c. Estimated Annual Agricultural Pesticide Use. Pesticide Use Maps. National Water-Quality Assessment (NAWQA) Project. Available from: https://water.usgs.gov/nawqa/pnsp/usage/maps/compound_listing.php. [Accessed 9 March 2018].

Vandame, R., and L. P. Belzunces. 1998. Joint actions of deltamethrin and azole fungicides on honey bee thermoregulation. Neuroscience letters 251:57–60.

Van der Steen, J. J. M. 2008. Infection and transmission of *Nosema bombi* in *Bombus terrestris* colonies and its effect on hibernation, mating and colony founding. Apidologie 39:273–282.

van Wilgenburg, E., G. Driessen, and L. W. Beukeboom. 2006. Single locus complementary sex determination in Hymenoptera: an "unintelligent" design? Frontiers in Zoology 3(1): 1-15. Available from: http://www.frontiersinzoology.com/content/3/1/1. [Accessed 20 March 2018].

Vaughan, M., B. E. Vaissi`ere, G. Maynard, M. Kasina, R. C. F. Nocelli, C. Scott-Dupree, E. Johansen, C. Brittain, M. Coulson, and A. Dinter. 2014. Overview of Non-Apis Bees. D. Fischer and T. Moriarty, editors. Pesticide Risk Assessment for Pollinators. pp. 5-18.

Vazquez, D. P. and D. Simberloff. 2003. Changes in interaction biodiversity induced by an introduced ungulate. Ecology Letters 6: 1077-1083.

Velthius, H. H. W. and A. Van Doorn. 2006. A century in advances in bumblebee domestication and the economic and environmental aspects of its commercialization for pollination. Apidologie 37:421-451.

Walther-Hellwig, K., G. Fokul, R. Frankl, R. Büchler, K. Ekschmitt, and V. Wolters. 2006. Increased density of honeybee colonies affects foraging bumblebees. Apidologie 37:517–532.

Wenner, A. M. and R. W. Thorp. 1994. Removal of feral honey bee (*Apis mellifera*) colonies from Santa Cruz Island. Pages 513–522. The fourth California islands symposium: update on the status of resources.

Westphal, C., I. Steffan-Dewenter, and T. Tscharntke. 2003. Mass flowering crops enhance pollinator densities at a landscape scale. Ecology Letters 6(11): 961-965.

Westphal, C., I. Steffan-Dewenter, and T. Tscharntke. 2009. Mass flowering oilseed rape improves early colony growth but not sexual reproduction of bumblebees. Journal of Applied Ecology 46: 187-193.

Whitehorn, P. R., S. O'Connor, F. L. Wackers, and D. Goulson. 2012. Neonicotinoid pesticide reduces bumble bee colony growth and queen production. Science 10.1126/science.1215025.

Whitehorn, P. R., M. C. Tinsley, M. J. F. Brown, B. Darvill, and D. Goulson. 2009. Impacts of inbreeding on bumblebee colony fitness under field conditions. BMC Evolutionary Biology 9:152.

Whitehorn, P. R., M. C. Tinsley, M. J. F. Brown, B. Darvill, and D. Goulson. 2011. Genetic diversity, parasite prevalence and immunity in wild bumblebees. Proceedings of the Royal Society B 278:1195–1202. Available from: http://dx.doi.org/10.1098/rspb.2010.1550. [Accessed 1 March 2018].

Whitehorn, P. R., M. C. Tinsley, M. J. F. Brown, B. Darvill, and D. Goulson. 2014. Genetic diversity and parasite prevalence in two species of bumblebee. Journal of Insect Conservation 18:667–673.

Whittington, R. and Winston, M. L. 2003. Effects of *Nosema bombi* and its treatment fumagillin on bumble bee (*Bombus occidentalis*) colonies. Journal of Invertebrate Pathology 84(1): 54-58.

Whittington, R., M. L. Winston, C. Tucker, and A. L. Parachnowitsch. 2004. Plant-species

identity of pollen collected by bumblebees placed in greenhouses for tomato pollination. Canadian journal of plant science. Revue Canadienne de Phytotechnie 84:599–602.

Wieczorek, J., Q. Guo, and R. Hijmans. 2004. The point-radius method for georeferencing locality descriptions and calculating associated uncertainty. International journal of geographical information science 18:745–767.

Williams, P. H. 1986. Environmental change and the distributions of British bumble bees (*Bombus* Latr.). Bee World 67:50–61.

Williams, P. H. 1991. The bumble bees of the Kashmir Himalaya (Hymenoptera: Apidae, Bombini). Bulletin of the British Museum of Natural History (Entomology) 60: 1-204.

Williams, P. H. 1998. An annotated checklist of bumble bees with an analysis of patterns of description (Hymenoptera: Apidae, Bombini). Bulletin of the Natural History Museum, London (Ent.) 67:79-152. Updated at: www.nhm.ac.uk/research-curation/projects/bombus/. [Accessed 28 February 2018].

Williams, P. H., M. B. Araújo, and P. Rasmont. 2007. Can vulnerability among British bumblebee (*Bombus*) species be explained by niche position and breadth? Biological Conservation **138**:493–505.

Williams P. H., M. J. F. Brown, J. C. Carolan, J. An, D. Goulson, A. Murat Ayetkin, L. R. Best, A. M. Byvaltsev, B. Cederberg, R. Dawson, J. Huang, M. Ito, A. Monfared, R. H. Raina, P. Schmid-Hempel, C. S. Sheffield, P. Sima, and Z. Xie. 2012. Unveiling cryptic species of the bumblebee subgenus *Bombus* s. str. Worldwide with COI barcodes (Hymenoptera: Apidae). Systematics and Biodiversity. Available from: http://dx.doi.org/10.1080/14772000.2012.664574 [Accessed 20 February 2018].

Williams, P. H., S. A. Cameron, H. M. Hines, B. Cederberg, and P. Rasmont. 2008a. A simplified subgeneric classification of the bumblebees (genus *Bombus*). Apidologie 39:46–74.

Williams, P. S. Colla, and Z. Xie. 2009. Bumblebee vulnerability: Common correlates of winners and losers across three continents. Conservation Biology: The Journal of the Society for Conservation Biology 23:931–940.

Williams, P. H. and J. L. Osborne. 2009. Bumblebee vulnerability and conservation world-wide. Apidologie 40:367–387.

Williams, G. R., A. B. A. Shafer, R. E. L. Rogers, D. Shutler, and D. T. Stewart. 2008b. First detection of *Nosema ceranae*, a microsporidian parasite of European honey bees (*Apis mellifera*), in Canada and central USA. Journal of invertebrate pathology 97:189–192.

Williams, P. H., R. W. Thorp, L. L. Richardson, and S .R. Colla. 2014. The Bumble bees of North America: An Identification guide. Princeton University Press, Princeton.

Wills, R. T., Lyons, M. N., and Bell, D. T. 1990. The European honey bee in Western Australian Kwongan: foraging preferences and some implications for management. Proceedings of the Ecological Society of Australia 16:167–76.

Winfree, R., N. M. Williams, H. Gaines, J. S. Ascher, C. and Kremen, C. 2008. Wild bee pollinators provide the majority of crop visitation across land-use gradients in New Jersey and Pennsylvania, USA. Journal of Applied Ecology 45(3): 793-802.

Wisk, J. D. et al. 2014. Assessing Exposure of Pesticides to Bees. *In* Pesticide Risk Assessment for Pollinators. Eds: D. Fischer and T. Moriarty, John Wiley & Sons, Inc., Hoboken, NJ, USA. 45-74 pp.

Wratt, E. C. 1968. The pollinating activities of bumble bees and honey bees in relation to temperature, competing forage plants, and competition from other foragers. Journal of Apicultural Research 7:61–6.

Xerces Society, Natural Resources Defense Council, Defenders of Wildlife, and Dr. Robbin Thorp. 2010. Petition to the USDA-APHIS seeking regulation of bumble bee movement. 26 pp. Available from: http://www.xerces.org/petition/xerces-bumblebee-petition-to-aphis.pdf. [Accessed 25 September 2018].

Xerces Society, Natural Resources Defense Council, Defenders of Wildlife, and Dr. Robbin Thorp. 2013, October 29. Letter to Secretary Vilsack regarding January 2010 petition to regulate the movement of commercial bumble bees. 4 pp.

Xerces Society, Natural Resources Defense Council, Defenders of Wildlife, and Dr. Robbin Thorp. 2014a, January 16. Letter to Secretary Vilsack regarding January 2010 petition to regulate the movement of commercial bumble bees. 2 pp.

Xerces Society, Natural Resources Defense Council, Defenders of Wildlife, and Dr. Robbin Thorp. 2014b, August 26. Letter to Osama El-Lissy regarding meeting to regulate commercial bumble bees. 16 pp.

Xerces Society. 2012. Database of records from Bumble Bee Citizen Monitoring Project (2008-2012). Maintained by Rich Hatfield, Xerces Society.

Xerces Society, Wildlife Preservation Canada, York University, The Montreal Insectarium, The London Natural History Museum, BeeSpotter. 2017. Data accessed from Bumble Bee Watch, a collaborative website to track and conserve North America's bumble bees. Available from: http://www.bumblebeewatch.org/app/#/bees/lists [Accessed 22 February 2017].

Xie, Z., P. Williams, and Y. Tang. 2008. The effect of grazing on bumblebees in the high rangelands of the eastern Tibetan Plateau of Sichuan. Journal of Insect Conservation 12(6): 695-703.

Yoneda, M., H. Furuta, Y. Kanbe, K. Tsuchida, K. Okabe, and K. Goka. 2008. Reproduction and transmission within a colony of bumblebee tracheal mite *Locustacarus buchneri* (Acari: Podapolipidae) in *Bombus terrestris* (Hymenoptera: Apidae). Applied Entomology and Zoology 43:391–395. Available from: http://jlc.jst.go.jp/JST.JSTAGE/aez/2008.391?from=Google. [Accessed 1 March 2018].

Zald, H. S. J., T. A. Spies, M. Huso, and D. Gatziolis. 2012. Climatic, landform, microtopographic, and overstory canopy controls of tree invasion in a subalpine meadow landscape, Oregon Cascades, USA. Landscape ecology (27): 1197-1212. Available from: http://bit.ly/2okar3v [Accessed 20 February 2018].

Zayed, A. 2009. Bee genetics and conservation. Apidologie 40:237–262.

Zayed, A. and L. Packer. 2005. Complementary sex determination substantially increases extinction proneness of haplodiploid populations. Proceedings of the National Academy of Sciences of the United States of America 102:10742–10746.

Zhu, W., D. R. Schmehl, C. A. Mullin, and J. L. Frazier. 2014. Four common pesticides, their mixtures and a formulation solvent in the hive environment have high oral toxicity to honey bee larvae. PloS one 9:e77547. Available from http://dx.doi.org/10.1371/journal.pone.0077547. [Accessed 25 September 2018].

Personal Communications

Rickman, T. 2017. District Wildlife Biologist at US Forest Service, Mt. Lassen National Forest. Personal Communication with Rich Hatfield, Xerces Society. 20 August 2017.

Thorp, R. W. 2013. Professor emeritus, University of California, Davis. Personal communication

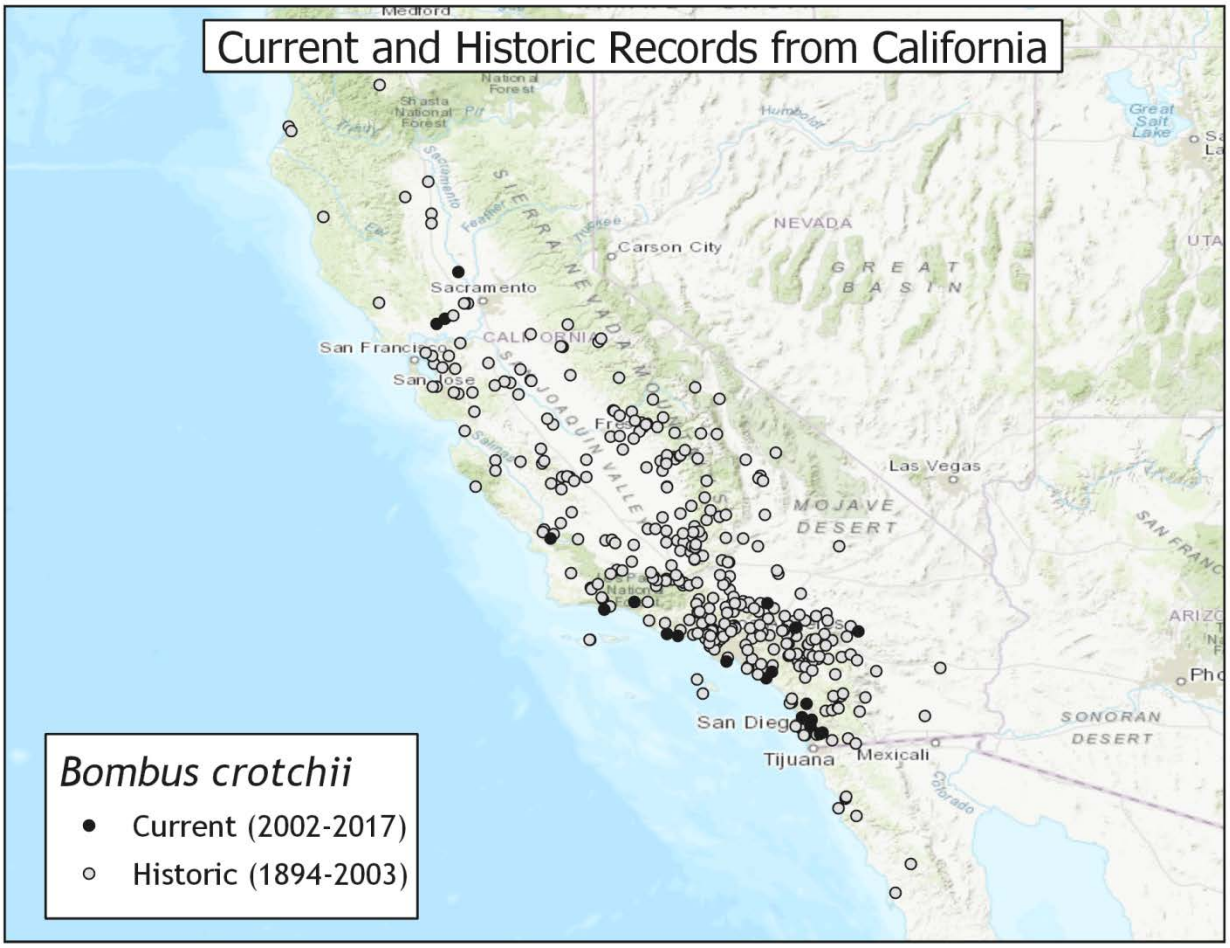
with Sarina Jepsen, Xerces Society.

Thorp, R. W. 2014. Professor emeritus, University of California, Davis. Personal communication with Sarah Foltz Jordon, Xerces Society.

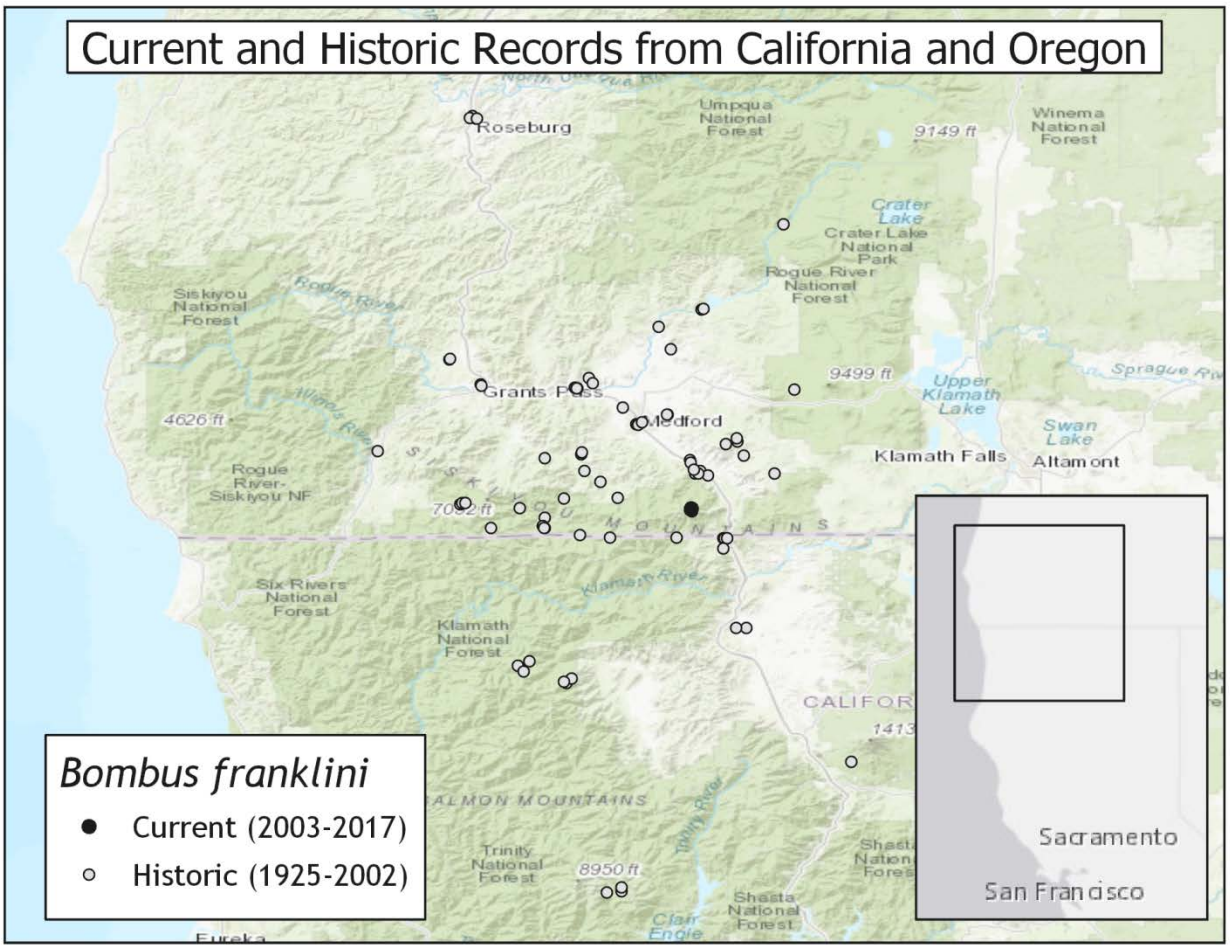
Thorp, R. W. 2017. Professor emeritus, University of California, Davis. Personal communication with Rich Hatfield, Xerces Society. 13 March 2017.

XI. DETAILED DISTRIBUTION MAPS

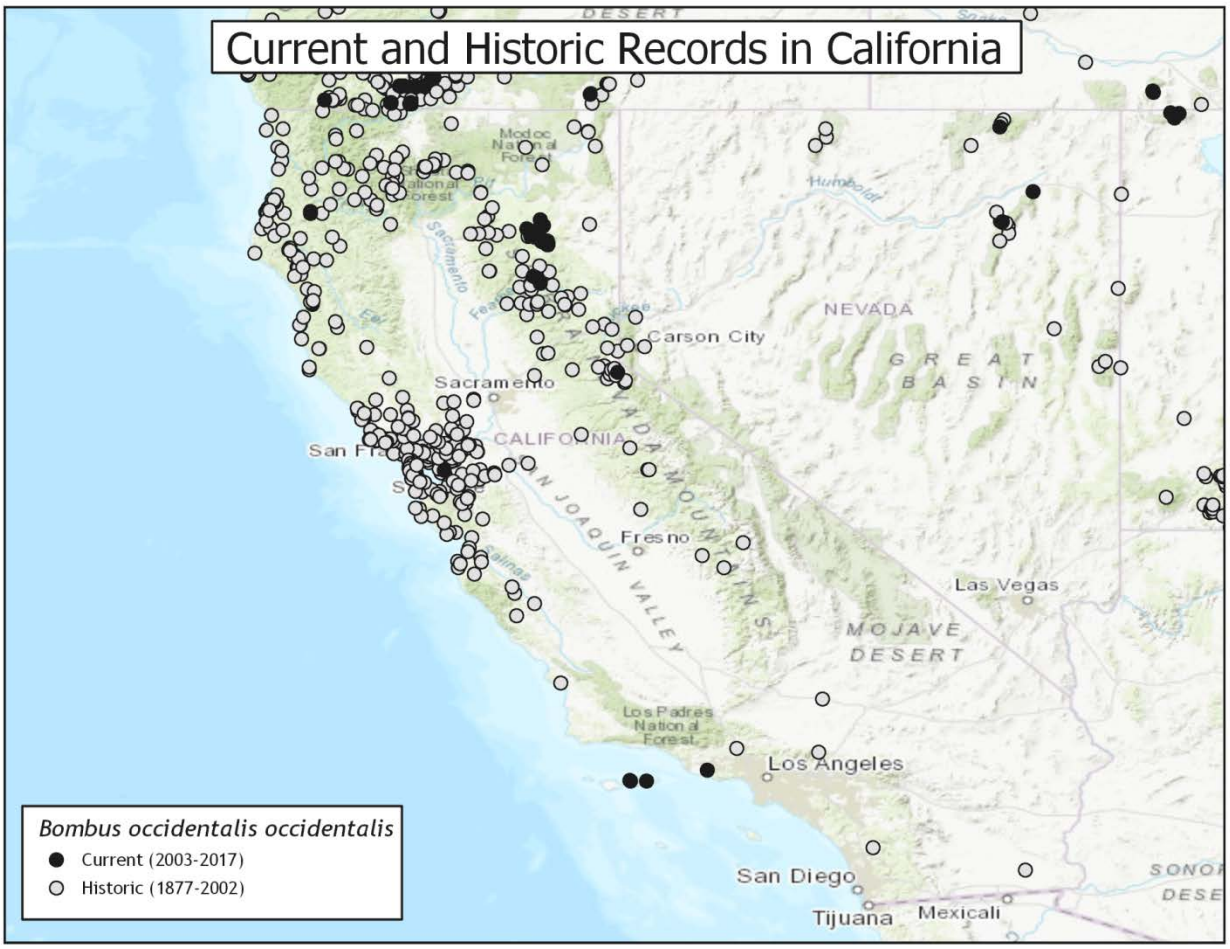
Crotch bumble bee (*Bombus crotchii*) Global Distribution



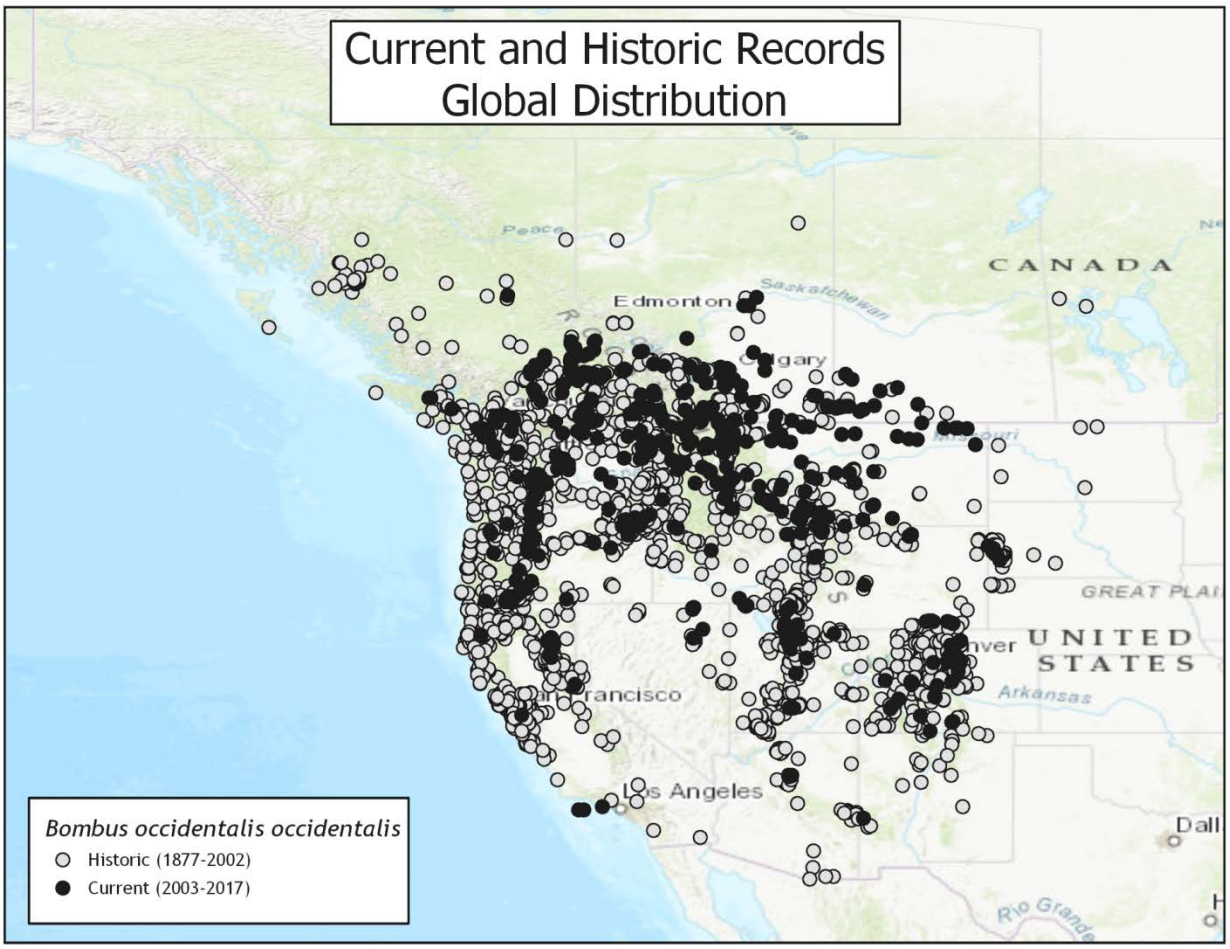
Franklin's bumble bee (*Bombus franklini*) Global Distribution



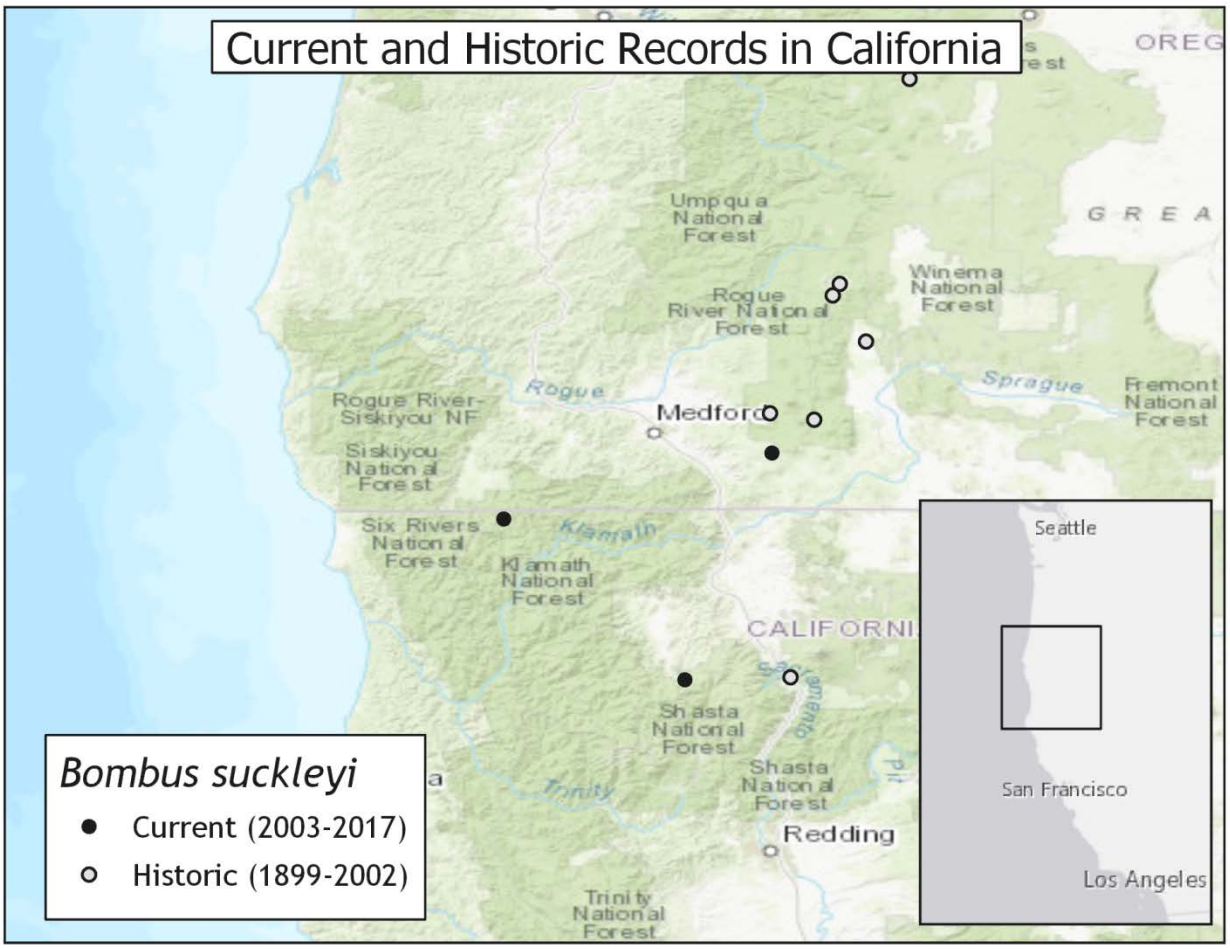
Western bumble bee (*Bombus occidentalis occidentalis*) California Distribution



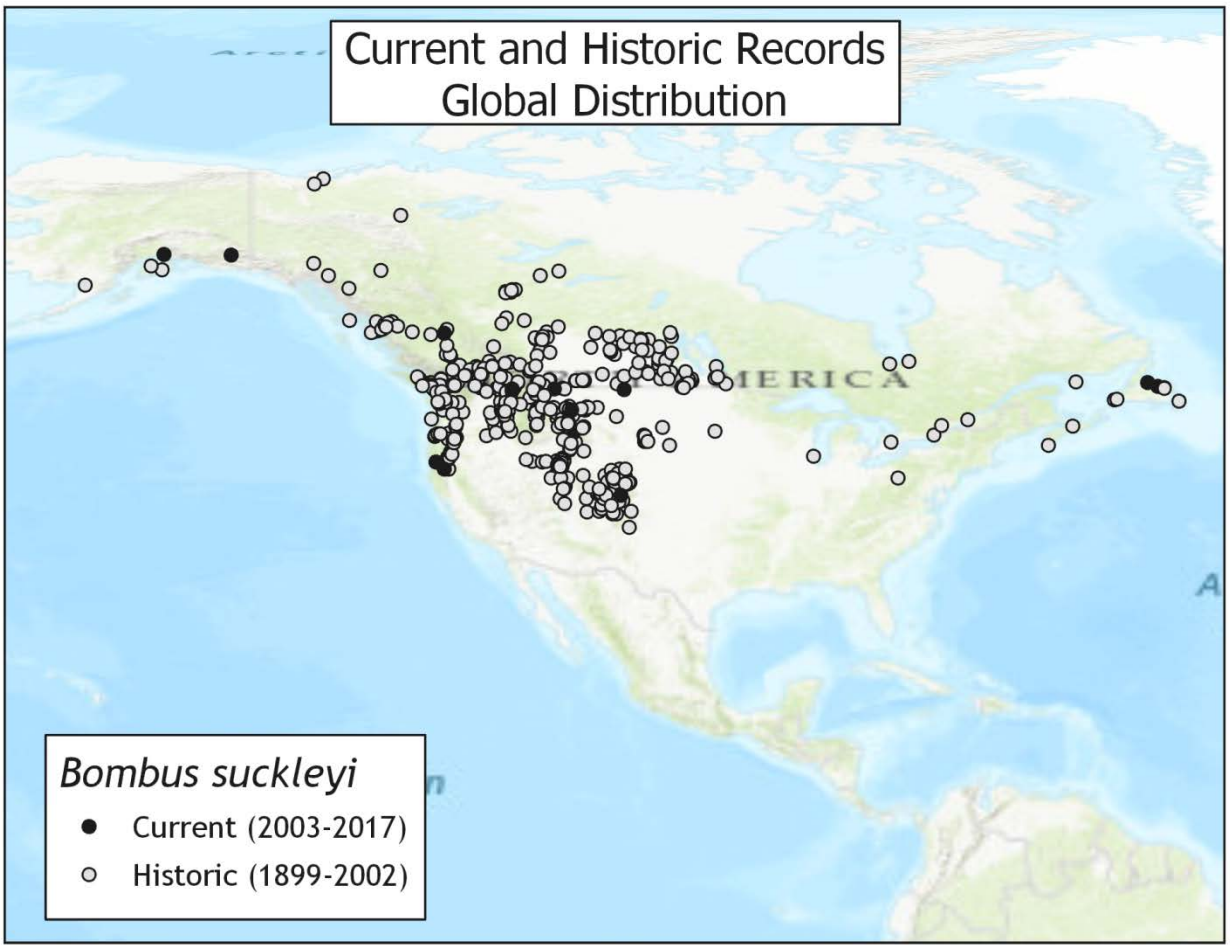
Western bumble bee (*Bombus occidentalis occidentalis*) Global Distribution



Suckley Cuckoo Bumble Bee (*Bombus suckleyi*) California Distribution



Suckley Cuckoo Bumble Bee (*Bombus suckleyi*) Global Distribution



Attachment 5. Conditions of Santa Clara Valley Habitat Plan

Condition 1. Avoid Direct Impacts on Legally Protected Plant and Wildlife Species - Condition 1 requires project proponents to avoid direct impacts on legally protected plant and wildlife species, including federally endangered Contra Costa goldfields and fully protected wildlife species including the golden eagle, bald eagle, American peregrine falcon, southern bald eagle, white-tailed kite, California condor, and ring-tailed cat. Condition 1 also protects bird species and their nests that are protected under the Migratory Bird Treaty Act (MBTA).

The proposed project will comply with this condition. There are no expected impacts to Contra Costa goldfields or other special-status plants. Additionally, the project proponent will include pre-construction survey for nesting birds, including raptors and burrowing owls. Habitat for ring-tailed cats does not exist at the subject site.

Condition 2. Incorporate Urban-Reserve System Interface Design Requirements - Condition 2 provides design requirements for projects that interface urban-reserves.

The proposed project is not at- or in- an urban-reserve interface.

Condition 3. Maintain Hydrologic Conditions and Protect Water Quality - Condition requires projects to comply with NPDES permit requirements, to provide stormwater quality control, and to avoid and minimize effects to local waterways. This includes measures, performance standards, and control measures to minimize increases of peak discharge of stormwater and pollutant discharge to protect water quality, including during project construction.

The proposed project will comply with this condition. All NPDES permit requirements will be implemented.

Condition 4. Avoidance and Minimization for In-Stream Projects

The proposed project is not an "in-stream" project.

Condition 5. Avoidance and Minimization Measures for In-Stream Operations and Maintenance

The proposed project does not include any structures that require any in-stream operation or maintenance.

Condition 6. Design and Construction Requirements for Covered Transportation Projects

The proposed project is not a Transportation Project.

Condition 7. Rural Development Design and Construction Requirements

The proposed project is not a rural development.

Condition 8. Implement Avoidance and Minimization Measures for Rural Road Maintenance

The proposed project is not a rural project.

Condition 9. Prepare and Implement a Recreation Plan - Condition 9 requires providing public access to all reserve lands owned by a public entity.

The proposed project does not abut or adjoin any reserve lands.

Condition 10. Fuel Buffer - Condition 10 provides requirements for fuel buffers between 30 and 100 feet of structures. Requirements include measures relating to fuel buffers near structures and on reserve lands.

The proposed project is an in-fill (urban setting) residential development. It will comply with required setbacks defined by the City of Morgan Hill, but the project site does not abut reserve lands or vegetated open space.

Condition 11. Stream and Riparian Setbacks - Condition 11 provides requirements for stream and riparian setbacks.

The proposed project does not include riparian or stream corridors either on or adjacent to the property boundary.

Condition 12. Wetland and Pond Avoidance and Minimization - Condition 12 provides measures to protect wetlands and ponds, including planning actions, design, and construction actions.

The proposed project would comply with this condition. The project proponent has determined that it is impracticable to avoid permanent impacts to all the wetlands on the project site, so wetland fees will be paid to cover the costs of compensatory mitigation required by the SCVHP.

Condition 13 (page 6-58). Serpentine and Associated Covered Species Avoidance and Minimization - Condition 13 requires surveys for special status plants and the Bay checkerspot butterfly as well as its larval host plant in appropriate areas that support serpentine bunchgrass grassland, serpentine rock outcrops, serpentine seeps, and serpentine chaparral.

The project site does not include any serpentine soils, nor does it constitute habitat for special-status species that are dependent on serpentine soils.

Condition 14. Valley Oak and Blue Oak Woodland Avoidance and Minimization - Condition 14 provides requirements for project planning and project construction, including avoidance of large oaks, guidance on irrigation near oak trees, and a buffer around the root protection zone, roads and pathways within 25 feet of the dripline of an oak tree, trenching, and pruning activities.

The project site does not include valley oak or blue oak stands. The project proponents will work with the City

of Morgan Hill and the SCVHP to ensure protective measures are applied to any existing on-site oak trees that are proposed to be preserved.

Condition 15. Western Burrowing Owl - Condition 15 requires preconstruction surveys for burrowing owls in appropriate habitat prior to construction activities, provides avoidance measures for owls and nests in the breeding season and owls in the non-breeding season, and requirements for construction monitoring.

The project will comply with this condition. Western burrowing owls are not known to occur at the project site, but preconstruction surveys for burrowing owls will be included.

Condition 16. Least Bell's Vireo - Condition 16 requires preconstruction surveys in appropriate habitat for the least Bell's vireo prior to construction activities and provides avoidance and construction monitoring measures.

The project site does not contain habitat suitable for least Bell's vireo. There is no riparian habitat present. A pre-construction bird survey will be included.

Condition 17. Tricolored Blackbird - Condition 17 requires preconstruction surveys in appropriate habitat for the tricolored blackbird prior to construction activities and provides avoidance and construction monitoring measures.

Habitat for tricolored blackbird is present on an adjacent property but not on the subject property. A preconstruction survey for this species will be included.

Condition 18 (page 6-71) San Joaquin Kit Fox - Condition 18 requires preconstruction surveys in appropriate habitat for the San Joaquin kit fox prior to construction activities and provides avoidance and construction monitoring measures.

The project site is an in-fill site in the City of Morgan Hill. The site is not appropriate habitat for San Joaquin kit fox.

Condition 19 (page 6-74). Plant Salvage when Impacts are Unavoidable - Condition 19 provides salvage guidance and requirements for covered plants.

There is no habitat for any covered plants known to exist at the site.

Condition 20 (page 6-76). Avoid and Minimize Impacts to Covered Plant Occurrences - Condition 20 provides requirements for preconstruction surveys for appropriate covered plants (per habitat).

There is no habitat for any covered plants known to exist at the site.

Tree Inventory, Assessment, And Protection

Morgan Hill
APN - 764-10-013
APN - 764-10-015
(Monterey Road)

Prepared for:

City Ventures
4441 Spear Street, Suite 200
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October 17, 2022

Prepared By:

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Summary

The plans are to develop the lots into 49 residential and 5 commercial units. The inventory contains all the trees with trunk diameters greater than six inches (18 inches in circumference). The inventory contains thirteen trees comprised of eight different species. Five trees are in good condition, six fair, and two are in poor shape. Six trees have fair suitability and seven poor. Eight trees are to be highly impacted and caused to be removed which include #401, #402, #403, #409, #410, #411, #412 and #413. The plans indicate the trees #404, #405, #406, #407 and #408 near the south end will not be affected. Tree protection would consist of fence at a radius of about eight times the trunk diameter distance in feet.

Introduction

Background

City Ventures asked me to assess the site, trees, and proposed footprint plan, and to provide a report with my findings and recommendations to help satisfy planning requirements.

Assignment

- Provide an arborist's report including an assessment of the trees within the project area and on the adjacent sites where necessary. The assessment is to include the species, size (trunk diameter), condition (health, structure and form), and suitability for preservation.

Limits of the assignment

- The information in this report is limited to the condition of the trees during my inspection on October 13, 2022. No tree risk assessments were performed.
- The plans reviewed for this assignment were as follows: Vesting Tentative Map Existing and Proposed Conditions "The Gates" C.1 and C.2, Tentative Utility and Grading Plans C.4, C.5, C.6, and C.7 dated 6/28/22 provided by MH Engineering Co.

Purpose and use of the report

The report is intended to identify all the trees within the plan area that could be affected by a project. The report is to be used by the property owners, owner's agents, and the City of Morgan Hill as a reference for existing tree and site conditions to help satisfy planning requirements.

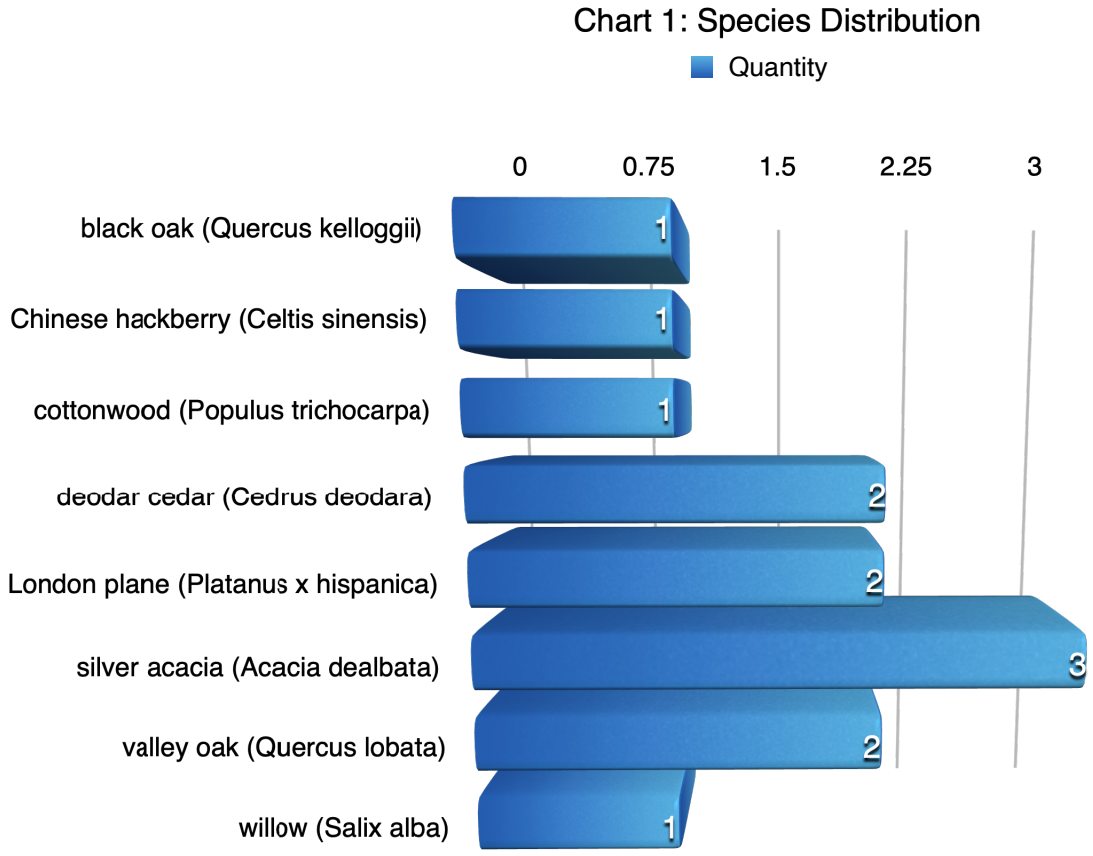
Observations

Plans

The plans are to develop the lots into 49 residential and 5 commercial units.

Tree Inventory

The inventory contains all the trees with trunk diameters greater than six inches (18 inches in circumference). The inventory contains thirteen trees comprised of eight different species with only the valley oaks being native to the region (Chart 1).



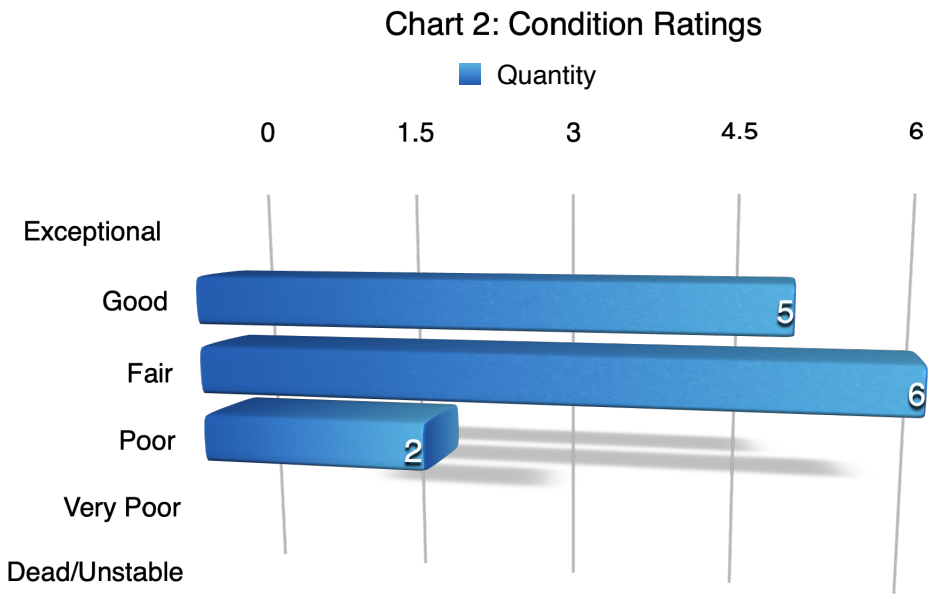
Discussion

Condition Rating

A tree's condition is a determination of its overall health, structure, and form (ISA 2018). The assessment considered all three characteristics for a combined condition rating.

- 100% - Exceptional = Good health and structure with significant size, location or quality.
- 61-80% - Good = Normal vigor, well-developed structure, function and aesthetics not compromised with good longevity for the site.
- 41-60 % - Fair = Reduced vigor, damage, dieback, or pest problems, at least one significant structural problem or multiple moderate defects requiring treatment. Major asymmetry or deviation from the species normal habit, function and aesthetics compromised.
- 21-40% - Poor = Unhealthy and declining appearance with poor vigor, abnormal foliar color, size or density with potential irreversible decline. One serious structural defect or multiple significant defects that cannot be corrected and failure may occur at any time. Significant asymmetry and compromised aesthetics and intended use.
- 6-20% - Very Poor = Poor vigor and dying with little foliage in irreversible decline. Severe defects with the likelihood of failure being probable or imminent. Aesthetically poor with little or no function in the landscape.
- 0-5% - Dead/Unstable = Dead or imminently ready to fail.

Five trees are in good condition, six fair, and two are in poor shape (Chart 2).

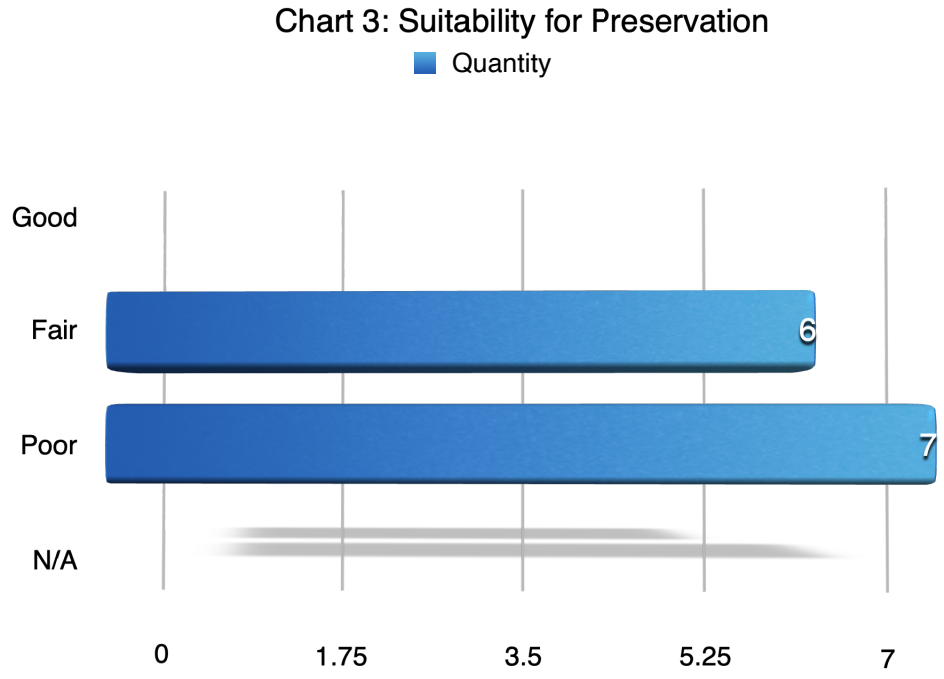


Suitability for Preservation

A tree's suitability for preservation is determined based on its health, structure, age, species and disturbance tolerances.

- Good = Trees with good health, structural stability and longevity after construction.
- Fair = Trees with fair health and/or structural defects that may be mitigated through treatment. These trees require more intense management and monitoring, before, during, and after construction, and may have shorter life expectancy after development.
- Poor = Trees are expected to decline during or after construction regardless of management. The species or individual may possess characteristics that are incompatible or undesirable in landscape settings or unsuited for the intended use of the site.

Six trees have fair suitability and seven poor. Trees poorly suited for preservation include invasive species such as the acacia, willow and cottonwood along with those with poor structure or health such as the black oak (Chart 3).



Expected Impact Level

Impact level defines how a tree may be affected by construction activity and proximity to the tree, and is described as low, moderate, or high. The following scale defines the impact rating:

- Low = The construction activity will have little influence on the tree.
- Moderate = The construction may cause future health or structural problems, and steps must be taken to protect the tree to reduce future problems.
- High = Tree structure and health will be compromised and removal is recommended, or other actions must be taken for the tree to remain. The tree is located in the building envelope.

Eight trees are to be highly impacted and caused to be removed which include #401, #402, #403, #409, #410, #411, #412 and #413. The plans indicate the trees #404, #405, #406, #407 and #408 near the south end will not be affected.

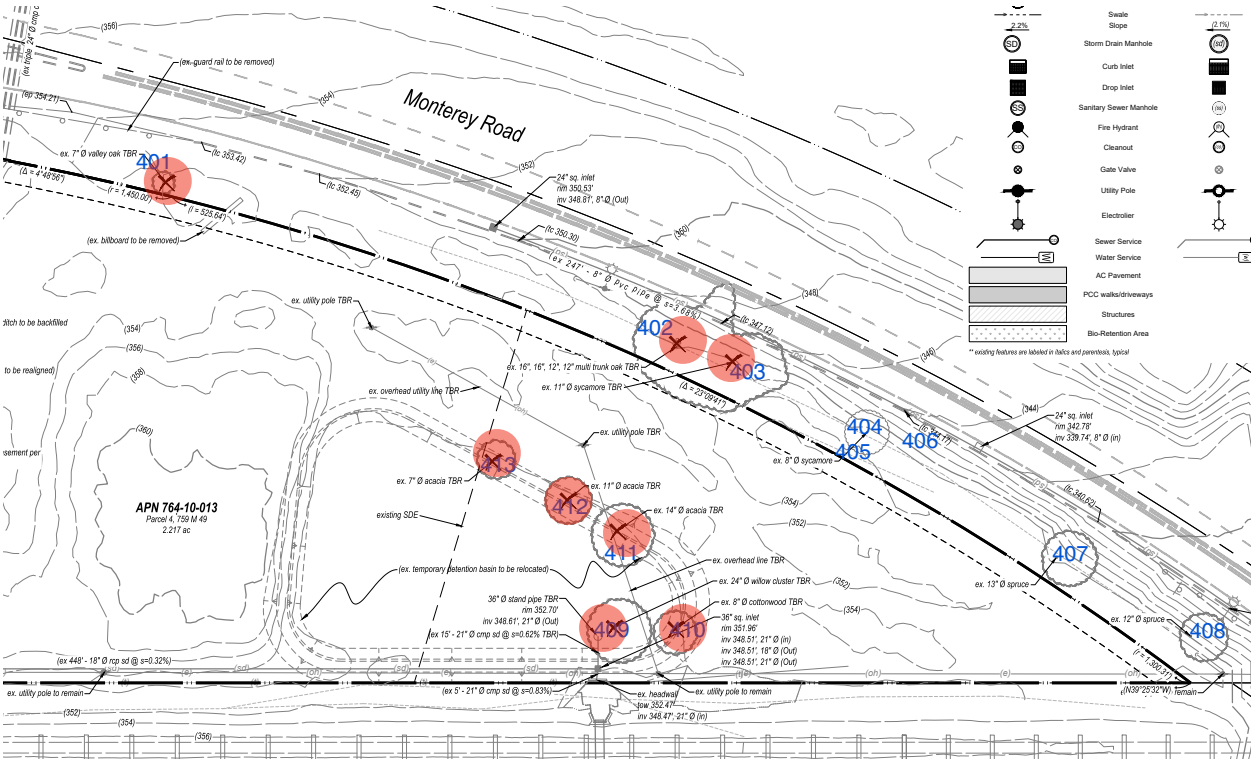
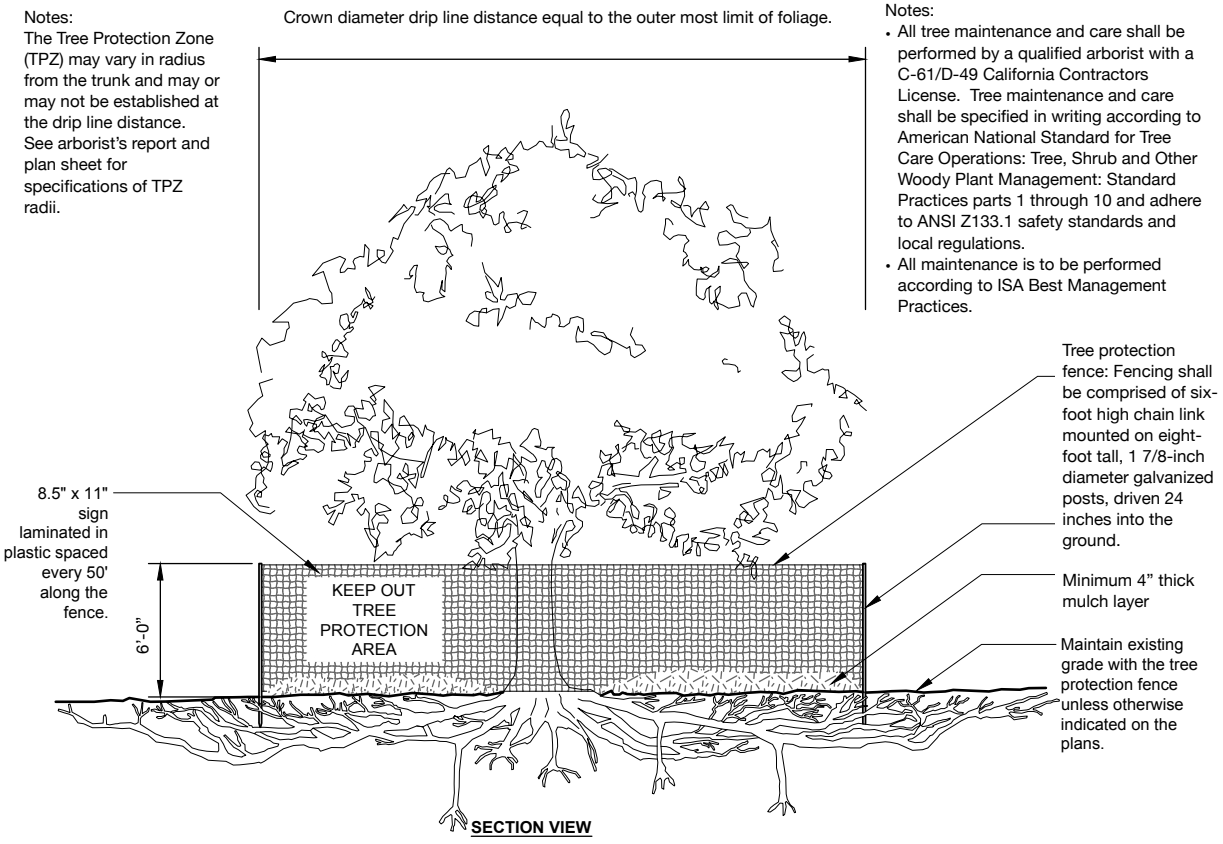


IMAGE 1: TREES HIGHLY IMPACTED INDICATED IN RED

Tree Protection

Tree protection focuses on avoiding damage to the roots, trunk, or scaffold branches from heavy equipment (Appendix D). The tree protection zone (TPZ) is the defined area in which certain activities are prohibited to minimize potential injury to the tree. The most current accepted method for determining the TPZ radius is to use a formula based on species tolerance, tree age/ vigor/health, and trunk diameter (Matheny, N. and Clark, J. 1998) (Fite, K, and Smiley, E. T., 2016).

Trees #404 through #408 are located at the top or on the slope adjacent to Monterey Road. These trees would only require protection on one side if the slope is to be maintained intact. Tree protection would consist of fence at a radius about eight times the trunk diameter distance in feet.



S-X TREE PROTECTION

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE
Modified by Monarch Consulting Arborists LLC, 2019

Conclusion

The plans are to develop the lots into 49 residential and 5 commercial units. The inventory contains all the trees with trunk diameters greater than six inches (18 inches in circumference). The inventory contains thirteen trees comprised of eight different species. Five trees are in good condition, six fair, and two are in poor shape. Six trees have fair suitability and seven poor. Trees poorly suited for preservation include invasive species such as the acacia, willow and cottonwood along with those with poor structure or health such as the black oak. Eight trees are to be highly impacted and caused to be removed which include #401, #402, #403, #409, #410, #411, #412 and #413. The plans indicate the trees #404, #405, #406, #407 and #408 near the south end will not be affected. Trees #404 through #408 are located at the top or on the slope adjacent to Monterey Road. These trees would only require protection on one side if the slope is to be maintained intact. Tree protection would consist of fence at a radius of about eight times the trunk diameter distance in feet.

Recommendations

1. Place tree identification numbers and protection fence locations on all the plans (Appendix A).

2. Fence should be placed around the trees to be retained at a radius of 8x the DBH in feet as follows: #404 = 8 feet, #405 = 8 feet, #406 = 8 feet, #407 = 11 feet, #408 = 8 feet.

3. Install temporary irrigation or soaker hoses in the TPZ's. Monitor watering times or amounts to ensure adequate soil saturation. (A 5/8" soaker hose requires about 200 minutes to deliver one inch of water to a garden. This number is affected by the length of the hose and the overall rate of flow from the faucet. A good rule of thumb is to expect about ½ GPM as a standard faucet flow rate.). Infrequent deeper watering is preferred.

4. All tree maintenance and care shall be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree maintenance and care shall be specified in writing according to American National Standard for Tree Care Operations: *Tree, Shrub and Other Woody Plant Management: Standard Practices* parts 1 through 10 and adhere to ANSI Z133.1 safety standards and local regulations. All maintenance is to be performed according to ISA Best Management Practices.

5. Refer to Appendix D for general tree protection guidelines including recommendations for arborist assistance while working under trees, trenching, or excavation within a trees drip line or designated TPZ/CRZ.

6. Place all the tree protection fence locations and guidelines on the plans including the grading, drainage, and utility plans. Alternatively create a separate plan sheet that includes all three protection measures labeled "T-1 Tree Protection Plan."

7. Provide a copy of this report to all contractors and project managers, including the architect, civil engineer, and landscape designer or architect. It is the responsibility of the owner to ensure all parties are familiar with this document.

8. Arrange a pre-construction meeting with the project arborist or landscape architect to verify tree protection is in place, with the correct materials, and at the proper distances.

Bibliography

American National Standard for Tree Care Operations: Tree, Shrub and Other Woody Plant Management : Standard Practices (Management of Trees and Shrubs During Site Planning, Site Development, and Construction)(Part 5). Londonderry, NH: Secretariat, Tree Care Industry Association, 2012. Print.

Costello, Laurence Raleigh, Bruce W. Hagen, and Katherine S. Jones. *Oaks in the urban landscape: selection, care, and preservation*. Oakland, CA: University of California, Agriculture and Natural Resources, 2011. Print.

Fite, Kelby, and Edgar Thomas. Smiley. *Managing trees during construction*, second edition. Champaign, IL: International Society of Arboriculture, 2016.

ISA. *Guide For Plant Appraisal*. Savoy, IL: International Society of Arboriculture, 2000. Print.

ISA. *Guide For Plant Appraisal*. Savoy, IL: International Society of Arboriculture, 2018. Print.

ISA. Species Classification and Group Assignment, 2004 Western Chapter Regional Supplement. Western Chapter ISA

Matheny, Nelda P., Clark, James R. Trees and development: A technical guide to preservation of trees during land development. Bedminster, PA: International Society of Arboriculture1998.

Smiley, E, Matheny, N, Lilly, S, *Best Management Practices: Tree Risk Assessment:* International Society of Arboriculture, 2017. Print

Appendix A: Tree Locations, Protection, and Disposition

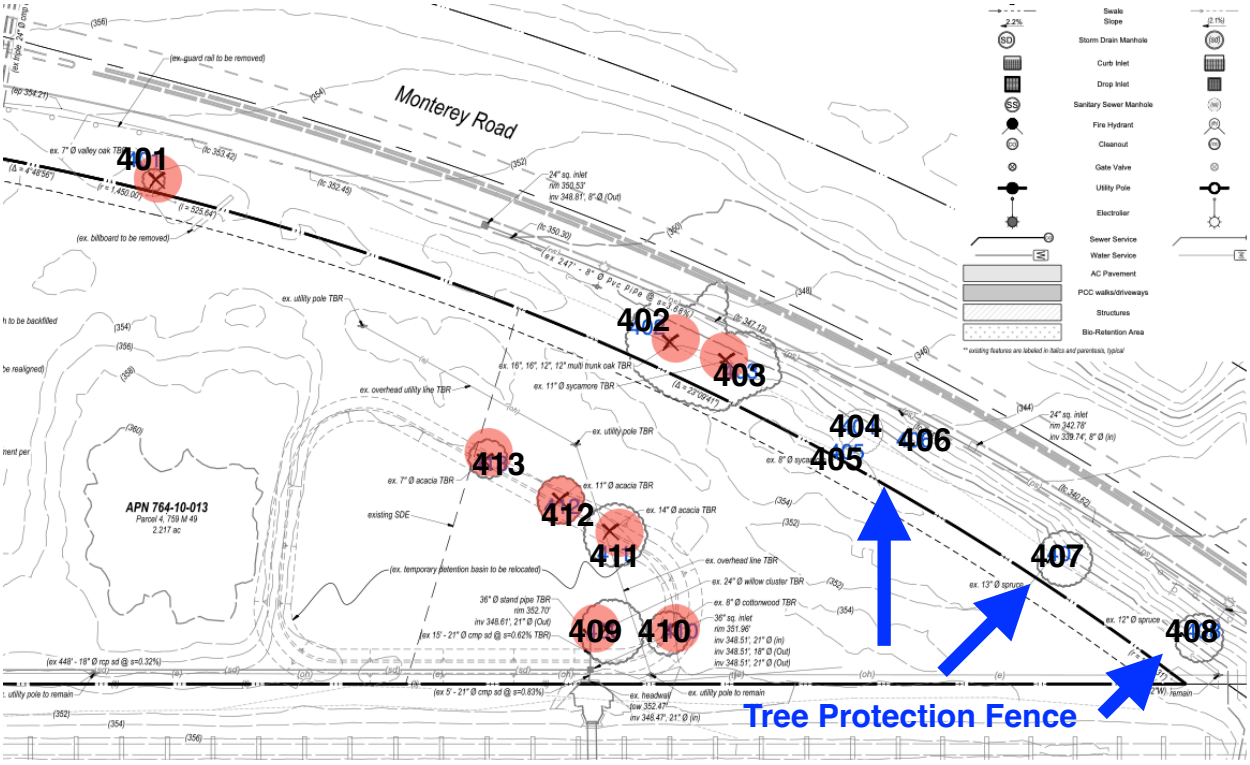


IMAGE 2: TREES IN RED TO BE REMOVED, TREE PROTECTION SHOULD BE ESTABLISHED AT EIGHT TIMES THE TRUNK DIAMETER RADIUS OF #404 = 8 FEET, #405 = 8 FEET, #406 = 8 FEET, #407 = 11 FEET, #408 = 8 FEET

Appendix B: Tree Inventory Summary Table

Table 1

Tree Species	I.D. #	Trunk Diameter (in.)	~ Height (ft.)	~ Canopy Diameter (ft.)	Condition	Suitability	Expected Impact
valley oak (*Quercus lobata)*	401	5, 5	10	10	Good	Fair	High
black oak (*Quercus kelloggii*)	402	13, 13, 11, 16, 18	45	35	Fair	Poor	High
London plane (*Platanus x hispanica*)	403	10	25	10	Good	Fair	High
London plane (*Platanus x hispanica*)	404	9	25	25	Good	Fair	Low
valley oak (*Quercus lobata)*	405	4, 3, 3, 2	10	10	Fair	Fair	Low
Chinese hackberry (*Celtis sinensis*)	406	7, 8 Or 12	20	20	Good	Poor	Low
deodar cedar (*Cedrus deodara*)	407	16	25	20	Poor	Fair	Low
deodar cedar (*Cedrus deodara*)	408	12	25	20	Good	Fair	Low
willow (*Salix alba*)	409	10, 8, 8, 8, 6, 6	40	25	Fair	Poor	High
cottonwood (*Populus trichocarpa*)	410	9	45	25	Fair	Poor	High
silver acacia (*Acacia dealbata*)	411	7, 8, 5, 5, 5, 5, 5, 5, 3, 3	35	25	Poor	Poor	High
silver acacia (*Acacia dealbata*)	412	6, 6, 5	35	25	Fair	Poor	High
silver acacia (*Acacia dealbata*)	413	5, 7	35	25	Fair	Poor	High

Appendix C: Photographs

C1: Tree #401



C2: trees #402 and #403



C3: Trees #404 and #406



C4: Trees #407 and #408



C5: Trees #409 through #413



Appendix D: Tree Protection Guidelines

Prohibited Activities

The following are prohibited activities within the TPZ:

- Grade changes (e.g. soil cuts, fills);
- Trenches;
- Root cuts;
- Pedestrian and equipment traffic that could compact the soil or physically damage roots;
- Parking vehicles or equipment;
- Burning of brush and woody debris;
- Storing soil, construction materials, petroleum products, water, or building refuse; and,
- Disposing of wash water, fuel or other potentially damaging liquids.

Pre-Construction Meeting with the Project Arborist

Tree protection locations should be marked before any fencing contractor arrives.

Prior to beginning work, all contractors involved with the project should attend a pre construction meeting with the project arborist to review the tree protection guidelines. Access routes, storage areas, and work procedures will be discussed.

Tree Protection Zones and Fence Specifications

Tree protection fence should be established prior to the arrival of construction equipment or materials on site. Fence should be comprised of six-foot high chain link fence mounted on eight-foot tall, 1 7/8-inch diameter galvanized posts, driven 24 inches into the ground and spaced no more than 10 feet apart. Once established, the fence must remain undisturbed and be maintained throughout the construction process until final inspection.

The fence should be maintained throughout the site during the construction period and should be inspected periodically for damage and proper functions. Fence should be repaired, as necessary, to provide a physical barrier from construction activities.

Monitoring

Any trenching, construction or demolition that is expected to damage or encounter tree roots should be monitored by the project arborist or a qualified ISA Certified Arborist and should be documented.

The site should be evaluated by the project arborist or a qualified ISA Certified Arborist after construction is complete, and any necessary remedial work that needs to be performed should be noted.

Restrictions Within the Tree Protection Zone

No storage of construction materials, debris, or excess soil will be allowed within the Tree Protection Zone. Spoils from the trenching shall not be placed within the tree protection zone either temporarily or permanently. Construction personnel and equipment shall be routed outside the tree protection zones.

Root Pruning

Root pruning shall be supervised by the project arborist. When roots over two inches in diameter are encountered they should be pruned by hand with loppers, handsaw, reciprocating saw, or chain saw rather than left crushed or torn. Roots should be cut beyond sinker roots or outside root branch junctions and be supervised by the project arborist. When completed, exposed roots should be kept moist with burlap or backfilled within one hour.

Boring or Tunneling

Boring machines should be set up outside the drip line or established Tree Protection Zone. Boring may also be performed by digging a trench on both sides of the tree until roots one inch in diameter are encountered and then hand dug or excavated with an Air Spade® or similar air or water excavation tool. Bore holes should be adjacent to the trunk and never go directly under the main stem to avoid oblique (heart) roots. Bore holes should be a minimum of three feet deep.

Timing

If the construction is to occur during the summer months supplemental watering and bark beetle treatments should be applied to help ensure survival during and after construction.

Tree Pruning and Removal Operations

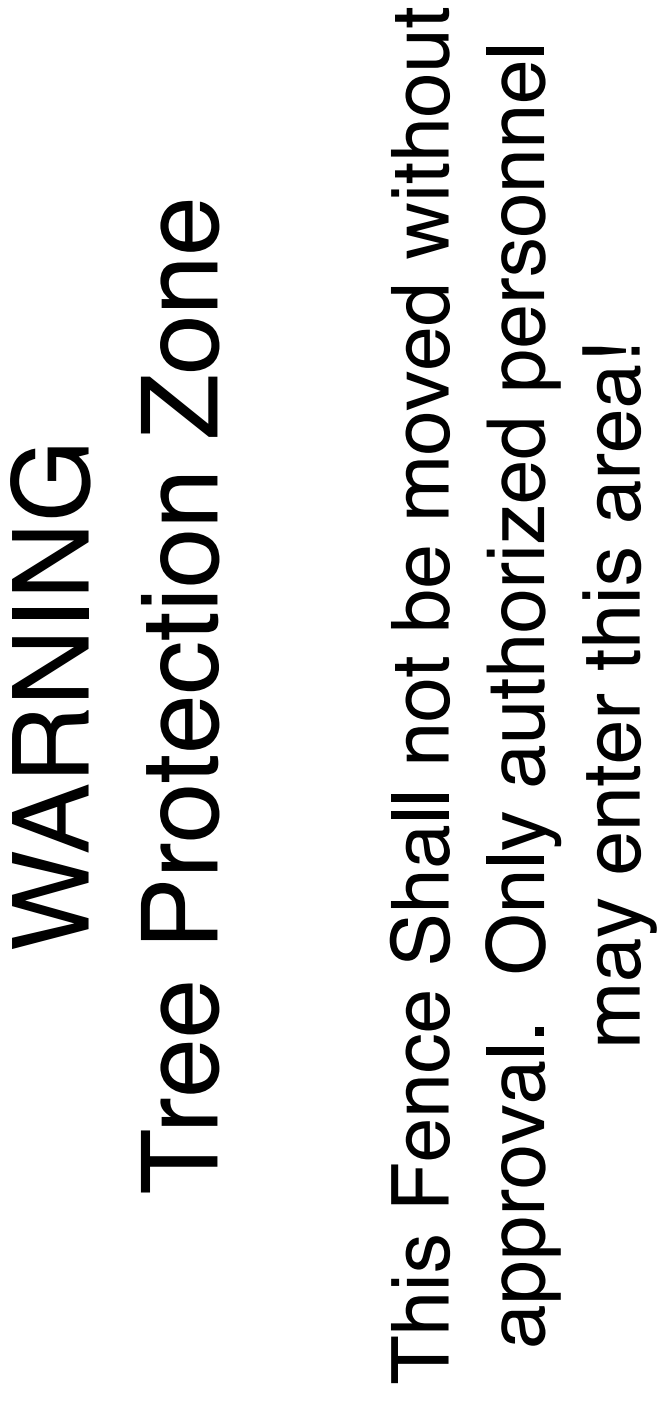
All tree pruning or removals should be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree pruning should be specified in writing according to ANSI A-300A pruning standards and adhere to ANSI Z133.1 safety standards. Trees that need to be removed or pruned should be identified in the pre-construction walk through.

Tree Protection Signs

All sections of fencing should be clearly marked with signs stating that all areas within the fencing are Tree Protection Zones and that disturbance is prohibited. Text on the signs should be in both English and Spanish (Appendix E).

Appendix E: Tree Protection Signs

E1: English



E2: Spanish

CUIDADO
Zona De Arbol Pretejido

Esta cerca no sera removida sin aprobacion. Solo personal autorizado entrara en esta area!

Project Arborist

Qualifications, Assumptions, and Limiting Conditions

Any legal description provided to the consultant is assumed to be correct. Any titles or ownership of properties are assumed to be good and marketable. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

All property is presumed to be in conformance with applicable codes, ordinances, statutes, or other regulations.

Care has been taken to obtain information from reliable sources. However, the consultant cannot be responsible for the accuracy of information provided by others.

The consultant shall not be required to give testimony or attend meetings, hearings, conferences, mediations, arbitration, or trials by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.

This report and any appraisal value expressed herein represent the opinion of the consultant, and the consultant's fee is not contingent upon the reporting of a specified appraisal value, a stipulated result, or the occurrence of a subsequent event.

Sketches, drawings, and photographs in this report are intended for use as visual aids, are not necessarily to scale, and should not be construed as engineering or architectural reports or surveys. The reproduction of information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is only for coordination and ease of reference. Inclusion of said information with any drawings or other documents does not constitute a representation as to the sufficiency or accuracy of said information.

Unless otherwise expressed: a) this report covers only examined items and their condition at the time of inspection; and b) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that structural problems or deficiencies of plants or property may not arise in the future.

Certification of Performance

I Richard Gessner, Certify:

That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment;

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;

That the analysis, opinions and conclusions stated herein are my own;

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;

That no one provided significant professional assistance to the consultant, except as indicated within the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events;

I further certify that I am a Registered Consulting Arborist® with the American Society of Consulting Arborists, and that I acknowledge, accept and adhere to the ASCA Standards of Professional Practice. I am an International Society of Arboriculture Board Certified Master Arborist®. I have been involved with the practice of Arboriculture and the care and study of trees since 1998.

Richard J. Gessner 

ASCA Registered Consulting Arborist® #496
ISA Board Certified Master Arborist® WE-4341B

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Appendix C

Geotechnical Investigation

Appendix C

Geotechnical Investigation

QUANTUM GEOTECHNICAL, INC.

Project No. H052.G
October 20, 2021

Ms. Samantha Hauser
Senior Vice President of Development
City Ventures
444 Spear Street
Suite 200
San Francisco, CA 94105

Subject: Proposed Townhome and Commercial Development
18605 Monterey Road
Morgan Hill 8
Morgan Hill, California
GEOTECHNICAL ENGINEER OF RECORD

Reference: Geotechnical Investigation Report
Project No. 10218.G
Gateway Center Business Park
By Terrasearch, Inc
Dated 7 May 2004

Dear Ms. Hauser:

This is to confirm that City Ventures has retained Quantum Geotechnical, Inc., to provide consultation and observation and testing services during construction of the subject project.

The referenced report prepared geotechnical recommendations for a commercial development. The level of investigation performed in the referenced report is sufficient for the proposed residential development, and many of the recommendations are generally applicable for a residential development. We are currently preparing an updated geotechnical report to provide updated seismic design and specific recommendations for the proposed residential development. As such, Quantum Geotechnical, Inc., will become the Geotechnical Engineer of Record for the project.

Should you have any questions or require additional information, please contact our office at your convenience.

Sincerely,
Quantum Geotechnical, Inc.



Simon Makdessi, P.E, G.E.
President

6288 San Ignacio Avenue, Suite A, San Jose, CA 95119 Phone (408)-629-3822 Facsimile (408) 629-3825
1110 Burnett Avenue, Suite B, Concord, CA 94520 Phone: (925) 788-2751

COPY

GEOTECHNICAL INVESTIGATION
for Proposed
Gateway Center
Business Park
Morgan Hill, California
for
SOUTH VALLEY DEVELOPERS

By

TERRASEARCH, inc.

Project No. 10218.G
7 May 2004

Project No. 10218.G
7 May 2004

Mr. Scott Schilling
South Valley Developers
16060 Caputo Drive, Suite 160
Morgan Hill, CA 95037

SUBJECT: Proposed *Gateway Center* Commercial Development
18605 Monterey Road
Morgan Hill, California
GEOTECHNICAL INVESTIGATION

Dear Mr. Schilling:

In accordance with your authorization, ***TERRASEARCH, inc.***, has investigated the soil conditions for the proposed New *Gateway Center* Commercial Development to be located at 18605 Monterey Road in the City of Morgan Hill, California.

The accompanying report presents our conclusions and recommendations based on our investigation. Our findings indicate, that from a geotechnical standpoint, the site is suitable for the proposed Gateway Center Commercial Development provided the recommendations of this report are carefully followed and are incorporated into the project plans and specifications. In addition, any applicable setbacks, easements, and requirements set by the City of Morgan Hill and any other governmental agencies should be adhered to.

Should you have any questions relating to the contents of this report or should you require additional information, please do not hesitate to contact our office at your convenience.

Very truly yours,
TERRASEARCH, inc.,

George Makdissy, P.E.
Senior Engineer

Robert Pollak, P.E.
Senior Engineer

Copies: **5 to Mr. Schilling**

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GEOTECHNICAL INVESTIGATION

Purpose and Scope

This report presents the results of our Geotechnical Investigation for the proposed *Gateway Center* Commercial Development to be located at 18605 Monterey Road in the City of Morgan Hill, California. The purpose of our investigation was to evaluate the soil conditions at the site and to establish geotechnical recommendations for the proposed development. The geotechnical recommendations are based on our evaluation and investigation, and on a site plan by EDI Architecture, issue dated February, 2004.

The scope of work for our investigation included:

a. A site reconnaissance by the Project Soil Engineer;
b. Field exploration including 3 drilled borings, and sub-surface soil sampling;
c. Laboratory testing of soil samples obtained in the field;
d. Engineering analysis of laboratory and field investigations;
e. Establishment of geotechnical parameters; and
f. Preparation of this report.

Proposed Development

The proposed development is understood to consist of the construction of two new light commercial structures and associated grade level parking. It is assumed that the buildings will be of conventional construction.

Site Description

The site is irregular in shape and is approximately 2.66 acres in areal extent. The site is bounded by a commercial development to the northwest and undeveloped land to the northeast and southeast. Railroad tracks, placed on a relatively small embankment run along the southwest perimeter of the property. A shallow drainage swale lies parallel and northeast of the embankment. The swale receives water from a culvert which passes under the railroad embankment. A shallow retention pond is located near the west corner of the site and is part of the drainage system. At the time of our field investigation, an 18 inch diameter storm line was being installed across the property to intercept the swale, and presumably replace the retention pond and swale. The storm line will discharge to the east.

The site was vacant at the time of our investigation and relatively devoid of flora, however, considerable rubble, including construction debris and dumped soil were encountered.

This site description is based on our site reconnaissance by the Soils Engineer, and on the referenced site plan.

Subsurface Conditions

The test borings indicate that the site near surface soils are variable and generally consist of firm to hard, silt, clay, sand, and gravel to the depths explored. Heavy gravel was encountered in Boring 1 at a depth of 28½ feet. Plasticity testing indicates that the surficial clay soil has a low propensity to expand when exposed to increases in moisture content.

No groundwater was encountered in our borings. While it is possible that ground water levels may rise during prolonged periods of rainfall, it is not anticipated that groundwater will affect the proposed development.

Seismic Considerations

Because of its proximity to the San Andreas Fault system, Santa Clara County is considered to be one of the most seismically active regions in the United States. Since historic records have been kept in the region, major earthquakes have been recorded on the San Andreas and Hayward Faults.

The San Andreas Fault, located approximately 17½ kilometers to the southwest, is the most likely fault to affect the site with potentially destructive strong ground motions. Other known active faults that may subject the site to intense shaking are the Calaveras (south), the Sargent Fault, and the Zayanta -Vergeles Fault, located 6 kilometers to the northeast, and 12 and 22½ kilometers to the southwest respectively.

Seismic Hazards

Seismic hazards can be divided into two broad classifications; 1) Primary hazards such as seismic shaking and damage produced directly from fault surface ruptures, and 2) Secondary hazards produced by seismic shaking including landslides, lurching, floods, subsidence, and liquefaction.

Primary Hazards

The project site is not within the boundaries of the Alquist-Priolo Special Studies Zone and no faults are known to lie within the site. The likelihood of a surface fault rupture occurring on this site is considered low. Based on historical evidence however, it is likely that at least one significant earthquake will produce strong ground motions at this site during the design life of the proposed structures. Structural considerations for construction on this site should include the seismic design parameters listed under UBC Seismic Design Criteria below.

Secondary Hazards

The distance of the subject site from rivers and other bodies of water makes secondary earthquake hazards from, flooding (from tsunamis, seiches, and damn failures) or lateral spreading highly improbable.

Liquefaction Potential

Liquefaction describes the phenomenon wherein soils lose their supportive strength and become prone to rapid settlement and loss of bearing capacity. Liquefaction occurs during earthquake conditions in saturated, relatively loose, sandy soils located near the ground surface.

Based on the soil types, groundwater level, and blow counts (N-counts) taken during our field investigation, the liquefaction potential on this site is considered very low, even if during the course of the project design life, the groundwater should rise to an unprecedented level.

Seismic Conclusions

The most significant seismic hazard is that of shaking. The structural design of the proposed buildings should anticipate repeatable horizontal ground accelerations. A prudent structural design should incorporate the current state of practice for seismic loads listed in UBC Seismic Design Criteria and the potential for seismically induced settlements as described above.

UBC Seismic Design Criteria

The 1997 Uniform Building Code, Chapter 16, Division IV Earthquake Design requires near-source factors to be used for sites in Seismic Zone 4 that are within certain distances of critical faults. In 1998, the International Conference of Building Officials (ICBO) published a map folio to be used in scaling distances to the critical faults. According to this map folio, the site is within 17½ km of a Type A fault, the San Andreas Fault, and 6 km from the Calaveras Fault, a Type B fault.

Based on Tables 16-R, S and T of the 1997 Uniform Building Code and the data presented in this report, a summary of the earthquake design criteria for use in the design of the proposed structures is as follows:

Seismic Zone	=	4
Soil Profile Type	=	S_D
Near Source Factor, N_a	=	1.0
Near Source Factor, N_v	=	1.17

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

General

1) From a geotechnical standpoint, the site is suitable for the proposed development provided the recommendations presented in this report are incorporated into the project plans and specifications. In addition any other requirements set by the City of Morgan Hill and any other governmental agencies should be followed.

2) The most prominent geotechnical considerations on this site are the probability of seismic shaking during the design life of the project, and the presence of non-engineered fill.

3) The proposed structures may be satisfactorily supported on conventional spread footings.

4) All foundation plans for the improvements must be reviewed by the Soil Engineer prior to contract bidding or submittal to governmental agencies so that plans are reconciled with site conditions and sufficient time is allowed for suitable mitigative measures to be incorporated into the final specifications.

5) *TERRASEARCH, inc.*, should be notified at least two working days prior to foundation operations. This will give the Soil Engineer ample time to discuss the problems that may be encountered in the field and coordinate the work with the contractor.

6) Field observation and testing during the grading operations must be provided by representatives of *TERRASEARCH, inc.*, to enable them to form an opinion regarding the adequacy of the site preparation, and the extent to which the earthwork construction comply with the specification requirements. Any work related to the foundation operations performed without the full knowledge and under the direct observation of the Soil Engineer will render the recommendations of this report invalid. The degree of observation and frequency of testing services would depend on the construction methods and schedule, and the item of work.

Site Clearing and Preparation

7) It is not anticipated that demolition will be required on this site, however, if during the course of grading operations any concrete foundations, septic tanks, underground utilities, storage tanks, or any other sub-surface structures are encountered, they must be removed. Any tree root system, debris or trash that are encountered should also be removed. It is vital that *TERRASEARCH, inc.* observe the grading operation and be notified in ample time to ensure compliance with these requirements.

8) At the time of our investigation, there was sparse vegetation on the majority of the site. It is not anticipated that stripping will be necessary, however if excessive vegetation is present at the commencement of grading operations, the surface of the site in areas containing that vegetation should be stripped to remove the vegetation and/or other deleterious material. The need and actual depth of stripping will be determined in the field by the Soil Engineer at the time the grading operations commence.

9) All non-engineered fill and loose or soft soils must be excavated to firm/stiff native ground. Following removal of non-engineered fill and loose and/or soft soil, the top 8 inches of exposed native ground should be scarified and compacted to a minimum degree of relative compaction of 90% at a moisture content above optimum as determined by ASTM D1557-91 Laboratory Test Procedure. Materials generated from loose/soft soils may be used as engineered fill with the approval of the Soil Engineer provided they do not contain debris.

Spread Footing Foundation

10) A spread footing foundation system may be used provided that a drainage system be incorporated into the project design to prevent introduction of irrigation or storm water into the foundation sub-grade soils.

11) Spread footings should be embedded to a minimum depth of 24 inches below the lowest adjacent pad grade (i.e., trenching depth). Interior footings may have a minimum embedment of 18 inches below the adjacent pad grade. At these depth, the recommended design bearing pressure for the continuous footings or isolated footings should not exceed 3000 p.s.f. due to dead loads and sustainable live loads, and 4000 p.s.f. for all loads including wind and seismic loads. **Footings are to be reinforced as required by the structural engineer and in accordance with structural requirements.**

12) To accommodate lateral building loads, the passive resistance of the foundation soil can be utilized. The passive soil pressures can be assumed to act against the front face of the footing below a depth of one foot below the ground surface. For design purposes, it is recommended that a passive pressure equivalent to that of a fluid weighing 325 p.c.f. be used. An allowable friction coefficient of 0.30 can be assumed at the base of the spread footing.

13) Structural design should anticipate differential movements of up to ½" in 25 feet.

General Slab Construction for Spread Footings or Exterior Slab on Grade

14) To reduce the potential cracking of concrete slabs, the following are recommended:

a. A minimum of 4 inches of gravel or clean crushed rock material should be placed between the finished subgrade and the slabs to serve as a capillary break between the subsoil and the slab. The use of aggregate base beneath the slab will not provide a capillary break, however, if floor coverings or potential moisture condensation on the floor slab is not an issue, aggregate base may be used. See the "Guide Specifications For Rock Under Floor Slabs", Appendix C.

b. Cast in place concrete slabs on grade supporting floor coverings should be provided with measures to prevent condensation caused by temperature differentials from harming floor coverings. One method to reduce condensation is to place a waterproof membrane between a 2" sand cushion and the 4 inches of gravel. The waterproof membrane shall be overlapped adequately to provide a continuous waterproof membrane barrier under the entire slab. Care must be taken to ensure that the waterproof membrane does not become torn and entangled with the reinforcing.

c. All slabs should be reinforced with a minimum of No. 3 bars spaced 18 in. center to center in both directions. The reinforcement shall be placed in the center of the slab unless otherwise designated by the design engineer.

d. Slabs at door openings should be constructed with a curl or a thickened edge extending a minimum of 12 inches into native ground or compacted fill.

Utility Trenches

15) Applicable safety standards require that trenches in excess of 5 feet in depth must be properly shored or that the walls of the trench slope back to provide safety for installation of lines. If trench wall sloping is performed, the inclination should vary with the soil type. The underground contractor should request an opinion from the Soil Engineer as to the type of soil and the resulting inclination.

16) With respect to state-of-the-art construction or local requirements, utility lines are generally bedded with granular materials. These materials can convey surface or subsurface water beneath the structures. Therefore all utility trenches which possess the potential to transport water must be sealed with grout where the trench enters/exits the building perimeter. This impervious seal should extend a minimum of 2 feet away from the building perimeter. The Project Soil Engineer must observe the grouting operations.

17) Utility trenches must be backfilled with native or approved import material and compacted to relative compaction of 90% in accordance with Laboratory Test Procedure ASTM D1557-91. Backfilling and compaction of these trenches must meet the requirements set forth by the City of Morgan Hill, Building and Engineering Services Department.

Pavement Design

18) After installation of underground facilities, the top 6 inches of subgrade soils under the pavements should be compacted to a minimum relative compaction of 95% based on the ASTM D1557-91 test method. Aggregate base should also be compacted to a minimum relative compaction of 95% based on the above test method.

19) Based on testing of the surface soils, an "R-Value" of 15 can be used for the near surface soils encountered on the site. The recommended design sections presented in Table 2 were calculated in accordance with the methods presented in the latest update of the 4th Edition of the California Department of Transportation Highway Design Manual. The Table 2 design sections may be utilized provided that the subgrade is founded within the native material or within imported material of equal to or greater "R-Value."

20) It is customary that a Traffic Index (T.I.) of 4.5 to 5.0 be used for design of pavements for automobile use only. All pavement sections should be designed for Traffic Indices in accordance with applicable standards and with the City of Morgan Hill or Caltrans.

Table 2: Recommended Asphalt Concrete Pavement Sections

DESIGN TRAFFIC INDEX	ASPHALT CONCRETE (TYPE B)	AGGREGATE BASE (CLASS 2)
4.5	3.00 in.	7.0 in.
5.0	3.00 in.	7.5 in.
5.5	3.00 in.	10.0 in.

21) After the sub-grade is established, it is recommended that R-value samples be obtained and tested so that an accurate pavement section is obtained.

General Construction Requirements

22) Liberal drainage gradients must be provided by the project Civil Engineer to remove all storm water from the vicinity of the foundation and to prevent storm and/or irrigation water from seeping beneath the structures. Should surface water be allowed to seep under the structure, foundation movement resulting in structural damage may occur. All compacted, finished grades should be sloped at a minimum 2% gradient away from the exterior foundation for a minimum distance of 3 feet. Should the recommended surface gradient not be constructed by the developer as designed by the project Civil Engineer, or should the owner alter the surface drainage provided by the developer, then a sub-drain system should be constructed around the perimeter of the structures. Specific recommendations for sub-drain construction will be provided upon request.

23) Where practicable, the building perimeter should be abutted with hardscape.

24) Downspouts from the gutters should be provided with adequate, non-perforated pipe conduits to carry storm water away from the structures and graded areas and, thus, reduce the possibility of soil saturation adjacent to the foundation and engineered fills.

25) Flower beds or planters are not recommended adjacent to the building foundations because of the possibility of irrigation water affecting the foundations and cast concrete slabs-on-grade. Should planters be constructed, foliage requiring little irrigation should be planted. It is preferred that irrigation adjacent to the building foundations consist of a drip system. Sprinkler systems may be used; however, it is preferred that sprinkler heads do not water closer than 3 feet from the building foundations. If sprinklers are used within 3 feet, then excessive watering should not be allowed; and good surface drainage in the planter area must be provided.

26) If planters are used adjacent to the building foundations, the planters should be provided with a sub-drain system equipped with closed-pipe conduits to discharge surplus irrigation water away from the foundations to a location approved by the project civil engineer. In any case, it is recommended that area surface drains be incorporated into the landscaping to discharge any excessive irrigation or rainwater that may accumulate in the planter area. These surface drains must be constructed in a manner that easy flow of surface water runoff is allowed into the pipe inlets.

27) **Foundations recommendations included in this report assume that the foundation soils will remain in their present unsaturated condition. Saturation of the foundation soils may result in differential movements in the foundation.** If it is anticipated that the proposed footings may be subjected to moisture intrusions due to storm water or any other sources, then a subdrain system should be considered for those areas which may be effected. Terrasearch, inc. will be pleased to provide such recommendations upon request.

28) To reduce pavement damage, landscape islands adjacent to paved parking areas should be equipped with an adequate sub-drain system to discharge irrigation water away from pavement and structures to a location approved by the project civil engineer.

GUIDELINES FOR REQUIRED SERVICES

The following list of services are the services required and must be provided by ***TERRASEARCH, inc.***, during the project development. These services are presented in check list format as a convenience to those entrusted with their implementation.

The items listed are included in the body of the report in detail. This list is intended only as an outline of the required services and does not replace specific recommendations and, therefore, must be used with reference to the total report. The degree of observation and frequency of testing services would depend on the construction methods and schedule, and the item of work.

The importance of careful adherence to the report recommendations cannot be overemphasized. It should be noted, however, that this report is issued with the understanding that each step of the project development will be performed under the direct observation of ***TERRASEARCH, inc.***

The use of this report by others presumes that they have verified all information and assume full responsibility for the total project.

	Item Description	Required	Not Required	Not Anticipated
1.	Provide foundation design parameters	X		
2.	Review grading plans and specifications	X		
3.	Review foundation plans and specifications	X		
4.	Observe and provide recommendations regarding demolition			X
5.	Observe and provide recommendations regarding site stripping	X		
6.	Observe and provide recommendations on moisture conditioning, removal, and/or compaction of unsuitable existing soils	X		
7.	Observe and provide recommendations on the installation of sub-drain facilities(if necessary)	X		
8.	Observe and provide testing services on fill areas and/or imported fill materials	X		
9.	Review as-graded conditions and provide additional foundation recommendations, if necessary	X		
10.	Observe and provide compaction tests on sanitary sewers, storm drain, water lines and PG&E trenches	X		
11.	Observe foundation excavations and provide supplemental recommendations, if necessary prior to placing concrete	X		
12.	Observe and provide moisture conditioning recommendations for foundation areas prior to placing concrete	X		
13.	Provide design parameters for retaining walls			X
14.	Provide geologic observations and recommendations for keyway excavations and cut slopes during grading		X	
15.	Excavate and re-compact all geologic trenches and/or test pits		X	
16.	Observe installation of sub-drain behind retaining walls			X

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. It should be noted that it is the responsibility of the owner or his representative to notify *TERRASEARCH, inc.*, in writing, a minimum of two working days before any clearing, grading, or foundation excavations can commence at the site.

2. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings and from a reconnaissance of the site. Should any variations or undesirable conditions be encountered during the development of the site, *TERRASEARCH, inc.*, will provide supplemental recommendations as dictated by the field conditions.

3. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are brought to the attention of the Architect and Engineer for the project and incorporated into the plans and that the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.

4. At the present date, the findings of this report are valid for the property investigated. With the passage of time, significant changes in the conditions of a property can occur due to natural processes or works of man on this or adjacent properties. In addition, legislation or the broadening of knowledge may result in changes in applicable standards. Changes outside of our control may render this report invalid, wholly or partially. Therefore, this report should not be considered valid after a period of two (2) years without our review, nor should it be used, or is it applicable, for any properties other than those investigated.

5. Not withstanding, all the foregoing applicable codes must be adhered to at all times.

APPENDIX A

Field Investigation

Site Plan

Logs of Test Borings

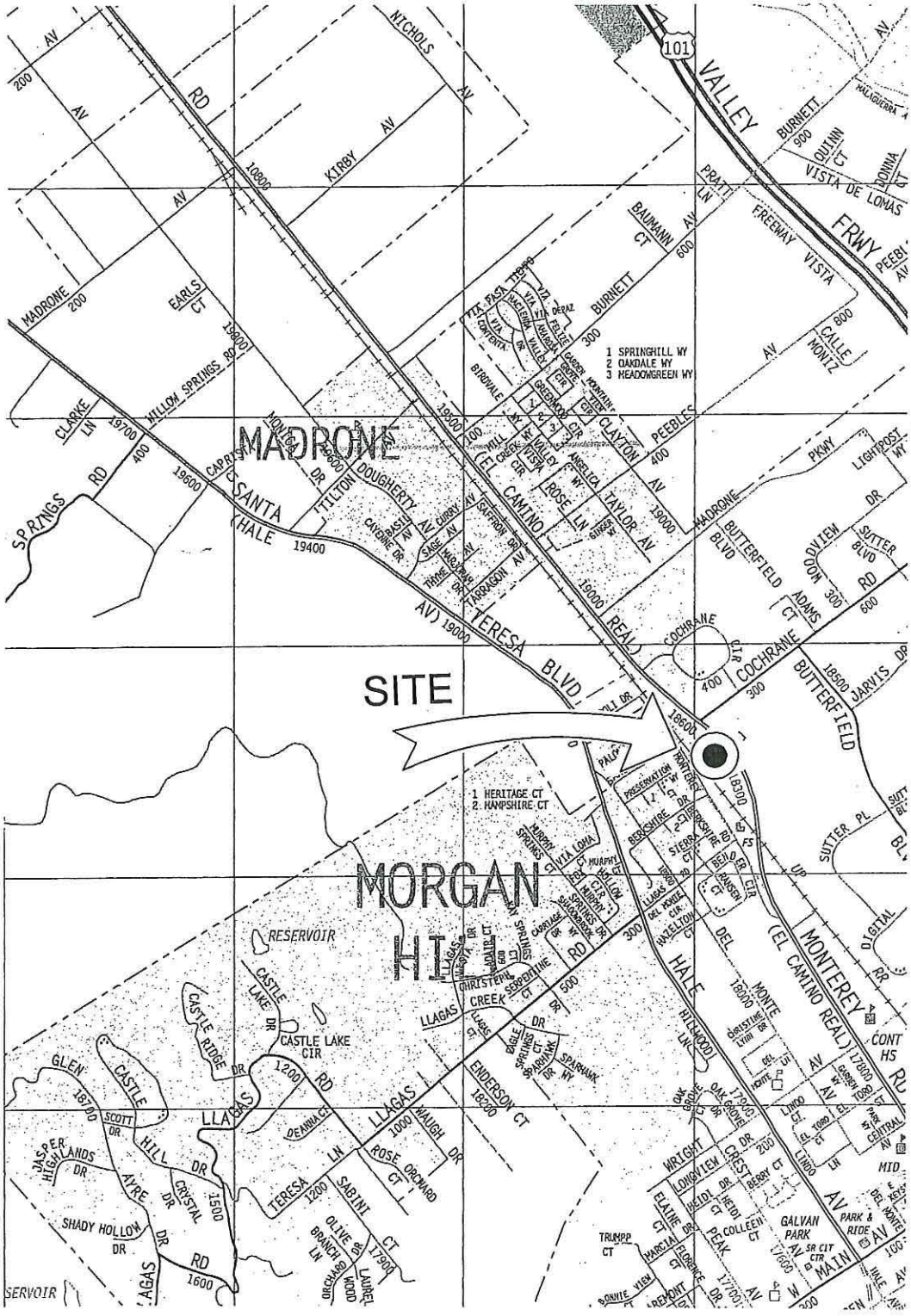
FIELD INVESTIGATION

The field investigation was performed on 26 April 2004 and included a reconnaissance of the site and the drilling of 3 exploratory borings at the approximate locations shown on Figure 2, "Site Plan."

The borings were drilled to a maximum depth of 30 feet below the existing ground surface. The drilling was performed with a Mobile B3500 truck mounted drilling equipment using power-driven, 6-inch diameter, continuous flight augers. Visual classifications were made from auger cuttings and the samples in the field. As the drilling proceeded, relatively undisturbed soil samples were obtained by means of a 2 ½ inch O. D. split spoon sampler containing 2 inch diameter brass liners. The sampler was advanced into the soil under the impact of a 140 pound hammer having a free fall of 30 inches. The number of blows required to advance the sampler 12 inches into the soil (after seating the sampler the first six inches) were adjusted to the standard penetration resistance (N-Value).Soil samples were taken of the surface soils, and the underlying silty fine sands.

The samples were sealed and returned to our laboratory for testing. Classifications made in the field were verified in the laboratory after further examination and testing.

The stratification of the soils, descriptions, and location of undisturbed soil samples are shown on the respective "Logs of Test Borings" contained within this appendix.



BASE: By Thomas Guide

1 inch = 1900 feet

Project No. 10218.G	May, 2004	LOCATION MAP	FIGURE NO. 1
TERRASEARCH, inc.		Gateway Center Morgan Hill, California	

LOGGED BY RJP DATE DRILLED 26 April 2004 BORING DIAMETER 6" BORING NO. B-1

Depth, ft.	Sample No. and Type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft-lbs	Qu - tsf Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
			Medium brown SAND & GRAVEL; damp, medium dense, Af	SW					
			Medium brown Silty CLAY; damp, medium stiff to hard	CL	12		110.8	14.0	c = 400psf ø = 30° LL = 28 PI = 12
5					39		116.5	15.6	
			Orangish brown Clayey Silty SAND; damp, dense	SM					
10			Medium brown SAND & GRAVEL; damp, dense, gravel sub-rounded to 2"ø	GW	28		123.3	7.7	
15									
			Slightly orange brown Silty CLAY; damp, hard, some gravel	CL					
20					>50		118.3	13.4	
25			@ 25' some rounded gravel to ¾"ø						
			@ 28½' heavy gravel	GW					
30			Terminated @ 30' bgs No Groundwater encountered						

TERRASEARCH, inc. | **PROJECT NO. 10218.G** | **FIGURE NO. 3**

LOGGED BY RJP DATE DRILLED 26 April 2004 BORING DIAMETER 6" BORING NO. B-2

Depth, ft.	Sample No. and Type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft-lbs	Qu - tsf Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
			Medium brown SILT, SAND & GRAVEL; damp, medium dense, Af	SW					
5			Medium brown f. Sandy SILT; damp, stiff	ML	10		106.7	11.8	
10			Medium brown Silty SAND & GRAVEL; damp, medium dense	SW	17		118.0	12.7	
15			Slightly orange brown Clayey SILT; damp, hard, some gravel	ML					
20			Terminated @ 20' bgs No Groundwater encountered						
25									
30									

TERRASEARCH, inc. | **PROJECT NO. 10218.G** | **FIGURE NO. 4**

LOGGED BY RJP DATE DRILLED 26 April 2004 BORING DIAMETER 6" BORING NO. B-3

Depth, ft.	Sample No. and Type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft-lbs	Qu - tsf Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
			Medium brown Silty CLAY; damp, hard	CL	32		109.7	18.6	
5			Orangish brown Clayey SAND; damp, dense, some Gravel	SC	37		123.0	8.9	
			Orange brown Silty SAND & GRAVEL; damp, dense	SW					
10					22		117.4	12.1	
15									
			Slightly orange brown Silty CLAY; damp, hard, some gravel	CL					
20					29		105.6	14.7	
			↓ increasing Clay						
25									
			Olive brown Silty CLAY; damp, stiff	CL					
30			Terminated @ 30' bgs No Groundwater encountered						

TERRASEARCH, inc. | **PROJECT NO. 10218.G** | **FIGURE NO. 5**

APPENDIX B

Laboratory Investigation

Summary of Laboratory Test Results

LABORATORY INVESTIGATION

The laboratory testing program was directed towards providing sufficient information for the determination of the engineering characteristics of the site soils so that the recommendations outlined in this report could be formulated.

Moisture content and dry density tests (ASTM D2937-83) were performed on representative relatively undisturbed soil samples in order to determine the consistency of the soil and the moisture variation throughout the explored soil profile as well as estimate the compressibility of the underlying soils.

The strength parameters of the foundation soils were determined from a direct shear test performed on a selected relatively undisturbed soil sample.

Soil expansivity characteristics were tested by means of plasticity tests performed on a select soil sample.

A summary of all laboratory test results is presented on TABLE 3 of this appendix and on the respective "Logs of Borings", Appendix A.

TABLE 3

Summary of Laboratory Test Results

				Atterberg Limits			
Sample No.	Depth (ft.)	Dry Density (p.c.f.)	Moisture Content (% Dry Wt.)	Liquid Limit (%)	Plasticity Index	Direct Shear Test c (psf)	Direct Shear Test Phi (°)
1-1	2	110.8	14.0	28	12	400	30°
1-2	5	116.5	15.6				
1-3	10	123.3	7.7				
1-4	20	118.3	13.4				
2-1	5	106.7	11.8				
2-2	10	118.0	12.7				
3-1	2	109.7	18.6				
3-2	5	123.0	8.9				
3-3	10	117.4	12.1				
3-4	20	105.6	14.7				

APPENDIX C

The Grading Specifications

Guide Specifications For Rock Under Floor Slabs

THE GRADING SPECIFICATIONS
on
Proposed Gateway Center
18605 Monterey Road
Morgan Hill, California

1. General Description

1.1 These specifications have been prepared for the grading and site development of the subject project. ***TERRASEARCH, inc.***, hereinafter described as the Soil Engineer, should be consulted prior to any site work connected with site development to ensure compliance with these specifications.

1.2 The Soil Engineer should be notified at least two working days prior to any site clearing or grading operations on the property in order to observe the stripping of organically contaminated material and to coordinate the work with the grading contractor in the field.

1.3 This item shall consist of all clearing or grubbing, preparation of land to be filled, filling of the land, spreading, compaction and control of fill, and all subsidiary work necessary to complete the grading of the filled areas to conform with the lines, grades, and slopes as shown on the accepted plans. The Soil Engineer is not responsible for determining line, grade elevations, or slope gradients. The property owner, or his representative, shall designate the person or organizations who will be responsible for these items of work.

1.4 The contents of these specifications shall be integrated with the soil report of which they are a part, therefore, they shall not be used as a self-contained document.

2. Tests

The standard test used to define maximum densities of all compaction work shall be the ASTM D1557-91 Laboratory Test Procedure. All densities shall be expressed as a relative compaction in terms of the maximum dry density obtained in the laboratory by the foregoing standard procedure.

3. Clearing, Grubbing, and Preparing Areas To Be Filled

3.1 All vegetable matter, trees, root systems, shrubs, debris, and organic topsoil shall be removed from all structural areas and areas to receive fill.

3.2 Any soil deemed soft or unsuitable by the Soil Engineer shall be removed. Any existing debris or excessively wet soils shall be excavated and removed as required by the Soil Engineer during grading.

3.3 If found, underground structures shall be removed from the site such as old foundations, abandoned pipe lines, septic tanks, and leach fields.

3.4 The final stripped excavation shall be approved by the Soil Engineer during construction and before further grading is started.

3.5 After the site has been cleared, stripped, excavated to the surface designated to receive fill, and scarified, it shall be disked or bladed until it is uniform and free from large clods. The native subgrade soils shall be moisture conditioned and compacted to the requirements as specified in the grading section of this report. Fill can then be placed to provide the desired finished grades. The contractor shall obtain the Soil Engineer's approval of subgrade compaction before any fill is placed.

4. Materials

4.1 All fill material shall be approved by the Soil Engineer. The material shall be a soil or soil-rock mixture which is free from organic matter or other deleterious substances. The fill material shall not contain rocks or lumps over 6 inches in greatest dimension and not more than 15% larger than 2-1/2 inches. Materials from the site below the stripping depth are suitable for use in fills provided the above requirements are met.

4.2 Materials existing on the site are suitable for use as compacted engineered fill after the removal of all debris and organic material. All fill soils shall be approved by the Soil Engineer in the field.

4.3 Should import material be required, it must meet the requirements as specified in the body of this report prior to transporting it to the project.

5. Placing, Spreading, and Compacting Fill Material

5.1 The fill materials shall be placed in uniform lifts of not more than 8 inches in uncompacted thickness. Each layer shall be spread evenly and shall be thoroughly blade mixed during the spreading to obtain uniformity of material in each layer. Before compaction begins, the fill shall be brought to a water content that will permit proper compaction by either (a) aerating the material if it is too wet, or (b) spraying the material with water if it is too dry.

5.2 After each layer has been placed, mixed, and spread evenly, either import material or native material shall be compacted to a relative compaction of 90% at a moisture content above optimum as determined by ASTM D1557-91 Laboratory Test Procedure.

5.3 Compaction shall be by footed rollers or other types of acceptable compacting rollers. Rollers shall be of such design that they will be able to compact the fill to the specified density. Rolling shall be accomplished while the fill material is within the specified moisture content range. Rolling of each layer shall be continuous over its entire area and the roller shall make sufficient trips to ensure that the required density has been obtained. No ponding or jetting shall be permitted.

5.4 Field density tests shall be made in each compacted layer by the Soil Engineer in accordance with Laboratory Test Procedure ASTM D2922-91 and D3017-88. When footed rollers are used for compaction, the density tests shall be taken in the compacted material below the surface disturbed by the roller. When these tests indicate that the compaction requirements on any layer of fill, or portion thereof, has not been met, the particular layer, or portion thereof, shall be reworked until the compaction requirements have been met.

5.5 No soil shall be placed or compacted during periods of rain nor on ground which contains free water. Soil which has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limits hereinbefore described or approved by the Soil Engineer. Approval by the Soil Engineer shall be obtained prior to continuing the grading operations.

6. Pavement

6.1 The proposed subgrade under pavement sections, native soil, and/or fill shall be compacted to a minimum relative compaction of 95% at a moisture content slightly above optimum for a depth of 6 inches.

6.2 All aggregate base material placed subsequently should also be compacted to a minimum relative compaction of 95% based on the ASTM Test Procedure D1557-91. The construction of the pavement in the parking and traffic areas should conform to the requirements set forth by the latest Standard Specifications of the Department of Transportation of the State of California and/or City of Morgan Hill, Building and Engineering Services Department.

6.3 It is recommended that soils at the proposed subgrade level be tested for a pavement design after the preliminary grading is completed and the soils at the site design subgrade levels are known.

7. Utility Trench Backfill

7.1 The utility trenches extending under concrete slabs-on-grade shall be backfilled with native on-site soils or approved import materials and compacted to the requirements pertaining to the adjacent soil. No ponding or jetting will be permitted.

7.2 Utility trenches extending under all pavement areas shall be backfilled with native or approved import material and properly compacted to meet the requirements set forth by the City of San Jose, Department of Public Works.*

*NOTE: Requirements of City to be added.

7.3 Where any opening is made under or through the perimeter foundations for such items as utility lines and trenches, the openings must be resealed so that they are watertight to prevent the possible entrance of outside irrigation or rain water into the underneath portion of the structures.

8. Subsurface Line Removal

8.1 The methods of removal will be designated by the Soil Engineer in the field depending on the depth and location of the line. One of the following methods will be used.

8.2 Remove the pipe and fill and compact the soil in the trench according to the applicable portions of sections pertaining to compaction and utility backfill.

8.3 The pipe shall be crushed in the trench. The trench shall then be filled and compacted according to the applicable portions of Section 5.

8.4 Cap the ends of the line with concrete to prevent entrance of water. The length of the cap shall not be less than 5 feet. The concrete mix shall have a minimum shrinkage.

9. Unusual Conditions

In the event that any unusual conditions not covered by the special provisions are encountered during the grading operations, the Soil Engineer shall be immediately notified for additional recommendations.

GUIDE SPECIFICATIONS FOR ROCK UNDER FLOOR SLABS

Definition

Graded gravel or crushed rock for use under slabs-on-grade shall consist of a minimum thickness of mineral aggregate placed in accordance with these specifications and in conformance with the dimensions shown on the plans. The minimum thickness is specified in the accompanying report.

Material

The mineral aggregate shall consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination thereof. The aggregate shall be free from deleterious substances. It shall be of such quality that the absorption of water in a saturated dry condition does not exceed 3% of the oven dry weight of the sample.

Gradation

The mineral aggregate shall be of such size that the percentage composition by dry weight, as determined by laboratory sieves (U.S. Sieves) will conform to the following gradation:

Sieve Size	Percentage Passing
¾"	90-100
No. 4	25-40
No. 8	18-33
No. 200	0-3

Placing

Subgrade, upon which gravel or crushed rock is to be placed, shall be prepared as outlined in the accompanying soil report.

Appendix D

Phase I and Phase II Environmental Site Assessment

Appendix D

Phase I and Phase II Environmental Site Assessment

Phase I and II Environmental Site Assessment
18545 – 18565 Monterey Street
Morgan Hill, California 95037

July 8, 2021

Prepared for:

City Ventures
444 Spear Street, Suite 200
San Francisco, CA 94105

Prepared by:

Stantec Consulting Services Inc.
735 East Carnegie Drive, Suite 280
San Bernardino, California 92408

Project No.: 185805226

Sign-off Sheet and Signatures of Environmental Professionals

This document entitled Phase I and II Environmental Site Assessment was prepared by Stantec Consulting Services Inc. (“Stantec”) for the account of City Ventures (the “Client”). Any reliance on this document by any third party is strictly prohibited. Any use which a third party makes of this document is the responsibility of such third party.

All information, conclusions, and recommendations provided by Stantec in this document regarding the Phase I ESA have been prepared under the supervision of and reviewed by the professionals whose signatures appear below.

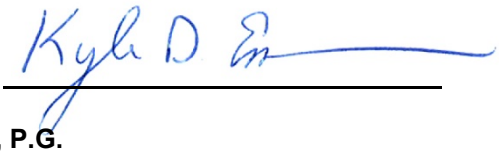
Author: 

Debbie Hernandez
Staff Geologist

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 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Quality Reviewer: 

Alicia Jansen
Associate Scientist

Independent Reviewer: 

Kyle Emerson, C.E.G., P.G.
Managing Principal Geologist

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Abbreviations

AAI	All Appropriate Inquiry
ACM	Asbestos-containing material
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
BER	Business Environmental Risk
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulation
CREC	Controlled Recognized Environmental Conditions
EP	Environmental Professional
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
ft msl	Feet above mean sea level
HREC	Historical Recognized Environmental Conditions
LBP	Lead-based paint
LUST	Leaking Underground Storage Tank
NESHAP	National Emissions Standard for Hazardous Air Pollutants
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
TSCA	Toxic Substance Control Act
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank
VEC	Vapor Encroachment Condition
VOCs	Volatile Organic Compounds

1.0 SUMMARY

Stantec Consulting Services Inc. (Stantec) has completed a Phase I Environmental Site Assessment (ESA) report of the property located at 18545 and 18565 Monterey Street, City of Morgan Hill, County of Santa Clara, California (the "Property"), on behalf of City Ventures (the "Client"). The work was performed according to the Master Services Agreement between Stantec and the Client (the "MSA"). City Ventures (the "User") has been designated as the User of this report.

The Phase I ESA was conducted in conformance with the requirements of ASTM International (ASTM) Designation E 1527-13, and All Appropriate Inquiries (AAI) as defined by the US-EPA in Title 40 of the Code of Federal Regulations, Part 312, except as may have been modified by the scope of work, and terms and conditions, requested by the Client. Any exceptions to, or deletions from, the ASTM or AAI practice are described in Section 2.3.

The Property consists of approximately 4.17 acres of primarily undeveloped land with a small portion of an asphalt parking lot. Surrounding properties consists of a Starbucks, a hair salon, convenience store and gas station, railroad tracks, and residential community. A Property location map is illustrated on Figure 1. A Property map illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

During the site reconnaissance, Stantec observed evidence of a prior homeless encampment and two propane tanks in the southern portion of the Property. Additionally, an open approximately 35-gallon unlabeled steel cylinder was observed with an unknown liquid with potential petroleum sheen. Stantec recommends this liquid be profiled and disposed of in accordance with applicable regulatory requirements.

Railroad tracks appear adjacent to the west-southwest of the Property. The presence of railroad tracks adjacent to the Property can be a potential concern due to the possible use of herbicides containing heavy metals (*i.e.*, arsenic and lead) for weed abatement along the railroad tracks. Accordingly, Stantec recommended collection of soil samples for chemical analysis to determine if pesticides or heavy metals associated with herbicides were present at levels that may represent a concern to residential development.

The Phase II Subsurface Investigation

To evaluate the adjacent railroad tracks discussed above, Stantec completed a Phase II ESA at the Property on June 23, 2021. The scope of the investigation included the hand augering and sampling of four (4) soil borings (HA-1 through HA-4) to approximately 3-feet below ground surface (bgs) adjacent to the west-southwestern Property boundary near the railroad tracks.

Soil samples were collected at 0.5 to 1.0, 1.5 to 2.0, and 2.5 to 3.0-foot depth intervals for potential analysis of lead and arsenic. The deeper soil samples (1.5 to 2.0, and 2.5 to 3.0) were placed on hold pending the analysis of the shallow samples from 0.5 to 1.0 feet bgs A total of four (4) soil samples were submitted for laboratory analysis of the metals arsenic and lead by USEPA test method 6010B.

Lead was detected at concentrations ranging from 1.8 to 18 milligrams per kilogram (mg/kg). These concentrations are well below the San Francisco Bay Regional Water Quality Control Board (SFRWQCB)

Environmental Screening Level (ESL) for residential use of 32 mg/kg, and also below the Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) residential screening level of 80 mg/kg for lead. Therefore, lead is not considered a concern to the site.

Arsenic was detected in all of the shallow soil samples at concentrations ranging from 5.9 to 28 mg/kg. These concentrations are above the ESL for residential use of 0.067 mg/kg and above the California naturally-occurring regional background levels of 0.6 to 11.0 mg/kg (Table 1). Therefore, the deeper soil samples from the 2.0 and 3.0-feet interval were analyzed for arsenic from borings HA-1, HA-2, and HA-3. Arsenic was detected in all of the deeper soil samples at concentrations ranging from 6.7 to 64 mg/kg. Based on these soil samples the vertical and lateral limits of arsenic impacted soil was not defined on the Property by the completed assessment. Further vertical and lateral assessment will be necessary to define these limits.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 of 18545 and 18565 Monterey Street, City of Morgan Hill, County of Santa Clara, California or the "Property." Any exceptions to, or deletions from, this practice are described in the Data Gaps section of this report. This assessment has revealed evidence of the following recognized environmental conditions (RECs) in connection with the Property:

- **Elevated Arsenic Impacts.** Based on the Phase II subsurface investigation results, the elevated detections of arsenic exceed regulatory screening criteria and naturally occurring background levels and are considered a REC to the Property. Stantec recommends further lateral and vertical delineation to determine the estimated quantity of arsenic impacted soil that will need to be addressed prior to residential redevelopment.

Stantec has identified the following non-ASTM issues related to the Property:

- **Petromat.** Stantec observed a small portion of an asphalt parking lot associated with the adjacent Starbucks. Given that Petromat is a stress-absorbing fabric often associated with asphalt, and it sometimes contains asbestos, Stantec recommends coring the asphalt parking to evaluate if Petromat is present between the asphalt layers and/or native soils to determine whether any special handling or disposal precautions are necessary due to the presence of asbestos.

The preceding summary is intended for informational purposes only. Reading of the full body of this report is recommended.

2.0 INTRODUCTION

The objective of this Phase I ESA was to perform All Appropriate Inquiries (AAI) into the past ownership and uses of the Property consistent with good commercial or customary practice as outlined by ASTM International (ASTM) in "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", Designation E1527-13. "All Appropriate Inquiries" (AAI) is the process for evaluating a property's environmental conditions for the purpose of qualifying for landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). following final rule of Part 312 of Title 40, Code of Federal Regulations (40 CFR Part 312). The purpose of this Phase I ESA was to identify adverse environmental conditions including recognized environmental conditions ("RECs") associated with the Property.

The ASTM E1527-13 standard indicates that the purpose of the Phase I ESA is to identify RECs, including historical recognized environmental conditions ("HRECs") and controlled recognized environmental conditions ("CRECs") that may exist at a property. The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property:

1. Due to any release to the environment;
2. Under conditions indicative of a release to the environment; or
3. Under conditions that pose a material threat of a future release to the environment.

ASTM defines a "HREC" as a REC that has occurred in connection with a property, but has been addressed to the satisfaction of the applicable regulatory authority and meets current unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a HREC, the environmental professional (EP) must determine whether the past release is a REC when the current Phase I ESA is conducted (e.g., if there has been a change in the regulations). If the EP considers the past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.

ASTM defines a "CREC" as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), but with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls).

As defined by ASTM, RECs can include hazardous substances or petroleum products present under conditions in compliance with laws if that presence represents a material threat of future release. The presence of hazardous substances or petroleum products is, however, not a REC if that presence is a *de minimis* condition. *De minimis* conditions are minor occurrences of contamination that generally do not present a material risk to human health and would not likely be subject to enforcement action if brought to the attention of governmental agencies. ASTM also considers the potential for a business environmental risk (BER), defined as a risk which can have a material environmental or environmentally-driven impact on



the business associated with the current or planned use of the Property, not necessarily limited to those environmental issues required to be investigated by the ASTM standard. Consideration of BERs may involve addressing one or more ASTM non-scope considerations.

This Phase I ESA was conducted in accordance with the MSA. The scope of work conducted during this Phase I ESA consisted of a visual reconnaissance of the Property, interviews with key individuals, and review of reasonably ascertainable documents. The scope of work did not include an assessment for environmental regulatory compliance of any facility ever operated at the Property (past or present), or sampling and analyzing of environmental media. Stantec was not contracted to perform an independent evaluation of the purchase or lease price of the Property and its relationship to current fair market value. The conclusions presented in this Phase I ESA report are professional opinions based on data described herein. The opinions are subject to the limitations described in Section 2.3.

ASTM E1527-13 notes that the availability of record information varies from source to source. The User or EP is not obligated to identify, obtain, or review every possible source that might exist with respect to a property. Instead, ASTM identifies record information that is reasonably ascertainable from standard sources. “Reasonably ascertainable” means:

1. Information that is publicly available;
2. Information that is obtainable from its source within reasonable time and cost constraints; and
3. Information that is practicably reviewable.

2.1 PROPERTY DESCRIPTION

The Property consists of approximately 4.17 acres of primarily undeveloped land with a small portion of an asphalt parking lot. Surrounding properties consists of a Starbucks, a hair salon, convenience store and gas station, railroad tracks, and residential community. A Property location map is illustrated on Figure 1. A Property map illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

The Assessor Parcel Numbers (APNs) associated with the Property are 764-10-013 and 764-10-015. The Property Owner is identified as Oanh Oanh Nguyen Trinh and Nhat Huu Hoang and Ngoc Tram Thi Nguyen.

2.2 SPECIAL TERMS, CONDITIONS, AND ADDITIONAL ASSUMPTIONS

There were no special terms, conditions, or additional assumptions associated with this Phase I ESA.

2.3 EXCEPTIONS AND LIMITING CONDITIONS

This report documents work that was performed in accordance with the MSA. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report.

This report provides an evaluation of specified environmental conditions associated with the identified property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. 40 CFR 312.20(f)(2) requires that the Environmental Professional evaluate the thoroughness and reliability of provided information. Stantec can neither warrant nor guarantee such thoroughness or reliability, however.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the preparation of this report, and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition.

Project Specific limiting conditions are provided in Section 2.2.

The conclusions are based on the site conditions encountered by Stantec at the time of the work. Accordingly, additional studies and actions may be required. The identification of non-environmental risks to structures or people on the Property is beyond the scope of this assessment.

Stantec specifically disclaims any responsibility to update the conclusions in this report if new or different information later becomes available or if the conditions or activities on the property subsequently change. In the event of any conflict between the terms and conditions of this report and the terms and conditions of the MSA, the MSA shall control.

2.4 PERSONNEL QUALIFICATIONS

This Phase I ESA was conducted by, or under the supervision of, an individual that meets the ASTM definition of an EP. The credentials of the EP and other key Stantec personnel involved in conducting this Phase I ESA are provided in Appendix B.

3.0 USER-PROVIDED INFORMATION

ASTM E1527-13 describes responsibilities of the User to complete certain tasks in connection with the performance of "All Appropriate Inquiries" into the Property. The ASTM standard requires that the EP request information from the User on the results of those tasks because that information can assist in the identification of RECs, CRECs, HRECs, or *de minimis* conditions in connection with the Property. Towards that end, Stantec requested that the User provide the following documents and information:

Description of Information	Provided (Yes / No)	Description and/or Key Findings
User Questionnaire and/or Interview	Yes	The user is not aware of any environmental issues and/or environmental liens, and activity use limitations associated with the Property.
Environmental Liens or Activity Use Limitations	Yes	No environmental liens and/or activity use limitations were identified in the First American Title Company Preliminary Report dated June 3, 2021.
Previous Environmental Permits or Reports Provided by User	No	The user reportedly does not possess any of these documents.
Purpose of the Phase I ESA	Yes	Due diligence

Stantec forwarded the ASTM recommended User Questionnaire to Mr. Kian Malek, Development Associate with City Ventures. The completed User Questionnaire returned to us by Mr. Malek is included in Appendix C.

4.0 RECORDS REVIEW

The objective of consulting historical sources of information is to develop the history of the Property and surrounding area and evaluate if past uses may have resulted in RECs. Physical setting records are evaluated to determine if the physical setting may have contributed to adverse environmental conditions in connection with the Property. During the review of historical records, Stantec attempted to identify uses of the Property from the present to the first developed use of the Property. Stantec's research included the reasonably ascertainable and useful records described in this section.

4.1 PHYSICAL SETTING

A summary of the physical setting of the Property is provided in the table below with additional details in the following subsections

Topography:	The Property is at an elevation of 352 feet above mean sea level. The regional topographic gradient is relatively flat with general topographic gradient to the southwest (EDR, 2021).
Soil/Bedrock Data:	The subsurface in the vicinity of the Property consists of sandy fine-grained sediments (clay and silt) with minor amounts of coarse-grained sediments (silty sand and sand) to a maximum depth of 27 feet below ground surface (bgs) (Cambria, 1998).
Estimated Depth to Groundwater/ Estimated Direction of Gradient:	Depth to groundwater in the vicinity of the Property ranges from 30.38 to 34.27 feet below top of well casing with an easterly groundwater flow direction (Conestoga-Rovers & Associates, 2012).
NOTE: Site-specific groundwater flow direction and depth can only be determined by conducting site-specific testing, which Stantec has not conducted.	

4.1.1 Property Topography and Surface Water Flow

The Property is at an elevation of 352 feet above mean sea level. The regional topographic gradient is relatively flat with general topographic gradient to the southwest (EDR, 2021). Based on the topography, surface water on the Property infiltrates the ground surface.

4.1.2 Regional and Property Geology

The Property is located in Santa Clara County. The area is located within the Coast Ranges Geomorphic Province, which includes northwest-southeast trending mountain ranges and valleys that have been developed by the San Andreas Fault system (California Geological Survey [CGS], 2002). The Property sits in a valley between the Santa Cruz Mountains to the west and the Diablo Range to the east. The stratigraphy underlying the Site consists primarily of recent-age alluvium (CDMG, 1961).

According to the *Site Investigation Report* for the Former Shell Service Station located at 17905 Monterey Street, Morgan Hill, California prepared by Cambria Environmental Technology, Inc. (Cambria) dated July 31, 1998, the subsurface in the vicinity of the Property consists of sandy fine-grained sediments (clay and silt) with minor amounts of coarse-grained sediments (silty sand and sand) to a maximum depth of 27 feet below ground surface (bgs).

The closest mapped recently active fault is the Calaveras Fault located approximately 4 miles northeast (CGS, 2011). According to official maps of California, the Property is not located within an Alquist-Priolo (AP) Earthquake Fault Zone boundary (CDMG, 2000).

4.1.3 Regional and Property Hydrogeology

The Property is located within the South Santa Clara Valley Basin (305.30), within the Pajaro River Hydrologic Unit (305.00) (California Regional Water Quality Control Board [CRWQCB], 1995). According to the Groundwater Monitoring Report – Third Quarter 2012 for the Former Shell Service Station prepared by Conestoga-Rovers & Associates, depth to groundwater ranges from 30.38 to 34.27 feet below top of well casing with an easterly groundwater flow direction.

4.2 FEDERAL, STATE AND TRIBAL ENVIRONMENTAL RECORDS

A regulatory agency database search report was obtained from Environmental Data Resources (EDR), a third-party environmental database search firm. A complete copy of the database search report, including the date the report was prepared, the date the information was last updated, and the definition of databases searched, is provided in Appendix D.

Stantec evaluated the information listed within the database relative to potential impact to the Property, assessing the potential for impacts based in part on the physical setting. As part of this process, inferences have been made regarding the likely groundwater flow direction at or near the Property. As described in 4.1.3, the groundwater flow direction is reportedly to the east. Observations about the Property and surrounding sites made during the Property reconnaissance are provided in more detail in Section 5.

4.2.1 Listings for Property

The Property was not identified in the environmental database report.

4.2.2 Listings for Nearby Sites with Potential to Impact Property

Stantec assessed data presented in the environmental agency database search report to evaluate the potential for conditions on adjacent and nearby sites to pose a REC, CREC, or HREC for the Property. The evaluation included an opinion of the potential for contamination by hazardous substances or petroleum products to migrate to the Property from a nearby site, including by vapor migration or encroachment (i.e., potential for a vapor encroachment condition [VEC]).

Based on this evaluation, the following individual facilities were identified as the most likely potential sources of impact to the Property. The basis for why each of the following listed databases creates or does not create a REC for the property is also provided.

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
BP 07097 / Vision of Success Inc ARCO AM PM / ARCO 07097 / Morgan Hill Fuel 18605 Monterey Road Morgan Hill, CA 95037	RCRA-VSQG; CERS HAZ WASTE; CERS TANKS; CUPA Listings; HAZNET; RCRA NonGen/NLR; UST; EDR Hist Auto; CUPA Listings; HAZNET; CERS; HWTS	Approximately 200 feet to the north-northwest (EDR incorrectly reports 11 feet to north-northwest)	No
The facility is an active gasoline station with a convenience store since 2010. Multiple administration violations were issued; however, the violations were corrected and there were no reported releases. The underground storage tanks and fuel dispenser islands are located over 200 feet to the north-northwest of the northern-most site boundary. Given there is no evidence of a release and the distance from the USTs and dispenser islands, the facility is not considered an environmental concern to the Property and Stantec recommends no further investigation regarding this issue.			
Morgan Hill Fire Department 18300 Old Monterey Road Morgan Hill, CA 95037	CUPA Listings; EMI; HAZNET; CERS; HWTS	Approximately 117 feet to the south	No
The facility is listed as a fire department with an air discharge permit with the Bay Area Air Quality Management District for the release of small amounts of carbon monoxides, total organic hydrocarbon gases, reactive organic gases, nitrogen, and particulate matter with no reported violations. Multiple administration violations were issued; however, the violations were corrected and there were no reported releases. Given there is no evidence of a release, the facility is not considered an environmental concern to the Property and Stantec recommends no further investigation regarding this issue.			
D&T Construction Co. 18375 Old Monterey Road Morgan Hill, CA 95037	SWEEPS UST; HIST UST; CA FID UST	Approximately 275 feet to the southwest	No
The facility is listed as having one 500-gallon gasoline UST in 1984. No additional information was provided or available online. Given the facility is not adjacent and there is no evidence of a release, the facility is not considered an environmental concern to the Property and Stantec recommends no further investigation regarding this issue.			

The remaining listings in the database search report, including listings of Orphan Sites, provided in Appendix D, do not represent a REC.

4.3 LOCAL/REGIONAL ENVIRONMENTAL RECORDS

Stantec checked the following sources to obtain information pertaining to Property use and/or indications of RECs in connection with the Property:

4.3.1 Santa Clara County Department of Environmental Health Services

Agency Name Contact Information	Finding
Santa Clara County Department of Environmental Health Services http://lustop.sccgov.org/ Date searched: June 17, 2021	Stantec submitted a records request to the Santa Clara County Department of Environmental Health (SCCDEH) to research whether any documents were on file for the addresses for the Site. According to the website, all documents submitted to the SCCDEH are uploaded to the Regional Water Quality Control Board's online database Geotracker. There are no records listed for the Property address on Geotracker.

4.3.2 California Geologic Energy Management Division (CalGEM)

Agency Name, Contact Information	Findings
California Geologic Energy Management Division (CalGEM) 5816 Corporate Avenue, Suite 200 Cypress, CA 90630 Online database: https://maps.conservation.ca.gov/doggr/wellfinder Date searched: June 17, 2021	Stantec searched for oil wells on the California Geologic Energy Management Division (CalGEM), formerly Division of Oil, Gas, and Geothermal Resources (DOGGR) online database. No oil wells were located within a one-mile radius of the Property.

4.3.3 Department of Toxic Substances Control (DTSC)

Agency Name, Contact Information	Findings
Department of Toxic Substance Control Online database: https://www.envirostor.dtsc.ca.gov Date searched: June 17, 2021	No records were available for the Property address or adjoining properties on the DTSC Envirostor website. Additionally, according to a letter dated June 15, 2021, the DTSC does not have any records associated with the Property addresses.

4.3.4 California State Water Resources Control Board

Agency Name, Contact Information	Findings
California State Water Resources Control (SWRCB) Online database: https://geotracker.waterboards.ca.gov/ Date searched: June 17, 2021	No records were available for the Property address or adjoining properties on the SWRCB Geotracker website.

4.3.5 Fire Department

Agency Name Contact Information	Finding
Santa Clara County Fire Department 14700 Winchester Boulevard Los Gatos, California Phone (408) 378-4010	According to an email dated June 11, 2021, the Property is located within the jurisdiction of the Morgan Hill Fire Department.
City of Morgan Hill Fire Department 15670 Monterey Road Morgan Hill, CA 95037 Phone: (408) 779-2121	On June 11, 2021, Stantec submitted a file review request to the City of Morgan Hill Fire Development. At the time of this report, Stantec has not received a response. Should any pertinent files become available, Stantec will review the files and provide an addendum to the Phase I ESA. Based on its review of other sources, however, Stantec considers it unlikely that any records from this agency would alter the conclusions or recommendations of this report. The lack of this information does not represent a significant data gap.

4.3.6 Local Building and/or Planning Department Records

Agency Name, Contact Information	Findings
City of Morgan Hill Community Development 17575 Peak Avenue Morgan Hill, CA 95037	On June 11, 2021, Stantec submitted a file review request to the City of Morgan Hill Community Development. At the time of this report, Stantec has not received a response from the City of Morgan Hill regarding the request. Should any pertinent files become available, Stantec will review the files and provide an addendum to the Phase I ESA. Based on its review of other sources, however, Stantec considers it unlikely that any records from this agency would alter the conclusions or recommendations of this report. The lack of this information does not represent a significant data gap.

4.4 HISTORICAL RECORDS REVIEW

4.4.1 Land Title Records/Deeds

limitations were identified in the First American Title Company Preliminary Report dated June 3, 2021. A copy of the title report is provided in Appendix C. No other land title records were reviewed by Stantec as part of this assessment.

4.4.2 Aerial Photographs

Stantec reviewed historical aerial photographs provided by EDR. The general type of activity on a property and land use changes can often be discerned from the type and layout of structures visible in the photographs. However, specific elements of a facility's operation usually cannot be discerned from aerial photographs alone. The following table summarizes Stantec's observations of the reviewed historical aerial photographs.

Year	Scale	Observations, Property and Adjoining Properties
1939 1940 1948 1950 1956 1963 1968 1970	1" = 500'	The Property and surrounding area appear to be vacant land. An east-west road appears to bisect the northern portion of the Property. Railroad tracks appear along the western perimeter. A road appears along the eastern perimeter beyond which are orchards.
1974 1982	1" = 500'	The Property and adjoining land appear similar to the previous photographs. Residential structures appear to the west beyond the railroad tracks and road. A fire station appears to the southwest beyond the railroad tracks in the 1982 aerial photograph.
1998	1" = 500'	The Property and adjoining land appear similar to the previous photographs. An increase in residential structures appears to the west. Commercial development appears to the north. Vacant land appears to the east beyond the roadway.
2006	1" = 500'	The Property remains vacant land. Commercial development included the current gas station appear to the north of the Property.
2009 2012 2016	1" = 500'	The Property remains vacant land. An increase in residential development appears to the northeast. Vacant land remains to the southeast.

Name of aerial photograph source: EDR, 2021

4.4.3 City Directories

Stantec retained a third party to research available reverse city directories for the Property, in approximately five-year intervals. The Property addresses were not listed in the city directory image report. The majority of the listings for the surrounding area were residential. The property to the north (18585 and 18605 Monterey Street) were identified as a hair salon, Starbucks, and gas station between 2017 and 2010. The complete city directory abstract is provided in Appendix E.

4.4.4 Historical Fire Insurance Maps

Fire insurance maps were developed for use by insurance companies to depict facilities, properties, and their uses for many locations throughout the United States. These maps provide information on the history of prior land use and are useful in assessing whether there may be potential environmental contamination on or near the Property. These maps, which have been periodically updated since the late 19th century, often provide valuable insight into historical Property uses.

Stantec requested fire insurance maps from Environmental Data Resources (EDR); however, no coverage exists for the Property. The Sanborn® Map Search Report indicating "no coverage" is presented in Appendix E.

4.4.5 Historical Topographic Maps

Stantec reviewed historical identify map USGS 7.5-minute Topographic Maps of the Morgan Hill and Mount Madonna, California Quadrangles (scale 1:24,000) to help identify past Property usage and areas of potential environmental concern.

Copies of the historical maps are provided in Appendix E. The following table summarizes the maps reviewed and our observations.

Year	Scale	Observations, Property and Adjoining Sites
1917	1:62500	The Property is depicted adjacent to railroad tracks north of the city of Morgan Hill. No site features are depicted on the Property or surrounding area.
1939	1:62500	The Property is depicted as vacant land. A road appears adjacent to the east beyond which is agricultural land.
1955 1966 1973 1980	1:62500 1:24000	The Property remains depicted as vacant land. Orchards and small structures appear to the west beyond the railroad tracks and roadway. Vacant land appears to the east.
2012	1:24000	No details are depicted on the site map. Roadways appear in the current configuration.

Name of maps and source: EDR, 2021

5.0 SITE RECONNAISSANCE

A visit to the Property and its vicinity was conducted by Mr. Jaylen Gregory, Staff Geologist with Stantec, on June 15, 2021. Access to the Property was provided by Mr. David Shelly of City Ventures. Stantec was unaccompanied during the Property visit. Figure 2 provides information about the Property and adjoining sites and the location of potential areas of environmental concern. Detailed Property features are provided on Figure 2. Photographs collected during the Property visit are included in Appendix A.

5.1 SITE RECONNAISSANCE METHODOLOGY

The site reconnaissance focused on observation of current conditions and observable indications of past uses and conditions of the Property that may indicate the presence of RECs. The reconnaissance of the Property was conducted on foot and Stantec utilized the following methodology to observe the Property:

- Traverse the outer Property boundary.
- Traverse transects across the Property.

Weather conditions during the visit to the Property were clear and sunny. There were no weather-related Property access restrictions encountered during the reconnaissance visit. Interior access to the storage container and Outlaw Customs and Classics was not provided.

5.2 GENERAL DESCRIPTION

Property and Area Description:	The Property is located to the west of the intersection of Jarvis Drive and Old Monterey Road in the City of Morgan Hill, County of Santa Clara, California. The surrounding area is primarily residential.
Property Operations.	The Property consists of undeveloped land and a portion of an asphalt parking lot associated with a Starbucks and hair salon.
Structures, Roads, Other Improvements:	The Property consists of undeveloped land and a portion of an asphalt parking lot.
Property Size (acres):	4.17 acres
Estimated % of Property Covered by Buildings and/or Pavement:	5%
Observed Current Property Use/Operations:	The Property consists of undeveloped land and a portion of an asphalt parking lot associated with a Starbucks and hair salon.
Observed Evidence of Past Property Use(s):	None observed.
Sewage Disposal Method (and age):	Not applicable.
Potable Water Source:	Not applicable.
Electric Utility:	Not applicable.

5.3 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

The following table summarizes Stantec's observations during the Property reconnaissance.

Observations	Description/Location
Hazardous Substances and Petroleum Products as Defined by CERCLA 42 U.S.C. § 9601(14):	None observed.
Drums (≥ 5 gallons):	None observed.
Strong, Pungent, or Noxious Odors:	None observed.
Pools of Liquid:	None observed.
Unidentified Substance Containers:	None observed.
PCB-Containing Equipment:	None observed.
Other Observed Evidence of Hazardous Substances or Petroleum Products:	Two propane tanks were observed in the southern portion of the Property. An open approximately 35-gallon unlabeled steel cylinder was observed with an unknown liquid with potential petroleum sheen. Stantec recommends this liquid is profiled and disposed of in accordance with applicable regulatory requirements.

5.4 INTERIOR OBSERVATIONS

Given there are no structures on the Property this section of the report is not applicable.

Observations	Description
Heating/Cooling Method:	Not applicable.
Surface Stains or Corrosion:	Not applicable.
Floor Drains and Sumps:	Not applicable.
Other Interior Observations:	Not applicable.

5.5 EXTERIOR OBSERVATIONS

Stantec made the following observations during the site reconnaissance of exterior areas of the Property and/or identified the following information during the interview or records review portions of the assessment:

Observations	Description
On-site Pits, Ponds, or Lagoons:	None observed.
Stained Soil or Pavement:	None observed.
Stressed Vegetation:	None observed.
Waste Streams and Waste Collection Areas:	An abandoned homeless encampment was observed in the southern portion of the Property. Miscellaneous debris was observed throughout the southern portion of the Property.

Observations	Description
Solid Waste Disposal:	No areas indicative of solid waste disposal were observed.
Potential Areas of Fill Placement:	No mounds, piles, or depressions suggesting the placement of fill material were observed on the Property.
Wastewater:	No exterior wastewater discharge was observed.
Stormwater:	Water is expected to infiltrate the exposed ground surface.
Wells:	None observed.
Septic Systems:	No visible evidence of the existence of a septic system was observed.
Other Exterior Observations:	Stantec observed a small portion of an asphalt parking lot associated with the adjacent Starbucks. Given that Petromat is a stress-absorbing fabric often associated with asphalt, and it sometimes contains asbestos, Stantec recommends coring the asphalt parking to evaluate if Petromat is present between the asphalt layers and/or native soil.

5.6 UNDERGROUND STORAGE TANKS/STRUCTURES

Existing USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches), which would indicate the presence of USTs, was discovered during the site reconnaissance.
Former USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches), which would indicate the historical presence of USTs, was discovered during the site reconnaissance.
Other Underground Structures:	None observed.

5.7 ABOVEGROUND STORAGE TANKS

Existing ASTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface stains), which would indicate the presence of ASTs, was discovered during the site reconnaissance.
Former ASTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface stains), reports, or other evidence of the former presence of ASTs was discovered during this Phase I ESA.

5.8 ADJOINING PROPERTIES

5.8.1 Current Uses of Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about use and activities on adjoining sites:

NORTH	Starbucks, hair salon, and gas station with drive-thru car wash.
EAST	Monterey Street beyond which is an abandoned lot.

SOUTH	A fire station is located to the southwest beyond the railroad tracks.
WEST	Railroad tracks beyond which is a road and residential structures.

5.8.2 Observed Evidence of Past Uses of Adjoining Properties

Observations of adjoining sites providing indications of past use and activities, if any, are described below.

NORTH	None observed.
EAST	None observed.
SOUTH	None observed.
WEST	None observed.

5.8.3 Pits, Ponds or Lagoons on Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about the presence of pits, ponds and lagoons on adjoining sites:

NORTH	None observed.
EAST	None observed.
SOUTH	None observed.
WEST	None observed.

5.9 OBSERVED PHYSICAL SETTING

Topography of the Property and Surrounding Area:	The northern portion of the Property is relatively hilly with a flat portion in the center then there is a steep drop off that leads to the southern half of the Property.

6.0 SUBSURFACE INVESTIGATION

Stantec conducted a subsurface assessment to address the following identified recognized environmental condition (REC):

- **Adjacent Railroad Tracks**. Railroad tracks appear adjacent to the west-southwest of the Property. The presence of railroad tracks adjacent to the Property can be a potential concern due to the possible use of herbicides containing heavy metals for weed abatement along the railroad tracks. Accordingly, Stantec recommended collection of soil samples for chemical analysis to determine if pesticides or heavy metals associated with herbicides were present at levels that may represent a Recognized Environmental Condition (REC) or that are of concern to residential development.

6.1 PRE-DRILLING ACTIVITIES

Prior to the commencement of fieldwork activities, Stantec made the following preparations:

- Stantec visited the Property to mark the proposed boring locations. Subsequent to the marking, underground Service Alert (USA) was notified at least 72-hours prior to the commencement drilling activities; and,

- In accordance with federal Occupational Safety and Health Administration (OSHA) regulations (29 CFR, Section 1910.120), Stantec developed a site-specific Health and Safety Plan (HASP) for the Property. All Stantec personnel and subcontractors associated with the project were required to be familiar with, and comply with, all provisions of the HASP.

6.2 INVESTIGATION

Stantec provided the services of a field scientist on June 23, 2021 to supervise and direct all assessment activities performed during this investigation. The scope of the investigation included the hand augering and sampling of four (4) soil borings (HA-1 through HA-4) to approximately 3-feet below ground surface (bgs) adjacent to the west-southwestern Property boundary near the railroad tracks. All boring locations are depicted on Figure 2.

6.2.1 Soil Boring and Sampling Procedures

A hand auger was used for all borehole advancement. The soils from each boring were containerized and carefully packaged for chemical analysis. The sample containers were labeled with the appropriate identification information (boring number, sample depth, sample collection date, and sample collection time). The samples were logged on a chain-of-custody form and delivered to a state certified laboratory for analysis.

6.3 FIELD EQUIPMENT CLEANING PROCEDURES

To maintain quality control during soil sampling activities, all soil sampling equipment including hand augers were decontaminated using a triple bucket rinse. Prior to drilling at a given location or sampling interval, all equipment coming in direct contact with soil samples was scrubbed with an Alconox scrub solution followed by a clean tap water rinse and then a final distilled water rinse.

6.4 LABORATORY TESTING

Soil samples collected during this investigation were delivered under chain-of-custody to Eurofins TestAmerica (Eurofins), located in West Sacramento, California for analyses. Eurofins is certified to perform hazardous waste testing by the California State Water Resources Control Board (Water Board) Environmental Laboratory Accreditation Program (ELAP).

Soil samples were collected at 0.5 to 1.0, 1.5 to 2.0, and 2.5 to 3.0-foot depth intervals for potential analysis of lead and arsenic. The deeper soil samples (1.5 to 2.0, and 2.5 to 3.0) were placed on hold pending the analysis of the shallow sample. A total of four (4) initial soil samples were submitted for laboratory analysis of the metals arsenic and lead by USEPA test method 6010B. After receipt of the initial soil samples, an additional six (6) soil samples were analyzed from the deeper depths for a total of 10 soil samples for analysis of lead and arsenic.

All laboratory analytical results, and appropriate quality assurance / quality control (QA/QC) documentation, is attached as Appendix G.

6.5 INVESTIGATION RESULTS

6.5.1 Field Observations

No surficial staining or odor was noted during the investigation and groundwater was not encountered. The boring locations are illustrated in Figure 2.

6.5.2 Analytical Results

Laboratory test results from this assessment are presented on the laboratory data sheets attached as Appendix G. A summary of the analytical data from this assessment is provided in Table 1. The laboratory test results from this investigation are discussed below and were comparted to the more conservative value between the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Level (ESL) for residential use (July 2019) and Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) residential screening level (DTSC, 2020).

Lead was detected at concentrations ranging from 1.8 to 18 milligrams per kilogram (mg/kg). These concentrations are well below the SFRWQCB ESL for residential use of 32 mg/kg, and also below the DTSC HERO residential screening level of 80 mg/kg for lead. Therefore, lead is not considered a concern to the site and Stantec recommends no further investigation regarding this issue.

Arsenic was detected in all of the shallow soil samples at concentrations ranging from 5.9 to 28 mg/kg. These concentrations are above the ESL for residential use of 0.067 mg/kg and above the California naturally-occurring regional background levels of 0.6 to 11.0 mg/kg (Table 1). Therefore, the deeper soil samples from the 2.0 and 3.0-feet interval were analyzed for arsenic from borings HA-1, HA-2, and HA-3. Arsenic was detected in all of the deeper soil samples at concentrations ranging from 6.7 to 64 mg/kg. Based on these results, the elevated detections of arsenic exceed regulatory screening criteria and naturally occurring background levels and are considered a REC to the Property. Stantec recommends further lateral and vertical delineation to determine the estimated quantity of arsenic impacted soil that will need to be addressed prior to residential redevelopment.

8.0 EVALUATION

This section provides a summary overview of or Findings, Opinions, and Conclusions.

8.1 FINDINGS AND OPINIONS

Information gathered from interviews, reviews of existing data, and a Property inspection was evaluated to determine if RECs are present in connection with the Property. Based on this information, Stantec made the following findings and developed the following opinions.

- During the site reconnaissance, Stantec observed evidence of a prior homeless encampment and two propane tanks in the southern portion of the Property. Additionally, an open approximately 35-gallon unlabeled steel cylinder was observed with an unknown liquid with potential petroleum sheen.

  The materials are considered a *de minimis* condition. Stantec recommends this liquid be profiled and disposed of in accordance with applicable regulatory requirements.

- Railroad tracks appear adjacent to the west-southwest of the Property. The presence of railroad tracks adjacent to the Property can be a potential concern due to the possible use of herbicides containing heavy metals for weed abatement along the railroad tracks. Accordingly, Stantec recommended collection of soil samples for chemical analysis to determine if pesticides or heavy metals associated with herbicides were present at levels that may represent a Recognized Environmental Condition (REC) or that are of concern to residential development.

  To evaluate the adjacent railroad tracks discussed above, Stantec completed a Phase II ESA at the Property on June 23, 2021. The scope of the investigation included the hand augering and sampling of four (4) soil borings (HA-1 through HA-4) to approximately 3-feet below ground surface (bgs) adjacent to the west-southwestern Property boundary near the railroad tracks.

  Lead was detected in all shallow soil samples collected at concentrations ranging from 1.8 to 18 milligrams per kilogram (mg/kg). These concentrations are well below the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Level (ESL) for residential use of 32 mg/kg, and also below the Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) residential screening level of 80 mg/kg for lead. Therefore, lead is not considered a concern to the site.

  Arsenic was detected in all of the shallow soil samples at concentrations ranging from 5.9 to 28 mg/kg. These concentrations are above the ESL for residential use of 0.067 mg/kg and above the California naturally-occurring regional background levels of 0.6 to 11.0 mg/kg (Table 1). Therefore, the deeper soil samples from the 2.0 and 3.0-feet interval were analyzed for arsenic from borings HA-1, HA-2, and HA-3. Arsenic was detected in all of the deeper soil samples at concentrations ranging from 6.7 to 64 mg/kg.

  Based on these results, the elevated detections of arsenic exceed regulatory screening criteria and naturally occurring background levels and are considered a REC to the Property. Stantec recommends

further lateral and vertical delineation to determine the estimated quantity of arsenic impacted soil that will need to be addressed prior to residential redevelopment.

- An environmental records search was performed and identified sites within their respective ASTM E 1527-13 search radii of the Property that may represent RECs, HRECs, or de minimis conditions.

  Based on one or more of the following reasons: distance from the Property, position of sites with respect to assumed groundwater flow direction, the native soils, and regulatory status, none of the sites identified in the in the environmental records search report are expected to affect soil or groundwater quality at the Property. The environmental records search identified no RECs, HRECs or de minimis conditions at or near the Property.

- Stantec observed a small portion of an asphalt parking lot associated with the adjacent Starbucks. Given that Petromat is a stress-absorbing fabric often associated with asphalt, and it sometimes contains asbestos, Stantec recommends coring the asphalt parking to evaluate if Petromat is present between the asphalt layers and/or native soils to determine whether any special handling or disposal precautions are necessary due to the presence of asbestos.

8.2 DATA GAPS

The federal AAI final rule [40 CFR 312.10(a)] and ASTM E1527-13 identify a “data gap” as the lack or inability to obtain information required by the standards and practices of the rule despite good faith efforts by the EP or the User.

Any data gaps resulting from the Phase I ESA described in this report are listed and discussed below. None of the identified data gaps represent a significant data gap.

Gap	Discussion
Deletions or Exceptions from Scope of Work Referenced in Section 1.4:	None
Weather-Related Restrictions to Site Reconnaissance:	None
Facility Access Restrictions to Site Reconnaissance:	None
Other Site Reconnaissance Restrictions:	None
Data Gaps from Environmental Records Review:	None
Data Gaps from Historical Records Review:	None
Data Gaps from Interviews:	The Property consists of a vacant lot; therefore, no on-site interview was conducted. Given the historical documentation for the Property and lack of development, the lack of an interview is not

Gap	Discussion
	considered a significant impact and is unlikely to impact the findings of the report.
Other Data Gaps:	None

8.3 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 of 18545 and 18565 Monterey Street, City of Morgan Hill, County of Santa Clara, California or the "Property." Any exceptions to, or deletions from, this practice are described in the Data Gaps section of this report. This assessment has revealed evidence of the following recognized environmental conditions (RECs) in connection with the Property:

- **Elevated Arsenic Impacts.** Based on the Phase II subsurface investigation results, the elevated detections of arsenic exceed regulatory screening criteria and naturally occurring background levels and are considered a REC to the Property. Stantec recommends further lateral and vertical delineation to determine the estimated quantity of arsenic impacted soil that will need to be addressed prior to residential redevelopment.

Stantec has identified the following non-ASTM issues related to the Property:

- **Petromat.** Stantec observed a small portion of an asphalt parking lot associated with the adjacent Starbucks. Given that Petromat is a stress-absorbing fabric often associated with asphalt, and it sometimes contains asbestos, Stantec recommends coring the asphalt parking to evaluate if Petromat is present between the asphalt layers and/or native soils to determine whether any special handling or disposal precautions are necessary due to the presence of asbestos.

9.0 NON-SCOPE CONSIDERATIONS

The following ASTM E1527-13 Non-Scope Considerations were performed as part of this Phase I ESA:

9.1 RADON

Radon is a colorless, tasteless radioactive gas with an EPA-specified action level of 4.0 PicoCuries per liter of air (pCi/L) for residential properties. Radon gas has a very short half-life of 3.8 days. The health risk potential of radon is primarily associated with its rate of accumulation within confined areas near or in the ground, such as basements, where vapors can readily transfer to indoor air from the ground through foundation cracks or other pathways. Large, adequately ventilated rooms generally present limited risk for radon exposure. The radon concentrations in buildings and homes depend on many factors, including soil types, temperature, barometric pressure, and building construction (EPA, 1993).

Stantec reviewed regional data published by the EPA on average indoor radon concentrations in the vicinity of the Property (http://www.epa.gov/radon/zonemap.html).

EPA Radon Zones (w/Average Measured Indoor Radon concentrations)		
Zone 1 – High (>4.0 pCi/L)	Zone 2 – Moderate (2 to 4 pCi/L)	Zone 3 – Low (<2 pCi/L)
	X	
Normally-occupied sub grade areas present? (i.e., basement apartments, offices, stores, etc.)		

The Property is located in Zone 2 and is considered to have moderate potential for radon; however, none of the 21 tests performed in Zipcode 95037 had a detection above 4 pCi/L. To determine Property-specific radon levels, a radon survey would have to be conducted. However, because the Property is not residential and there are no occupied subgrade areas, further investigation of indoor radon issues does not appear to be warranted.

9.2 FLOOD ZONES

According to the Physical Setting summary portion of the EDR report, the Property is located within a 0.2% Annual Chance Flood Hazard zone.

10.0 REFERENCES

American Society for Testing and Materials, 2015, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, Designation E 2600-15.

American Society for Testing and Materials, 2013, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, Designation: E 1527-13.

California Department of Toxic Substances Control, 2021, EnviroStor

California State Department of Water Resources Control Board, 2021, GeoTracker

California Division of Mines and Geology (CDMG), 1966, Geologic Map of California, San Jose Sheet, scale 1:250,000.

_____, 2000, Digital Images of Alquist-Priolo Earthquake Fault Zones of California, Central Coastal Region, CD 2000-004.

California Geological Survey (CGS), 2002, California Geomorphic Provinces, Note 36.

_____, 2010, Fault Activity Map of California, adjustable scale, http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html.

California Geologic Energy Management Division (CalGEM), 2021, Well Finder https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-118.94276/37.10257/6

California Regional Water Quality Control Board (CRWQCB), 1995, Water Quality Control Plan, Central Coast Region – Region 3.

Environmental Data Resources, Inc. (EDR), EDR Radius Map with Geocheck, Inquiry Number 6534496.2s, dated June 15, 2021.

_____, Certified Sanborn Map Report, Inquiry Number 6534496.3, dated June 15, 2021.

_____, Historical Topographic Map Report, Inquiry Number 6534496.4, dated June 15, 2021.

_____, Aerial Photo Decade Package, Inquiry Number 6534496.8, dated June 15, 2021.

_____, City Directory Abstract, Inquiry Number 6534496.5 dated June 15, 2021.

United States Environmental Protection Agency (EPA), 2019, EPA Radon Zones https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information

United States Federal Emergency Management Agency (FEMA), 2019, FEMA Floodzone Map Service

United States Geological Survey (USGS), 1980, Morgan Hill Quadrangle, 7.5 Minute Topographic Map, Scale 1 inch = 2,400 feet.

TABLE AND FIGURES

Table 1
Summary of Soil Analytical Results - Lead/Arsenic
18545 - 18565 Monterey Street
Morgan Hill, California
Stantec Project Number: 185805226

Sample ID	Sample Depth (feet)	Sample Date	Arsenic and Lead by 6010B	
			Arsenic	Lead
ESL (Residential)			***0.067***	***32***
DTSC HERO Note 3 (Residential)			***0.41***	***80***
California Background Levels [(2)]			***0.6 - 11***	***NE***
HA-1-1	1.0	6/23/21	**23**	**1.9**
HA-1-2	2.0	6/23/21	**18**	**1.8**
HA-1-3	3.0	6/23/21	**64**	**7.9**
HA-2-1	1.0	6/23/21	**19**	**17**
HA-2-2	2.0	6/23/21	**14**	**14**
HA-2-3	3.0	6/23/21	**6.7**	**7.0**
HA-3-1	1.0	6/23/21	**28**	**13**
HA-3-2	2.0	6/23/21	**26**	**18**
HA-3-3	3.0	6/23/21	**22**	**17**
HA-4-1	1.0	6/23/21	**5.9**	**9.5**
HA-4-2	2.0	6/23/21	NA	NA
HA-4-3	3.0	6/23/21	NA	NA

Notes:

All concentrations reported in milligrams per kilogram (mg/kg).

(1) - More conservative screening level between USEPA Region 9 RSL (May, 2020) and DTSC HERO Note 3 (June, 2020)

(2) - Kearny Foundation Special Report on Background Concentrations of Trace and Major Elements in California Soils (UCR, 1996).

SFRWQCB ESL - San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (July 2019)

DTSC - Department of Toxic Substance Control

HERO HHRA - Human and Ecological Risk Office Human Health Risk Assessment

NA - Not Analyzed

ND - Not Detected Above Practical Quantitation Limit

NE - Not Established

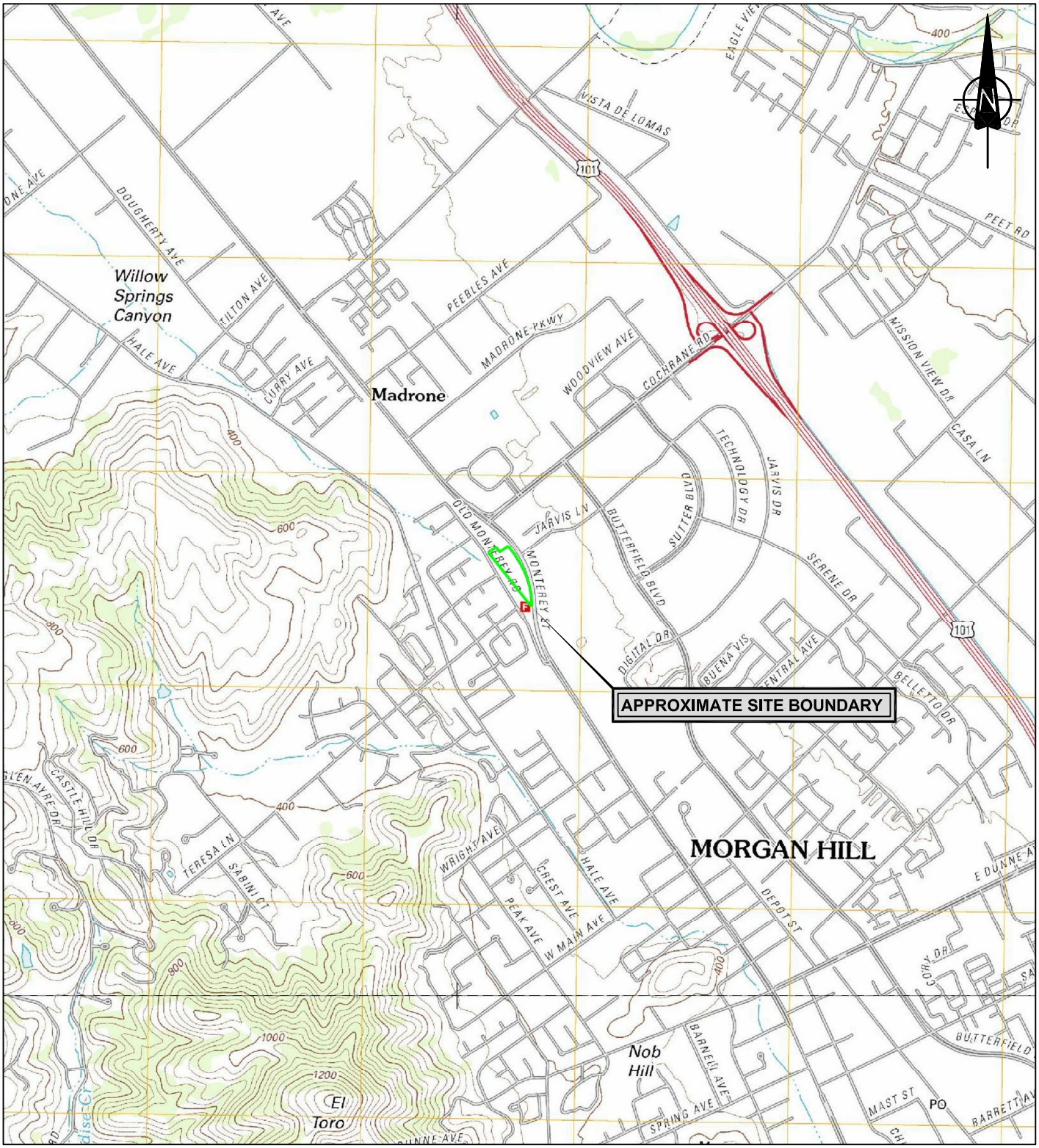
RSL - Regional Screening Level

USEPA - United States Environmental Protection Agency

BOLD Denotes analyte was detected above the practical quantitation limit

< - Denotes analyte was not detected above the practical quantitation limit

Yellow shading indicates value above the residential screening levels



NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC SERVICES INC. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

PROPERTY LOCATION MAP

PHASE I ESA

18545 AND 18565 MONTEREY STREET, MORGAN HILL, CA 95037

Client: CITY VENTURES

Project No.:	185805226
Scale:	AS SHOWN
Date:	21/06/18
Dwn. By:	CD VM SC2021060031
App'd By:	KE

Fig. No.: 1

Stantec

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NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

PROPERTY DETAILS

PHASE I ESA

18545 AND 18565 MONTEREY STREET, MORGAN HILL, CA 95037

Client: CITY VENTURES

Project No.:	185805226
Scale:	AS SHOWN
Date:	21/06/18
Dwn. By:	CD VM SC2021060032
App'd By:	KE

Fig. No.: 2

Stantec

APPENDICES

Appendix A Photographs of the Property and Vicinity

Photographs of the Property and Vicinity
Site Name: **18545 Monterey Road, Morgan Hill, CA**
Photographer: **Jaylen Gregory, Stantec**
Date: **June 15, 2021**



Photo #1 View of the northwest portion of the property.



Photo #2 View of the center portion of the property.



Photo #3 View of the center portion of the property.



Photo #4 Two propane tanks on the southeastern portion of the property.



Photo #5 View of a steel cylinder containing a couple gallons of unidentified liquid content.



Photo #6 View of unidentified liquid content in the steel cylinder. Liquid had a rainbow coloring similar to that of a petroleum substance, but no odor was observed.



Photo #7 View of an abandoned homeless compound area in the southeastern portion of property.



Photo #8 View of northwestern portion of property in parking lot area.



Photo #9 View of drive through car wash on the neighboring property to the northwest.



Photo #10 Railroad tracks appear along the western property boundary and separates the property from the residential neighborhood.

Appendix B STANTEC RESUMES

Alicia Jansen CAC, LRCIA

Environmental Scientist
18 years of experience

Alicia is an Associate Scientist with over fifteen years of experience in Phase I and II Environmental Assessments, with strong emphasis in water quality and environmental research. Alicia has managed the preparation of environmental documents, training programs, and environmental compliance during large scale environmental monitoring projects. Alicia's environmental consulting experience includes performing asbestos and lead-based paint surveys, oversight of contractors during asbestos abatement, hazardous materials surveys, and Phase I Environmental Site Assessments (ESAs) in accordance with the practices identified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-13 and the Standard Practice for Environmental Site Assessments for Forestland or Rural Property, ASTM Designation E 2247-16.

EDUCATION

BA, Environmental Studies, San Jose State University, San Jose, California, 2004

CERTIFICATIONS & TRAINING

Residential Measurement Provider, 108212, National Radon Proficiency Program, Anaheim, California, 2015

REGISTRATIONS

Certified Asbestos Consultant #CAC #15-5379, State of California Division of Occupational Safety and Health

Lead Inspector/Risk Assessor #LRC-00005363, California Department of Public Health

MEMBERSHIPS

Member, Groundwater Resources Association of California

PROJECT EXPERIENCE

HEALTH, SAFETY & INDUSTRIAL HYGIENE

Confidential Health Care Company, Asbestos, Lead-Based Paint, and Hazardous Materials Survey | Northern California | Staff

Alicia assisted with site inspections for asbestos, lead-based paint, and hazardous materials at multiple occupied hospitals and office spaces. The scope of work involved sample collection for asbestos and lead-based paint in addition to the quantification of universal wastes (PCBs, mercury containing equipment, refrigerants, etc.) that would require special handling and disposal. She assisted with the preparation of reports summarizing findings.

State of California General Services, Asbestos, Lead-Based Paint, and Hazardous Materials Survey | Northern California | 2009 | Technical Support

Alicia assisted with site inspections for asbestos, lead-based paint, and hazardous materials at multiple communication towers in remote areas. The scope of work involved sample collection for asbestos and lead-based paint in addition to the quantification of universal wastes (PCBs, mercury containing equipment, refrigerants, etc.) that would require special handling and disposal. She assisted with the preparation of reports summarizing findings. Role: Technical Support | Cost: Unknown | Dates involved: 10/2009-10/2009

Indoor Air Quality Assessments* | San Jose, California | 2002-2005 | Staff

Alicia performed site inspections, interviews, and collected air samples to be analyzed for various air pollutants and molds including formaldehyde, penicillium, aspergillus, cladosporium, and stachybotry. She prepared reports summarizing findings and made recommendations.

Veteran's Administration of Puget Sound, Asbestos and Lead-Based Paint Survey | Seattle, Washington | 2009 | Project Scientist

Alicia served as the Project Scientist responsible for hazardous building material assessments, specifically asbestos and lead-based paint. These services were required as part of the pre-design tasks for this project. Over 300 samples were collected over the span of four days culminating in a final hazardous building materials report to be incorporated into the facility design as well as demolition activities once the construction phase of the project commences.

Interim Remedial Action, Indoor Air Sampling, and Sub-Slab Soil Gas Sampling | Sunnyvale, California | 2004–2014 | Task Manager and Field Support

Alicia conducted an indoor air sampling survey using air sampling pumps, dosimeter badges, and flame ionization detector (FID) during a sump excavation. She performs semi-annual sub-slab soil vapor sampling and indoor air quality surveys using summa canisters. She assists with the preparation and submittal of reports summarizing the findings and provides recommendations to the local regulatory agency. Role: Indoor Air Sampling Survey | Cost: Unknown | Dates involved: 09/2004-09/2014

** denotes projects completed with other firms*

Lead Dust Assessment and Abatement Oversight | Fremont, California | 2009 | Technical Support

Alicia assisted with the evaluation of lead dust in an industrial facility. A total of 307 dust wipe samples were collected in order to evaluate the potential presence of lead dust throughout the two-story, 500,000 square foot manufacturing building. Role: Technical Support | Cost: Unknown | Dates involved: 01/2009-03/2009

Former Tesoro Coke Facility, Asbestos, Lead-Based Paint Survey | Pittsburg, California | Technical Support

Alicia assisted with an asbestos and lead paint survey of 20 structures at the facility ultimately scheduled for demolition. More than 200 samples were collected over the span of two days. She prepared a report for demolition while also providing the information needed for worker safety during demolition activities at the facility. Role: Technical Support | Cost: Unknown | Dates involved: 04/2009-04/2009

State of California General Services, Asbestos and Lead-Based Paint Survey | Southern California | 2014-2019 | Certified Asbestos Consultant

Alicia conducted with site inspections for asbestos and lead-based paint at multiple bridges, maintenance stations, and roadways throughout Southern California. The scope of work involved sample collection for asbestos and lead-based paint that would require special handling and disposal. She assisted with the review and approval of reports summarizing findings. Role: Certified Asbestos Consultant | Cost: Unknown | Dates involved: 9/2014-10/2019

PERMITTING, COMPLIANCE, AUDITING

Tesoro Refinery, Initial Study* | Benicia, California | 2005 | Staff

Alicia assisted with the background research and preparation of applicant-prepared initial study for the upgrade of a refinery.

Transmission Line Upgrade* | San Mateo to San Francisco, California | 2005 | Environmental Research and Compliance Staff

Alicia supported the environmental compliance program for the construction of a 27-mile 230 kV underground and overhead transmission line. She assisted with the preparation and submittal of variance requests, extra work space requests, and daily and weekly reports for submittal to the California Public Utilities Commission. She also conducted research and assisted with training and report preparation.

REMEDIAL INVESTIGATIONS & ASSESSMENTS

California Department of Transportation Portfolio | Multiple Sites, Northern California and Southern California, California | 2008-2019 | Task Lead Manager

Alicia prepared quarterly groundwater monitoring reports, subsurface investigation reports, sensitive receptor surveys, and preferential pathway studies for various California Department of Transportation locations throughout Northern California. She assisted with the utility locating, work plan preparation, field coordination, archived data onto the State Water Resource Control Board's (RWQCB) Geotracker electronic filing system. Alicia currently conducts site inspections for asbestos, lead-based paint, and hazardous materials for bridges, salt barns, and maintenance buildings associated with California Department of Transportation locations throughout Southern California. The scope of work involves sample collection for asbestos and lead-based paint that would require special handling and disposal. She assists with the preparation of reports summarizing findings. Role: Task Lead Manager | Cost: Unknown | Dates involved: 06/2008-02/2019

Soil Gas Sampling and Human Health Risk Assessment | San Jose, California | 2014 | Project Lead

Alicia performed a soil vapor survey in conformance with the DTSC Advisory Active Soil Gas Investigations, using soil vapor sampling devices and a mobile laboratory for onsite chemical analysis. She also assisted with the report preparation summarizing the findings and providing recommendations for further assessment.

Confidential Client, Phase I Environmental Site Assessments | Multiple Sites, California, Arizona, New Mexico, Texas, Virginia | Task Manager

Alicia performs Phase I Environmental Site Assessments for multiple confidential clients in accordance with the practices identified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-13 and Standard Practice for Environmental Site Assessments for Forestland or Rural Property, ASTM Designation E 2247-16 to achieve compliance with requirements of the "All Appropriate Inquiries" rule required to obtain protection from liability under the federal Comprehensive Environmental Response, Cleanup and Liability Act (CERCLA). Previous sites include large industrial warehouses, multi-tenant commercial buildings, large lots of vacant land, and residential properties. She reviews topographic maps, Sanborn Fire Insurance Maps, and files at local regulatory agencies. She interviews present and former property owners and performed site and adjacent property reconnaissance. She prepares reports summarizing the findings and provides recommendations for further assessment if applicable. Cost: 3-8000 per report

Goodyear Portfolio | Northern California and Hawaii | 2005–present | Project Lead

Alicia performed Phase I Environmental Site Assessments (ESA) and Phase II Site Assessments for various Goodyear Tire & Rubber Company locations throughout California and Hawaii. She assisted with the installation of monitoring wells and exploratory borings; underground storage tank removals; site restoration; product removal with passive recovery system; archived data onto the State Water Resource Control Board's Geotracker electronic filing system; and assisted with the preparation of quarterly groundwater monitoring reports, sensitive receptor surveys, site conceptual models, and subsurface investigation reports. Approximately 250 Sites • Cost: $8,000 per site.

Jaylen Gregory

Staff Scientist
3 years of experience

Jaylen is a Bachelors of Science graduate interested in the management and remediation of contaminated sites. So far his experience includes, reporting for soil and groundwater investigations, reporting for soil and groundwater remediation projects, and field sampling for groundwater, soil, and indoor air. Jaylen has contributed to working on projects with clients in the private, municipal, oil, and gas sectors.

EDUCATION

Bachelor of Science , SUNY Albany , Albany, New York, 2018

CERTIFICATIONS & TRAINING

40-Hour Hazardous Waste Operations and Emergency Response Certification, (29 CFR 1910.120), OSHA, San Jose 2018, San Jose, California, 2018

8-hour Site Supervisor's Certification, OSHA, San Jose, California, 2019

30 HR Construction Outreach Course, OSHA, San Jose, California, 2019

PROJECT EXPERIENCE

AIR QUALITY

SPANG | Sunnyvale, California | 2018-2018 | Indoor Air Sampler

Conducted indoor air and sub-slab soil vapor sampling to define and minimize the extent of VOC vapor intrusion in multiple office buildings in the Bay Area. Using summa canisters and radiello diffusive instruments, air samples were analyzed for toxic analytes such as trichloroethylene and vinyl chloride. Role: Indoor Air Sampler | Dates involved: 09/2018/-11/2018

GROUNDWATER MONITORING AND REPORTING

Groundwater Remediation Project | Valero | Benicia , California | 2018-Present | O&M Technician, Field Sampler, Report Writer

Confined the extent of groundwater contamination at an oil refinery through the usage of an in-situ bioremediation air sparging system. Sampled groundwater and then reviewed it's laboratory analytical data to determine if concentration exceedances surpassed California water quality protection standards. Role: O&M Technician, Field Sampler, Report Writer | Dates involved: 09/2018-present

GROUNDWATER / SURFACE WATER INTERACTION

Oregon Expressway | Stantec | Palo Alto, California | 2018-Present | O&M technician

Served as an O&M technician at a pump station that collects and discharges groundwater and local storm sewer runoff from roadway underdrains in order to prevent flooding of the OEU underpass. Role: O&M Technician | Dates involved: 11/2018-present

ENVIRONMENT, HEALTH & SAFETY

Environmental Health and Safety Project | Tesla | Fremont, California | 2018-2019 | Environmental Health and Safety Personnel

Helped lead an environmental health and safety project at Tesla, creating lockout tagout placards for their personnel working with electronic, pneumatic, and robotic shutoff points. Role: Environmental Health and Safety Technician | Dates involved: 08/2018-02/2019

Deborah J Hernandez

Geologic Staff

Debbie is a staff geologist hired in September of 2018 at the San Bernardino Office. Through her education at Cal Poly Pomona, Debbie has extensive research and writing experience while conducting thesis work. Field experience ranges from field mapping, rock and soil classification to vast experience utilizing geophysical equipment. Since starting at Stantec, Debbie has applied her knowledge towards Phase I and II Environmental Assessment field work and report preparation. Debbie has also overseen soil vapor extraction projects Debbie completed a GIS certification program through the California University Fullerton and is experienced in ArcGIS 10, Adobe Suite, and the Microsoft Office Suite.

Debbie's environmental consulting experience includes performing Phase I Environmental Site Assessments in accordance with the practices identified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-13, and the collection, and interpretation of Phase II Environmental Assessment data.

EDUCATION

Bachelor of Science, Geological Sciences, California Polytechnica University, Pomona, Pomona, CA, 2015

CERTIFICATIONS & TRAINING

Geographic Information Systems, California State University, Fullerton, Fullerton, California, 2018

Lead Sampling Technician, National Association of Training and Environmental Consulting, Anaheim, California, 2019

8-Hour Supervisor Trainer Coarse Certification Hazwoper, OSHA, Simi Valley, California, 2018

Adult and Pediatric First Aid/CPR/AED, American Red Cross, San Bernardino, Ca, 2018

Asbestos Building Inspector Initial Course, National Association of Training and Environmental Consulting, Anaheim, California, 2018

PROJECT EXPERIENCE

Soil Vapor Intrusion Assessment/Mitigation Studies (including Methane)

Soil Vapor Intrusion Assessment, Various Locations, California

Debbie performed field oversight during the installation of multiple soil vapor monitoring wells. She assisted with health and safety oversight, classified the soils during drilling activities and assisted with the well installation and subsequent soil vapor sampling.

Groundwater Supply / Wells

Humboldt Energy, Water Supply Assessment

Debbie coauthored a water supply assessment report for a wind energy project located in Humboldt County, California. Through research of groundwater basins and geographic information system analysis, she finalized a report used to supplement the design and construction of over 60 wind turbines and ancillary facilities.

** denotes projects completed with other firms*

Deborah J Hernandez

Geologic Staff

Phase I & II Environmental Site Assessments
Environmental Site Assessment, San Bernardino, Ca
Debbie performed an onsite reconnaissance survey, historical records investigation, and formulated the report deliverable. The report provided a thorough review of the property history and defined present environmental concerns for the client.

Aerial Mapping
Mars Data Analyst, JPL*, Pasadena, Ca (Geology Intern)
Duties included mapping geologic safety hazards using HiRISE, CTX and THEMIS images on ArcGIS; analyzed rock classification and distributions to downselect eight landing sites to four. Characterized over 300 craters and their respective ejecta blankets for potential landing sites. Presented findings at the 2014 Geological Society of America Conference, Abstract #249384

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Kyle has more than 28 years of professional experience—17 of those years with Stantec—providing geotechnical and environmental consulting. During the course of his experience, he has been involved with a wide variety of geological and engineering projects. He has been in direct charge of quality control/quality assurance (QA/QC) work for Stantec and previous firms for geological, engineering geological, and environmental services primarily in California. Additionally, Kyle has been a primary contact for Stantec with many different clients (including multi-party actions) and regulatory bodies involving contracting, workplan approvals, site assessments and closures, permitting, remedial action, and litigation support. With regard to litigation services, Kyle has extensive experience providing expert witness testimony, second-party review, and litigation support and analysis.

Kyle's extensive experience includes assessment and remediation of property-specific and regional issues involving soil and groundwater contaminated with petroleum hydrocarbons, chlorinated solvents, heavy metals, pesticides, and PCBs.

He currently serves as the managing principal geologist in Stantec's Redlands, California office.

EDUCATION

Engineering Geology/Hydrogeology, California State University, Los Angeles, California, 1984

AS, General Science, Crafton Hills College, Yucaipa, California, 1975

BS, Geological Sciences, California State University, Long Beach, California, 1982

REGISTRATIONS

Certified Engineering Geologist #1271, State of California Issued 1985, Expires 2011

Professional Geologist #4066, State of California Issued 1985, Expires 2011

PROJECT EXPERIENCE

Bioremediation

Excavation and Treatment of Petroleum-Contaminated Soil

Kyle designed the excavation and treatment of 45,000 cubic yards of petroleum-contaminated soil. Soil treatment included utilizing vapor extraction, combined with bioremediation.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Chemicals & Polymers

Two Former Chemical Plants, Environmental Site Assessments and Remediation, Vernon, California

Mr. Emerson was part of the team for conducting Phase I and Phase II Environmental Site Assessments (ESA) and developing remedial action plans for two former chemical plant sites with 80-year industrial histories. Phase I ESAs used historical files, maps, aerial photographs, available documents, and data from public agencies and historical directories for identifying recognized environmental concerns. Extensive Phase II ESA survey activities aided in identifying below-grade structures such as vaults/USTs, as well as assessing the extent of influence and nature of the contamination. These investigations confirmed the presence of heavy metals, petroleum hydrocarbons, volatile organic compounds, polychlorinated biphenyls, radioactive materials, semi-volatile organic compounds, and polycyclic aromatic compounds in the soils for these sites. Specific areas of concern included former settling ponds, a bone yard, maintenance areas, transformer and substations, wastewater treatment facilities, and above-ground storage tank farms. A conceptual mode was developed for use in a health risk assessment and developed risk-based corrective actions to address potential health and environmental concerns. He assisted with the development and implementation of a remedial action plan, combined administrative controls, engineering controls, and active remediation; this resulted in the cost-effective return of one site to active use, and is reducing health risks to occupants and the public at the second site.

CONFIDENTIAL: Aerospace Adhesives and Coatings Plant, Glendale, California

Mr. Emerson was part of the team that conducted feasibility studies to evaluate remedial alternatives for remediation of chlorinated VOCs, 1,4 dioxane, and hexavalent chromium (CrVI) in soil, soil vapor, and groundwater. Feasibility studies included groundwater pump testing, benchscale column testing to evaluate in situ alternatives for reducing CrVI to the less mobile CrIII valence state, soil vapor extraction, capping, and excavation. Field pilot studies were performed to evaluate the efficiency of various CrVI reductants including the use of ferrous sulfate, calcium polysulfide, emulsified oil, and fructose. Extensive multi-depth soil vapor testing was conducted to evaluate the distribution of VOCs in the subsurface and to support vapor intrusion risk assessment. Feasibility studies were completed in 2008. Remedial actions are expected to be completed in 2011.

Condition Assessments

Assessment and Mitigation of Manufacturing Facility

Kyle managed the assessment and mitigation of an ammunition manufacturing facility covering 1,100 acres in a complex geologic environment. The contaminates involved red and white phosphorous, TNT, chlorinated solvents, solid wastes, and live ordinance.

Soil Contamination Assessment Supervision and Management

Kyle managed and supervised soil contamination assessment and in-situ remediation of heavy metals involving chromium, cadmium, nickel and zinc by chemical fixation to depths in excess of 40 feet below ground surface beneath existing structures within several manufacturing facilities.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Litigation Support and Expert Testimony
Kyle provided litigation support and expert testimony on more than 20 separate projects involving service stations, chlorinated solvent cases, heavy metal, and semi-volatile releases.

Corporate / Office
Commercial Developer - Environmental Remediation of Former Dry Cleaners, El Centro, California
Mr. Emerson was responsible for assessments and remediation at this former dry cleaners which released the dry cleaning chemical tetrachloroethene (PCE) to the ground and underlying groundwater. The work included initial site assessment, agency interaction and negotiations with the California Regional Water Quality Control Board (CRWQCB), and Colorado Basin Region human health risk assessment (HHRA), design and implementation of remedial investigations, feasibility studies, remedial action plans, and implementation of remediation in mitigating chlorinated solvent contamination in vadose and saturated zones at concentrations indicative of DNAPL. The results of the completed remediation, as well as continued confirmation sampling and monitoring, allowed the CRWQCB to issue site closure in 2008. The site has since been redeveloped into a new commercial development.

Environmental Assessments
Siting Studies
Kyle performed initial siting studies for potential Class I, II, and III landfills. The project included detailed geologic mapping, hydrogeological studies, and permeability studies of caps and liners.

Environmental Site Remediation
Assessment and Remedial Design, California (Project Supervisor)
Kyle supervised the assessment and remedial design of a system to eliminate salt brine contamination in shallow perched water horizons in the Yucaipa, San Bernardino, and Riverside areas of southern California.

Design and Installation of Recovery Systems*
Kyle designed and installed numerous free-product recovery systems that successfully recovered product. One of the sites contained product up to 11-feet thick covering more than three city blocks. The dissolved phase had affected a multi-aquifer system and a public drinking water system.

Geophysical Characterizations*
Kyle performed and supervised numerous geophysical characterizations to determine the extent of old landfills. He provided classification studies, landfill gas monitoring, removal verification during grading, methane collection and mitigation plans, permitting, and closure plans.

Domestic Landfill Development*
Kyle designed and supervised the dynamic consolidation of a domestic landfill for development. He used this process to minimize expected settlement to overlying structures. Kyle designed commercial developments on closed landfills that involved complex methane collection and monitoring systems and building settlement controls.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Clay Borrow Site Studies

Kyle performed more than 10 separate clay borrow site studies for determining sources of material to cap landfills; ranged from a 20-acre dry lakebed to a 450-acre parcel in complex folded marine sediments.

Assessment, Clean Up, and Regulatory Support Management, Santa, Monica (Project Manager)

Kyle managed the assessment, clean up, and complex regulatory support of a PRP site in an MTBE case (Charnock subbasin). His work involved more than 20 environmental professionals working full time for two years to complete the assessment and clean up mandated by the regulatory agencies.

Hazardous Waste

San Gabriel Valley Superfund Site, Remediation & Closure of Multiple Source Areas, Industry, California

Mr. Emerson performed feasibility studies to evaluate appropriate and relevant remedial alternatives to mitigate constituents of concern in five AOCs contaminated with chlorinated hydrocarbons, heavy metals, petroleum fuel, and cutting oils. Ultimately, a combination of remedial alternatives was implemented that included large-diameter auger excavation to 45 feet to minimize impacts on facility operations, vapor extraction, vapor intrusion risk assessment, deed restriction, and monitored natural attenuation. At the completion of remedial actions, confirmation soil, soil vapor, and groundwater sampling were conducted and followed with risk assessment to demonstrate that remedial objectives had been achieved. No further action was recently granted by the US EPA and Los Angeles Regional Water Quality Control Board.

Mixed-Use

Port of San Diego Rohr Facility, Chula Vista, California

Mr. Emerson assisted in a detailed subsurface assessment of the Rohr facility. The intent of the assessment was to evaluate the 40-acre former aircraft part manufacturing facility for acquisition by the Port of San Diego for redevelopment into a business park and entertainment complex. The assessment identified the presence of soil, soil vapor, and groundwater impacts by petroleum hydrocarbons, VOCs, heavy metals, PCBs, and semi-volatile organic compounds. He utilized many sampling techniques to assess the limits and concentrations of contaminants in the subsurface. Ultimately, the team was able to develop a cost estimate for potential remedial action cost associated to corrective action to allow redevelopment.

Master Planned Commercial/Residential Redevelopment Project, Whittier, California (Project Manager)

Kyle oversaw the assessment of 26 contiguous properties that are part of a 21-acre master planned commercial/residential redevelopment project. The properties included industrial facilities, platting lines, fuel USTs, and metal processing plants, among others. The estimated cleanup costs are approximately $2 million.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Multi-Unit / Family Residential

Residential Development Assessment, Ventura, California (Project Director)

Kyle directed an assessment of a 40-acre former agricultural property proposed for residential development. Pesticides were identified above hazardous waste levels and preliminary remediation goals established by the U.S. Environmental Protection Agency. Through corrective grading methods and onsite placement of the pesticide impacted soils, all material were re-used on site without offsite disposal. The over all cost savings for the client was more than $1 million. Total cost was less than $250,000 for all necessary activities.

Oil & Gas

Oil Field Site Assessments*

Kyle performed site assessments at oil field leases involving refineries, bulk storage areas, piping systems and wellhead, and drilling mud pit contamination.

Environmental Protection Agency Superfund Action, Culver City, California (Project Manager)

Kyle served as the project manager representing a major oil company in the assessment, remedial action, and litigation support in a multi-party contamination case affecting a City water supply. The assessment involved more than 250 continuous core borings up to 100 feet, as well as extensive remedial actions. The total cost for all related activities was $22 million. The case is settled and the closure of the site is pending.

Project Management

Liability and Property Management Consulting Services

Kyle is providing liability and property management consulting services to more than 10 medium to large property development firms in the US. His work involves property transaction assessments, contract review, acquisition guideline development, liability management evaluation, insurance acquisition, and strategic planning.

Residential Development

Environmental Development Management and Review (Project Manager)

Kyle manages and reviews environmental development issues for a large residential developer specializing in development of contaminated industrial properties by providing innovative solutions in developing contaminated properties for residential use through risk assessment, engineering, and administrative and property development controls.

Site Management and Remediation

Design and Implementation of Biodegradation Programs*, California

Kyle designed and implemented one of the first in-situ biodegradation programs in California; it involved 50,000 cubic yards of diesel-contaminated soils, and groundwater to depths of 70 feet below ground surface.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Soil and Groundwater Remediation Systems

Soil and Groundwater Contamination Assessments and Mitigation*, California (Project Manager)

Kyle managed numerous chlorinated solvent soil and groundwater contamination assessments and mitigation programs in southern California. The projects involved releases that impacted soil and groundwater to depth of groundwater more than 700 feet in multi-aquifer systems. One case involved with plume dimensions more than 1 mile from the source affecting residential properties.

Soil and Groundwater Assessment and Remediation Programs*

Implemented hundreds of soil and groundwater assessment and remediation programs at various service station facilities in Southern and Northern California, and Nevada. Work involved assessment, remedial design, installation, maintenance and monitoring. Closure has been received on a majority of these sites.

Assessment and Remediation Management*

Kyle managed the assessment and remediation of soil and groundwater manufacturing at dry cleaning facilities contaminated with chlorinated solvents.

Warehouse / Light Industrial

Glendale Redevelopment Project, Glendale, California (Project Manager)

Kyle managed the assessment and remedial actions during the redevelopment of and industrial property. The project involved the demolition of a historic manufacturing facility and a commercial dry cleaner. Each of these facilities were associated with releases of solvents and petroleum hydrocarbons. Remedial actions involved excavation by pattern drilling and off site disposal along with removal of former USTs. The total cost of remediation and assessment was $450,000.00.

Compton Redevelopment Project, Compton, California (Project Manager)

Kyle is serving as project manager for the assessment and remedial actions for a large redevelopment project. The project involves the redevelopment of a historic manufacturing facility and a former dry cleaner. Each of these facilities were associated with releases of solvents and petroleum hydrocarbons. The industrial facility was also associated with significant volumes of buried waste that required removal and disposal. These wastes also included the chemical referenced above, as well as PCBs and heavy metals. Remediation has included excavation, vapor extraction, and chemical fixation. The total cost of this project has been $2.8 million to date.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

PUBLICATIONS

In-Situ Bioremediation of an Underground Diesel Fuel Spill: A Case Study. Environmental Management, 1989.

Appendix C USER PROVIDED RECORDS

Stantec

PHASE I ESA USER'S QUESTIONNAIRE

In order to qualify for protection from land owner liability under CERCLA as an *innocent landowner, bona fide prospective purchaser,* or *contiguous property owner*, ASTM standard practice E1527-13 and the federal AAI rule (40 CFR 312) require that the User of the Phase I ESA report provide certain information (if available) to the Environmental Professional completing the assessment. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Information that is not or cannot be provided to the Environmental Professional may be identified as a "data gap" in the Phase I ESA report.

Please answer the following questions as completely as possible. Attach additional pages as needed. Return the completed questionnaire to Stantec along with the executed Authorization For services form.

1. Property Information

Property Name: Morgan Hill G

Property Address(es): 18545-18565 Monterey Road

City: Morgan Hill State CA Zip 95037

Property Owner Name: Oanh Oanh Nguyen Trinh and Nhat Huu Hoang and Ngoc Tram Thi Nguyen

Property Owner Phone #: n/a

2. Contact For Site Access

Name: David Shelly

Company/Organization/Title: City Ventures - Acquisitions Manager

Phone # (949) 274-5251 E-Mail Address: dshelly@cityventures.com

3. Environmental Cleanup Liens. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

_____ Yes ____x____ No

If yes, describe or attach details of the lien _____

4. Activity and Land Use Limitations. Are you aware of any activity and use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded as applicable to the property as a result of environmental contamination, investigation, cleanup, or related matters?

_____ Yes _____x_____ No

If yes, describe or attach details of the limitations _____

5. Specialized Knowledge or Experience. As the User of this ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property, such that you would have specialized knowledge about chemicals and processes used by this type of business?

_____ Yes ___x_____ No

If yes, describe or attach details of your specialized knowledge or experience _____

_____

6. Relationship of Purchase Price to Fair Market Value of Property. Does the purchase price being paid for the property reasonably reflect the fair market value?

__x__Yes _____No

_____Not applicable. User is not involved in a purchase of the property.

If you conclude that there is a difference, do you have any reason to believe that the reduced purchase price may be related to contamination known or believed to be present at the property?

_____Yes, I have reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property.

_____No, I have no reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property.

7. Commonly Known or Reasonably Ascertainable Information. Are you aware of commonly known or reasonably ascertainable information about the property that would help the Environmental Professional to identify conditions indicative of releases or threatened releases of hazardous substances or petroleum products? For example:

Do you know the past uses of the property?

_____Yes (describe) _____

_____

_____

__x_____No

Do you know of chemicals, hazardous substances or petroleum products that are present or once were present at the property?

_____Yes (describe) _____

_____

_____

__x_____No

Do you know of spills or other releases of chemicals, hazardous substances or petroleum products that have taken place at the property?

_____Yes (describe) _____

_____

_____

__x__No

Do you know of any environmental cleanups that have taken place at the property?

_____Yes (describe) _____

_____

_____

__x__No

8. The Degree of Obviousness of Contamination. E1527-13 and the federal AAI rule (40 CFR 312.31) require that the Phase I ESA consider the degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation. Based on your knowledge and experience related to the property, are there any *obvious* indictors that point to the presence or likely presence of contamination at the property?

_____Yes (describe) _____

_____

_____

__x__No

9. Availability of Previous Environmental Reports. Are you aware of previous environmental site assessment reports, other environmental reports, documents, correspondence, etc. concerning the property and its environmental condition?

_____Yes (describe) _____

_____

_____

__x__No

Signature: Kian Malek

Name (printed): Kian Malek

Title: Development Associate

Date: 6/11/2021

First American Title

First American Title Company
4750 Willow Road, Suite 275
Pleasanton, CA 94588

File No.: 0131-624353ala (st)

This report has been amended/updated to reflect the following matters:

[ ] No changes made to the report other than the Effective Date

[ ] Property address has been revised

[ ] Vesting has been revised

[ ] Legal Description has been revised

[X] Taxes have been updated

[X] Original item number(s) 1 and 2 has been removed

[ ] New item number(s) have been added

[X] Original item number(s) 3 have been revised

[X] Other: Informational Notes: New item nos. 1 and 2 have been added

Updated

First American Title

First American Title Company

4750 Willow Road, Suite 275
Pleasanton, CA 94588
California Department of Insurance License No. 151

Escrow Officer:	Diane Burton
Phone:	(925)738-4050
Fax No.:	(866)648-7806
E-Mail:	dburton@firstam.com
Title Officer:	Sheryl Taylor
Phone:	(559)470-8819
Fax No.:	
E-Mail:	ShTaylor@firstam.com
E-Mail Loan Documents to:	Lenders please contact the Escrow Officer for email address for sending loan documents.
Buyer:	Quail Capital Investments, LLC
Owner:	Oanh Oanh Nguyen Trinh and Nhat Huu Hoang and Ngoc Tram Thi Nguyen
Property:	18545 & 18565 Monterey Road, APNs: 764-10-013 & 764-10-015 Morgan Hill, CA 95037

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit A attached. *The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties*. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of June 03, 2021 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

Oanh Oanh Nguyen Trinh, a single woman, as to an undivided 45% interest and Nhat Huu Hoang, a married man, as to an undivided 45% interest and Ngoc Tram Thi Nguyen, a single woman, as to an undivided 10% interest

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A fee as to Parcel(s) 1 and 3, an easement as to Parcel(s) 2, 4, 5, and 6.

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

A. General and special taxes and assessments for the fiscal year 2021-2022, a lien not yet due or payable.

1. Intentionally Deleted

2. Intentionally Deleted

3. Assessment liens collected with the general and special taxes disclosed by the reflection of the following on the tax roll:

   Community Facilities District LIBRARY JPA CFD 2013-1.

4. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

5. A waiver of any claims for damages by reason of the location, construction, landscaping or maintenance of a contiguous freeway, highway, roadway or transit facility as contained in the document recorded August 31, 1938 as Instrument No. 140249 in Book 893, Page 169 of Official Records.

6. An easement for construction and maintenance of a drain ditch and incidental purposes, recorded August 31, 1938 as Instrument No. 140249 in Book 893, Page 169 of Official Records.
In Favor of: Department of Public Works, State of California
Affects: As described therein

A Director's Easement Deed recorded from the State of California, Department of Public Works to the Santa Clara County Flood Control and Water Conservation District on June 30, 1959 in Book 4465, Page 362, Santa Clara County Records.

7. The Community Development Plan of the Ojo de Agua Project Area in the City of Morgan Hill, recorded on June 23, 1981 in Book G169, Page 270, Official Records of Santa Clara County, as Instrument No. 7092982.

An Ordinance of the City Council of the City of Morgan Hill (Ordinance No. 1057, New Series) Adopting the Ojo De Agua Community Development Plan and Making Certain Findings Pursuant to the Community Redevelopment Law of the State of California, recorded June 23, 1981 in Book G169, Page 327, Official Records, as Instrument No. 7092983.

Statement of Institution of Redevelopment Proceedings, pursuant to the California Community Redevelopment Law, Health & Safety Code Sections 33000, et seq., recorded June 23, 1981 in Book G169, Page 340, Official Records, as Instrument No. 7092984.

An Ordinance of the City of Morgan Hill (Ordinance No. 552, New Series) Approving and Adopting the Amended and Restated Ojo De Agua Community Development Project Are Pursuant to the Community Redevelopment Law of the State of California (Health & Safety Code Sections 33000, et seq.), recorded November 7, 1991 in Book L923, Page 1101, Official Records, as Instrument No. 11126298.

Statement of Institution of Amended Redevelopment Plan, pursuant to the California Redevelopment Law, Health & Safety Code Sections 33000, et seq., recorded November 7, 1991 in Book I 923, page 1109, Official Records, as Instrument No. 11126299.

Notice of Non-effectiveness of Amended and Restated Redevelopment Plan recorded December 15, 1992 in Book M541, Page 803, Official Records, as Instrument No. 11692063.

An Ordinance of the City Council of the City of Morgan Hill (Ordinance No. 1204, New Series) Adopting an Amendment to the Ojo De Agua Community Development Plan Pursuant to Health and Safety Code Section 33333.6 and Amending a Related Ordinance in Connection therewith, recorded January 9, 1995 in Book N724, Page 1384, Official Records, as Instrument No. 12769934.

The Amended and Restated Redevelopment Plan for the Ojo de Agua Redevelopment Project, Amendment No. 4 recorded December 13, 2006 as Instrument No. 19225080, Official Records.

8. The terms and provisions contained in the document entitled "Subdivision Improvement Agreement" dated December 16, 2002 executed by and between City of Morgan Hill and South Valley Developers, Inc. recorded March 10, 2003 as Instrument No. 16874126 of Official Records.

9. An easement shown or dedicated on the map filed or recorded March 10, 2003 as Book 758, Page 49 of Maps
For: Reciprocal ingress and egress, public service easement, storm drainage easement and incidental purposes.

The effect of a document entitled "Quitclaim Deed", recorded June 2, 2016 as Instrument No. 23322533 of Official Records.

10. Abutter's rights of ingress and egress to or from Monterey Road have been dedicated or relinquished on the filed Map.

    Affects: Parcel 3

11. Covenants, conditions, restrictions and easements in the document recorded April 2, 2003 as Instrument No. 16928125 of Official Records, which provide that a violation thereof shall not defeat or render invalid the lien of any first mortgage or deed of trust made in good faith and for value, but deleting any covenant, condition, or restriction, if any, indicating a preference, limitation, or discrimination based on race, color, religion, sex, gender, gender identity, gender expression, sexual orientation, familial status, marital status, disability, handicap, veteran or military status, genetic information, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, to the extent that such covenants, conditions or restrictions violate applicable state or federal laws. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status.

12. Covenants, conditions, restrictions and easements in the document recorded November 19, 2003 as Instrument No. 17480586 of Official Records, which provide that a violation thereof shall not defeat or render invalid the lien of any first mortgage or deed of trust made in good faith and for value, but deleting any covenant, condition, or restriction, if any, indicating a preference, limitation, or discrimination based on race, color, religion, sex, gender, gender identity, gender expression, sexual orientation, familial status, marital status, disability, handicap, veteran or military status, genetic information, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, to the extent that such covenants, conditions or restrictions violate applicable state or federal laws. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status.

    Liens and charges for upkeep and maintenance as set forth in the above mentioned declaration, payable to Gateway Center of Morgan Hill Owners' Association.

12a. An easement shown or dedicated on the map filed or recorded October 1, 2004 as Book 776, Page 9 of Parcel Maps
    For: Storm drainage, public services and reciprocal ingress and egress and incidental purposes.

    Affects: Parcel 1

    The effect of a document entitled "Quitclaim Deed ", recorded June 2, 2016 as Instrument No. 23322533 of Official Records.

13. An easement for ingress and egress and incidental purposes, recorded October 6, 2004 as Instrument No. 18034388 of Official Records.

In Favor of:	Gateway Retail Center LLC
Affects:	Those portions of Parcel B shown as "Proposed Reciprocal Ingress, Egress & Public Service Easement" and as depicted on that certain Map filed for recorded October 1, 2004 in the Office of the Recorder of the County of Santa Clara, State of California, in Book 776 of Maps, Pages 9 and 10.

    The effect of a document entitled "Quitclaim Deed ", recorded June 2, 2016 as Instrument No. 23322533 of Official Records.

14. The terms and provisions contained in the document entitled "Road Maintenance Agreement" recorded November 1, 2006 as Instrument No. 19167011 of Official Records.

14a. Intentionally Deleted

14b. The terms, provisions and easements contained in the document entitled "Parking-Driveway Easement" recorded November 15, 2016 as Instrument No. 23499307 of Official Records.

Affects: Parcel 1

14c. Intentionally Deleted

14d. Intentionally Deleted

15. Any defects, liens, encumbrances or other matters which name parties with the same or similar names as Oanh Oanh Nguyen Trinh. The name search necessary to ascertain the existence of such matters has not been completed. In order to complete this preliminary report or commitment, we will require a statement of information.

16. Any defects, liens, encumbrances or other matters which name parties with the same or similar names as Nhat Huu Hoang. The name search necessary to ascertain the existence of such matters has not been completed. In order to complete this preliminary report or commitment, we will require a statement of information.

17. Any defects, liens, encumbrances or other matters which name parties with the same or similar names as Ngoc Tram Thi Nguyen. The name search necessary to ascertain the existence of such matters has not been completed. In order to complete this preliminary report or commitment, we will require a statement of information.

18. Water rights, claims or title to water, whether or not shown by the public records.

19. Rights of parties in possession.

Prior to the issuance of any policy of title insurance, the Company will require:

20. Statements of information from all parties to the transaction.

INFORMATIONAL NOTES

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

1. General and special taxes and assessments for the fiscal year 2020-2021.
   First Installment: $3,374.67, PAID
   Penalty: $0.00
   Second Installment: $3,374.67, PAID WITH PENALTY
   Penalty: $357.46
   Tax Rate Area: 04-002
   A. P. No.: 764-10-015

   Affects: Parcel 1

2. General and special taxes and assessments for the fiscal year 2020-2021.
   First Installment: $4,292.18, PAID
   Penalty: $0.00
   Second Installment: $4,292.18, PAID WITH PENALTY
   Penalty: $449.21
   Tax Rate Area: 04-002
   A. P. No.: 764-10-013

   Affects: Parcel 3

3. We find no open deeds of trust. Escrow please confirm before closing.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

LEGAL DESCRIPTION

Real property in the City of Morgan Hill , County of Santa Clara, State of California, described as follows:

PARCEL 1: (APN: 764-10-015)

ALL OF PARCEL B AS SHOWN ON THAT CERTAIN MAP ENTITLED "LOT LINE ADJUSTMENT PARCEL MAP, BEING ALL OF PARCEL 2 AND ALL OF PARCEL 3 AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD ON MARCH 10, 2003, IN BOOK 758 OF MAPS AT PAGES 49-51 AT THE SANTA CLARA COUNTY RECORDER'S OFFICE", WHICH MAP WAS FILED FOR RECORD OCTOBER 1, 2004 IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA, IN BOOK 776 OF MAPS, PAGES 9 AND 10.

PARCEL 2:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS OVER THOSE PORTIONS OF PARCEL A SHOWN AS "PROPOSED RECIPROCAL INGRESS, EGRESS & PUBLIC SERVICE EASEMENT", AND AS DEPICTED ON THAT CERTAIN MAP FILED FOR RECORD OCTOBER 1, 2004 IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA, IN BOOK 776 OF MAPS, PAGES 9 AND 10

PARCEL 3: (APN: 764-10-013)

PARCEL 4, AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD ON MARCH 10, 2003, IN BOOK 758 OF MAPS AT PAGES 49-51 AT THE SANTA CLARA COUNTY RECORDER'S OFFICE.

PARCEL 4:

A NON-EXCLUSIVE EASEMENT FOR RECIPROCAL INGRESS AND EGRESS DESCRIBED AS FOLLOWS:

ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE CITY OF MORGAN HILL, COUNTY OF SANTA CLARA, STATE OF CALIFORNIA AND BEING A PORTION OF THE LANDS OF TODD A. SMITH, AS SAID LANDS ARE DESCRIBED AND DELINEATED IN THAT CERTAIN GRANT DEED, FILED FOR RECORD ON SEPTEMBER 22, 2003 IN DOCUMENT NUMBER 17364257, AT THE OFFICE OF THE RECORDER OF SANTA CLARA COUNTY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE EASTERLY CORNER OF SAID LANDS, WHICH IS COINCIDENT WITH A POINT ON THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF MONTEREY ROAD; THENCE ALONG THE SOUTHEASTERLY LINE OF SAID LANDS, WHICH IS COINCIDENT WITH THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF COCHRANE ROAD, AS SAID STREET RIGHT-OF-WAY IS SHOWN ON THAT CERTAIN MAP ENTITLED, "MAP OF THE SUBDIVISION OF THE CAIRNS TRACT", FILED FOR RECORD ON FEBRUARY 23, 1898 IN BOOK "I" OF MAPS AT PAGE 91, AT SAID COUNTY RECORDER'S OFFICE, SOUTH 51°41'43" WEST, A DISTANCE OF 187.59 FEET TO THE SOUTHERLY CORNER OF SAID LANDS; THENCE ALONG THE SOUTHWESTERLY LINE OF SAID LANDS, NORTH 39°21'28" WEST, A DISTANCE OF 40.01 FEET; THENCE LEAVING SAID LINE AND RUNNING PARALLEL WITH AND DISTANT 40.00 FEET THEREFROM SAID SOUTHEASTERLY RIGHT-OF-WAY LINE OF COCHRANE ROAD, NORTH 51°41'23" EAST, A DISTANCE OF 146.55 FEET; THENCE NORTH 03°23'58" WEST A DISTANCE OF 39.17 FEET TO SAID SOUTHWESTERLY RIGHT-OF-WAY LINE OF MONTEREY ROAD; THENCE ALONG SAID LINE, SOUTH 53°19'48" EAST, A DISTANCE OF 74.68 FEET TO THE POINT OF BEGINNING, BEING THE EASEMENT DESCRIBED IN EXHIBIT "A" OF THE GRANT OF RECIPROCAL INGRESS/EGRESS EASEMENT RECORDED

NOVEMBER 1, 2006 AS INSTRUMENT NO. 19167012 OF OFFICIAL RECORDS.

PARCEL 5:

A NON EXCLUSIVE EASEMENT FOR RECIPROCAL INGRESS AND EGRESS DESCRIBED AS FOLLOWS:

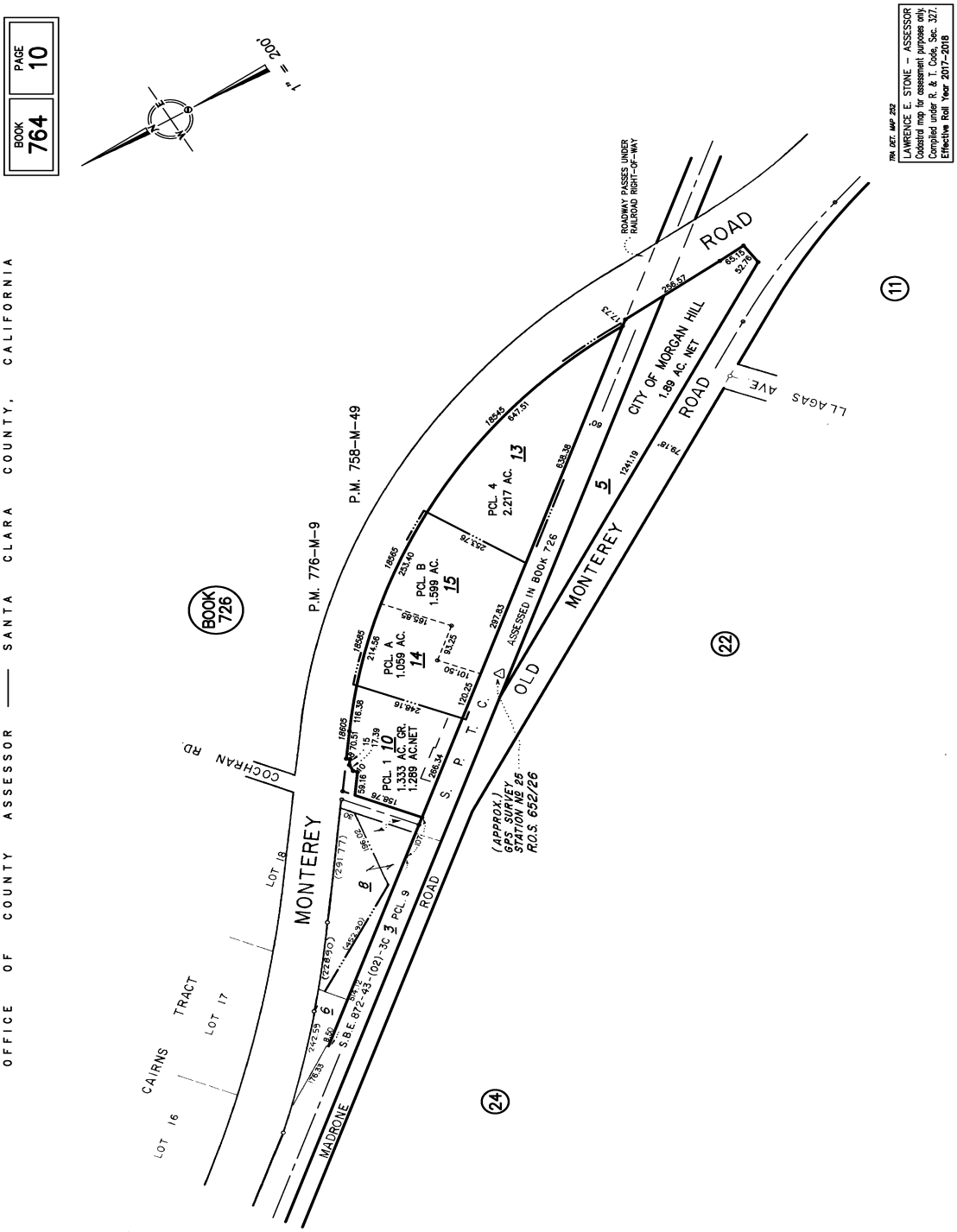
ALL THAT REAL PROPERTY SITUATED IN THE CITY OF MORGAN HILL, COUNTY OF SANTA CLARA, STATE OF CALIFORNIA AND BEING A PORTION OF THE LANDS OF BP WEST COAST PRODUCTS, LLC, AS SAID LANDS ARE DESCRIBED AND DELINEATED IN THAT CERTAIN GRANT DEED, FILED FOR RECORD ON APRIL 2, 2003 IN DOCUMENT NUMBER 16928124, AT THE OFFICE OF THE RECORDER OF SANTA CLARA COUNTY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHERLY CORNER OF THE LANDS OF TODD A. SMITH, AS SAID LANDS ARE DESCRIBED AND DELINEATED IN THAT CERTAIN GRANT DEED, FILED FOR RECORD ON SEPTEMBER 22, 2003 IN DOCUMENT NUMBER 17364257, AT SAID COUNTY RECORDER'S OFFICE, WHICH IS COINCIDENT WITH THE WESTERLY CORNER OF THE LANDS DESCRIBED AND DELINEATED IN SAID DOCUMENT NUMBER 16928124, SAID POINT LYING ON THE NORTHEASTERLY RIGHT-OF-WAY LINE OF THE LANDS OF SOUTHERN PACIFIC TRANSPORTATION COMPANY; THENCE ALONG THE ORIGINAL SOUTHEASTERLY RIGHT-OF WAY LINE OF COCHRANE ROAD, AS SAID RIGHT-OF-WAY IS SHOWN ON THAT CERTAIN MAP ENTITLED, "MAP OF THE SUBDIVISION OF THE CAIRNS TRACT", FILED FOR RECORD ON FEBRUARY 23, 1898 IN BOOK "I" OF MAPS AT PAGE 91 AT SAID COUNTY RECORDER'S OFFICE, NORTH 51°41'23" EAST, A DISTANCE OF 158.75 FEET; THENCE LEAVING SAID LINE, SOUTH 53°19'48" EAST, A DISTANCE OF 55.07 FEET; THENCE SOUTH 49°01'47" WEST, A DISTANCE OF 22.95 FEET; THENCE SOUTH 40°54'47" WEST, A DISTANCE OF 19.32 FEET; THENCE SOUTH 58°34'27" WEST, A DISTANCE OF 52.64 FEET; THENCE SOUTH 49°01'46" WEST, A DISTANCE OF 4.00 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE EAST; THENCE ALONG SAID CURVE HAVING A RADIUS OF 39.00 FEET, THROUGH A CENTRAL ANGLE OF 88°23'15", AN ARC LENGTH OF 60.16 FEET; THENCE SOUTH 50°38'32" WEST, A DISTANCE OF 36.00 FEET TO THE SOUTHWESTERLY LINE OF THE LANDS DESCRIBED AND DELINEATED IN SAID DOCUMENT NUMBER 16928124; THENCE ALONG SAID LINE, NORTH 39°21'28" WEST, A DISTANCE OF 92.09 FEET TO THE POINT OF BEGINNING, BEING THE EASEMENT DESCRIBED IN EXHIBIT "A" OF THE GRANT OF RECIPROCAL INGRESS/EGRESS EASEMENT RECORDED NOVEMBER 1, 2006 AS INSTRUMENT NO. 19167012, OF OFFICIAL RECORDS.

PARCEL 6:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS OVER THE AREAS DESIGNATED ON THE PARCEL MAP FILED IN BOOK 758 OF MAPS, PAGES 49-51, SANTA CLARA COUNTY RECORDS, AS "RECIPROCAL INGRESS, EGRESS & PUBLIC SERVICE EASEMENT"; AS SET FORTH IN THE DOCUMENT ENTITLED "DECLARATION OF COVENANTS, CONDITIONS, & RESTRICTIONS OF GATEWAY CENTER OF MORGAN HILL- A (COMMERCIAL) PLANNED DEVELOPMENT", RECORDED NOVEMBER 19, 2003, DOCUMENT NO. 17480586, OFFICIAL RECORDS.

APN: 764-10-013 and 764-10-015


BOOK 764
PAGE 10
1" = 200'
OFFICE OF COUNTY ASSESSOR — SANTA CLARA COUNTY, CALIFORNIA
TRA DET. MAP 253
LAWRENCE E. STONE — ASSESSOR
Cadastral map for assessment purposes only.
Compiled under R. & T. Code, Sec. 327.
Effective Roll Year 2017–2018
BOOK 726
P.M. 776–M–9
P.M. 758–M–49
COCHRAN RD.
MONTEREY
ROAD
OLD
MONTEREY
ROAD
CITY OF MORGAN HILL
1.89 AC. NET
LLAGAS AVE.
ROADWAY PASSES UNDER RAILROAD RIGHT-OF-WAY
PCL. A
1.059 AC.
14
PCL. B
1.599 AC.
15
PCL. 4
2.217 AC.
13
PCL. 1
1.333 AC. GR.
1.288 AC. NET
10
5
8
6
3
PCL. 9
22
24
11
ASSESSED IN BOOK 726
S. P. T. C.
(APPROX.)
GPS SURVEY
STATION NE 25
R.O.S. 652/26
CAIRNS TRACT
LOT 16
LOT 17
LOT 18
MADRONE
S.B.E. 872-43-(02)-3C

NOTICE

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)

CLTA STANDARD COVERAGE POLICY – 1990

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public, records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the public records at Date of Policy.

CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13)

EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
   a. building;
   b. zoning;
   c. land use;

d. improvements on the Land;
e. land division; and
f. environmental protection.
This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.

2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.
   This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:
For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1% of Policy Amount Shown in Schedule A or $2,500 (whichever is less)	$10,000
Covered Risk 18:	1% of Policy Amount Shown in Schedule A or $5,000 (whichever is less)	$25,000
Covered Risk 19:	1% of Policy Amount Shown in Schedule A or $5,000 (whichever is less)	$25,000
Covered Risk 21:	1% of Policy Amount Shown in Schedule A or $2,500 (whichever is less)	$5,000

2006 ALTA LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

(c) resulting in no loss or damage to the Insured Claimant;
(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.

4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

[Except as provided in Schedule B - Part II,[t[or T]his policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[PART I

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the Public Records at Date of Policy.

PART II

In addition to the matters set forth in Part I of this Schedule, the Title is subject to the following matters, and the Company insures against loss or damage sustained in the event that they are not subordinate to the lien of the Insured Mortgage:]

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

(c) resulting in no loss or damage to the Insured Claimant;
(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 or 10); or
(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.

4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
(a) a fraudulent conveyance or fraudulent transfer, or
(b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:
[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the Public Records at Date of Policy.
7. [Variable exceptions such as taxes, easements, CC&R's, etc. shown here.]

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

    (i) the occupancy, use, or enjoyment of the Land;
    (ii) the character, dimensions, or location of any improvement erected on the Land;
    (iii) the subdivision of land; or
    (iv) environmental protection;

    or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
    (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
(a) created, suffered, assumed, or agreed to by the Insured Claimant;
(b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
(c) resulting in no loss or damage to the Insured Claimant;
(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the

Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.

7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

First American Title™

Privacy Notice

Effective: January 1, 2020

Notice Last Updated: January 1, 2020

This Privacy Notice describes how First American Financial Corporation and its subsidiaries and affiliates (together referred to as "First American," "we," "us," or "our") collect, use, store, and share your information. This Privacy Notice applies to information we receive from you offline only, as well as from third parties. For more information about our privacy practices, please visit https://www.firstam.com/privacy-policy/index.html. The practices described in this Privacy Notice are subject to applicable laws in the places in which we operate.

What Type Of Information Do We Collect About You? We collect both **personal** and **non-personal information** about and from you. **Personal information** is non-public information that can be used to directly or indirectly identify or contact you. **Non-personal information** is any other type of information.

How Do We Collect Your Information? We collect your **personal** and **non-personal information:** (1) directly from you; (2) automatically when you interact with us; and (3) from third parties, including business parties and affiliates.

How Do We Use Your Information? We may use your personal information in a variety of ways, including but not limited to providing the services you have requested, fulfilling your transactions, comply with relevant laws and our policies, and handling a claim. We may use your **non-personal information** for any purpose.

How Do We Share Your Personal Information? We do not sell your **personal information** to nonaffiliated third parties. We will only share your **personal information**, including to subsidiaries, affiliates, and to unaffiliated third parties: (1) with your consent; (2) in a business transfer; (3) to service providers; and (4) for legal process and protection. If you have any questions about how First American shares your **personal information**, you may contact us at dataprivacy@firstam.com or toll free at 1-866-718-0097.

How Do We Secure Your Personal Information? The security of your **personal information** is important to us. That is why we take commercially reasonable steps to make sure your **personal information** is protected. We use our best efforts to maintain commercially reasonable technical, organizational, and physical safeguards, consistent with applicable law, to protect your **personal information**.

How Long Do We Keep Your Personal Information? We keep your **personal information** for as long as necessary in accordance with the purpose for which it was collected, our business needs, and our legal and regulatory obligations.

Your Choices We provide you the ability to exercise certain controls and choices regarding our collection, use, storage, and sharing of your **personal information**. In accordance with applicable law, your controls and choices. You can learn more about your choices, and exercise these controls and choices, by sending an email to dataprivacy@firstam.com or toll free at 1-866-718-0097.

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We may change this Privacy Notice from time to time. Any and all changes to this Privacy Notice will be reflected on this page, and where appropriate provided in person or by another electronic method. **YOUR CONTINUED USE, ACCESS, OR INTERACTION WITH OUR PRODUCTS OR YOUR CONTINUED COMMUNICATIONS WITH US AFTER THIS NOTICE HAS BEEN PROVIDED TO YOU WILL REPRESENT THAT YOU HAVE READ AND UNDERSTOOD THIS PRIVACY NOTICE.**

Contact Us dataprivacy@firstam.com or toll free at 1-866-718-0097.

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First American Title™

For California Residents

If you are a California resident, you may have certain rights under California law, including but not limited to the California Consumer Privacy Act of 2018 ("CCPA"). All phrases used in this section shall have the same meaning as those phrases are used under California law, including the CCPA.

Right to Know. You have a right to request that we disclose the following information to you: (1) the categories of **personal information** we have collected about or from you; (2) the categories of sources from which the **personal information** was collected; (3) the business or commercial purpose for such collection and/or disclosure of your personal information; (4) the categories of third parties with whom we have shared your **personal information**; and (5) the specific pieces of your **personal information** we have collected. To submit a verified request for this information, go to our online privacy policy at www.firstam.com/privacy-policy to submit your request or call toll-free at 1-866-718-0097. You may also designate an authorized agent to submit a request on your behalf by going to our online privacy policy at www.firstam.com/privacy-policy to submit your request or by calling toll-free at 1-866-718-0097 and submitting written proof of such authorization to dataprivacy@firstam.com.

Right of Deletion. You also have a right to request that we delete the **personal information** we have collected from you. This right is subject to certain exceptions available under the CCPA and other applicable law. To submit a verified request for deletion, go to our online privacy policy at www.firstam.com/privacy-policy to submit your request or call toll-free at 1-866-718-0097. You may also designate an authorized agent to submit a request on your behalf by going to our online privacy policy at www.firstam.com/privacy-policy to submit your request or by calling toll-free at 1-866-718-0097 and submitting written proof of such authorization to dataprivacy@firstam.com.

Verification Process. For either a request to know or delete, we will verify your identity before responding to your request. To verify your identity, we will generally match the identifying information provided in your request with the information we have on file about you. Depending on the sensitivity of the personal information requested, we may also utilize more stringent verification methods to verify your identity, including but not limited to requesting additional information from you and/or requiring you to sign a declaration under penalty of perjury.

Right to Opt-Out. We do not sell your personal information to third parties, and do not plan to do so in the future.

Right of Non-Discrimination. You have a right to exercise your rights under California law, including under the CCPA, without suffering discrimination. Accordingly, First American will not discriminate against you in any way if you choose to exercise your rights under the CCPA.

Collection Notice. The following is a list of the categories of personal information we may have collected about California residents in the twelve months preceding the date this Privacy Notice was last updated, including the business or commercial purpose for said collection, the categories of sources from which we may have collected the personal information, and the categories of third parties with whom we may have shared the personal information:

Categories of Personal Information Collected	The categories of personal information we have collected include, but may not be limited to: real name; signature; alias; SSN; physical characteristics or description, including protected characteristics under federal or state law; address; telephone number; passport number; driver's license number; state identification card number; IP address; policy number; file number; employment history; bank account number; credit card number; debit card number; financial account numbers; commercial information; internet or other electronic network activity; geolocation data; audio and visual information; professional or employment information; and inferences drawn from the above categories to create a profile about a consumer.
Categories of Sources	Categories of sources from which we've collected **personal information** include, but may not be limited to: the consumer directly; public records; governmental entities; non-affiliated third parties; social media networks; affiliated third parties
Business Purpose for Collection	The business purposes for which we've collected **personal information** include, but may not be limited to: completing a transaction for our Products; verifying eligibility for employment; facilitating employment; performing services on behalf of affiliated and non-affiliated third parties; debugging to identify and repair errors that impair existing intended functionality on our Websites, Applications, or Products; protecting against malicious, deceptive, fraudulent, or illegal activity

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Categories of Third Parties Shared	The categories of third parties with whom we've shared **personal information** include, but may not be limited to: advertising networks; internet service providers; data analytics providers; service providers; government entities; operating systems and platforms; social media networks; non-affiliated third parties; affiliated third parties

Categories of Personal Information We Have Sold In The Past Year. We have not sold any personal information of California residents to any third party in the twelve months preceding the date this Privacy Notice was last updated.

Categories of Personal Information Disclosed For A Business Purpose In The Past Year. The following is a list of the categories of **personal information** of California residents we may have disclosed for a business purpose in the 12 months preceding the date this Privacy Notice was last updated: The categories of personal information we have collected include, but may not be limited to: real name; signature; alias; SSN; physical characteristics or description, including protected characteristics under federal or state law; address; telephone number; passport number; driver's license number; state identification card number; IP address; policy number; file number; employment history; bank account number; credit card number; debit card number; financial account numbers; commercial information; internet or other electronic network activity; geolocation data; audio and visual information; professional or employment information; and inferences drawn from the above categories to create a profile about a consumer.

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Appendix D ENVIRONMENTAL AGENCY DATABASE SEARCH REPORT

18545 Monterey Road
18545 Monterey Road
Morgan Hill, CA 95037

Inquiry Number: 6534496.2s
June 14, 2021

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

18545 MONTEREY ROAD
MORGAN HILL, CA 95037

COORDINATES

Latitude (North):	37.1426650 - 37° 8' 33.59''
Longitude (West):	121.6633220 - 121° 39' 47.95''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	618715.6
UTM Y (Meters):	4111331.5
Elevation:	352 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640402 MORGAN HILL, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140609
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
18545 MONTEREY ROAD
MORGAN HILL, CA 95037

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	BP 07097	18605 MONTEREY RD	RCRA-VSQG, CERS HAZ WASTE, CERS TANKS, CUPA...	Higher	11, 0.002, NNW
A2	VISION OF SUCCESS IN	18605 MONTEREY RD	RCRA NonGen / NLR	Higher	11, 0.002, NNW
A3	ARCO 07097	18605 MONTEREY RD	UST	Higher	11, 0.002, NNW
A4	MORGAN HILL FUEL	18605 MONTEREY RD	UST	Higher	11, 0.002, NNW
A5	BP CORPORATION NORTH	18605 MONTEREY RD	EDR Hist Auto	Higher	11, 0.002, NNW
A6	ARCO AM/PM #6548	18605 MONTEREY HY	CUPA Listings	Higher	11, 0.002, NNW
B7	MORGAN HILL FIRE DEP	18300 OLD MONTEREY R	CUPA Listings, EMI, HAZNET, CERS, HWTS	Higher	117, 0.022, South
C8	VISION OF SUCCESS IN	18605 MONTEREY ST	CUPA Listings, HAZNET, CERS, HWTS	Higher	185, 0.035, NW
C9	MORGAN HILL FUEL LP	18605 MONTEREY ST	RCRA NonGen / NLR	Higher	185, 0.035, NW
B10	D & T CONSTRUCTION C	18375 OLD MONTEREY R	SWEEPS UST, HIST UST, CA FID UST	Lower	275, 0.052, SW
B11	D & T CONSTRUCTION C	18375 OLD MONTEREY R	HIST UST	Lower	275, 0.052, SW
D12	BIG 5 SPORTING GOODS	150 COCHRANE RD	CUPA Listings	Higher	648, 0.123, North
D13	WALMART SUPERCENTER	170 COCHRANE RD	CERS HAZ WASTE, CUPA Listings, HAZNET, CERS, HWTS	Higher	811, 0.154, North
14	MONUMENT CONSTRUCTIO	520 COCHRANE CIR	RCRA NonGen / NLR	Higher	852, 0.161, NNW
15	CELLIANCE CORPORATIO	260 COCHRANE RD E	CUPA Listings	Higher	1080, 0.205, NNE
16	D'ARDENNE, CATHRINE	245 DEL MONTE CIRCLE	RCRA NonGen / NLR	Higher	1156, 0.219, SSW
E17	AMTECH MICROELECTRON	485 COCHRANE CIR	CERS HAZ WASTE, CUPA Listings, HAZNET, NPDES,...	Higher	1159, 0.220, NNW
E18	AMTECH MICROELECTRON	485 COCHRANE CIR	RCRA NonGen / NLR	Higher	1159, 0.220, NNW
E19	DEPRESSURIZED TECHNO	335 COCHRANE CIR	RCRA-SQG, FINDS, ECHO, HAZNET, ICE, HWP, CERS,...	Higher	1332, 0.252, NNW
20	TORAY ADVANCED COMPO	18410 BUTTERFIELD BL	RCRA-LQG, ENVIROSTOR, WDS	Higher	1562, 0.296, ENE
F21	VOLPI/GAITHER PROP.	17995 MONTEREY RD	LUST, HIST LUST, Cortese, CERS	Higher	2020, 0.383, SSE
F22	ROCCI'S AUTO BODY	17995 MONTEREY RD	LUST, SWEEPS UST, CA FID UST, CUPA Listings, HIST...	Higher	2020, 0.383, SSE
G23	MADRONE LAND CORP./S	645 COCHRANE	ENVIROSTOR, CPS-SLIC, DEED, HIST CORTESE, CERS	Higher	2085, 0.395, NNE
G24	MADRONE LAND CORPORA	645 COCHRANE ROAD	CPS-SLIC	Higher	2085, 0.395, NNE
25	PHOTOTEK	18450 SUTTER BLVD	RCRA-SQG, ENVIROSTOR, HAZNET, HWTS	Higher	3039, 0.576, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROLS ---------- Institutional Controls Sites List

EXECUTIVE SUMMARY

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

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

WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
CDL ---------- Clandestine Drug Labs

Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites

FUELS PROGRAM - EPA Fuels Program Registered Listing
CA BOND EXP. PLAN - Bond Expenditure Plan
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action Listing
Financial Assurance - Financial Assurance Information Listing
HAZNET - Facility and Manifest Data
ICE - ICE
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
Notify 65 - Proposition 65 Records
HAZMAT - Hazardous Material Facilities
UIC - UIC Listing
UIC GEO - UIC GEO (GEOTRACKER)
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List
MILITARY PRIV SITES - MILITARY PRIV SITES (GEOTRACKER)
PROJECT - PROJECT (GEOTRACKER)
WDR - Waste Discharge Requirements Listing
CIWQS - California Integrated Water Quality System
CERS - CERS
NON-CASE INFO - NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS - OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS - PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT - SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ - Well Stimulation Project (GEOTRACKER)
HWTS - Hazardous Waste Tracking System
MINES MRDS - Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner - EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF - Recovered Government Archive Solid Waste Facilities List
RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-VSQG: 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.

A review of the RCRA-VSQG list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BP 07097 EPA ID:: CAR000148650	***18605 MONTEREY RD***	***NNW 0 - 1/8 (0.002 mi.)***	***A1***	***9***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database 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 ENVIROSTOR list, as provided by EDR, and dated 01/25/2021 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TORAY ADVANCED COMPO Facility Id: 71004096 Status: Inactive - Needs Evaluation	***18410 BUTTERFIELD BL***	***ENE 1/4 - 1/2 (0.296 mi.)***	***20***	***191***
MADRONE LAND CORP./S Facility Id: 43010016	***645 COCHRANE***	***NNE 1/4 - 1/2 (0.395 mi.)***	***G23***	***213***

Status: Refer: RWQCB

PHOTOTEK	***18450 SUTTER BLVD***	***NE 1/2 - 1 (0.576 mi.)***	***25***	***216***

Facility Id: 71003458
Status: Inactive - Needs Evaluation

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VOLPI/GAITHER PROP.	***17995 MONTEREY RD***	***SSE 1/4 - 1/2 (0.383 mi.)***	***F21***	***207***

Database: LUST REG 3, Date of Government Version: 05/19/2003
Status: Case Closed
Global ID: T0608558692

ROCCI'S AUTO BODY	***17995 MONTEREY RD***	***SSE 1/4 - 1/2 (0.383 mi.)***	***F22***	***209***

Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014
Database: LUST, Date of Government Version: 03/08/2021
Date Closed: 08/09/1993
Global Id: T0608558692
SCVWD ID: 09S3E20J02F
Status: Completed - Case Closed

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 2 CPS-SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MADRONE LAND CORP./S	***645 COCHRANE***	***NNE 1/4 - 1/2 (0.395 mi.)***	***G23***	***213***

Database: CPS-SLIC, Date of Government Version: 03/08/2021
Facility Status: Completed - Case Closed
Global Id: SL20274892

MADRONE LAND CORPORA	645 COCHRANE ROAD	NNE 1/4 - 1/2 (0.395 mi.)	G24	215

Database: SLIC REG 2, Date of Government Version: 09/30/2004
Facility Id: SL20274892

HIST LUST: 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.

A review of the HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there is 1 HIST LUST site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VOLPI/GAITHER PROP.	***17995 MONTEREY RD***	***SSE 1/4 - 1/2 (0.383 mi.)***	***F21***	***207***
SCVWD ID: 09S3E20J02				

State and tribal registered storage tank lists

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 UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARCO 07097	18605 MONTEREY RD	NNW 0 - 1/8 (0.002 mi.)	A3	91
Database: UST, Date of Government Version: 03/08/2021 Facility Id: FA0261741				
MORGAN HILL FUEL	18605 MONTEREY RD	NNW 0 - 1/8 (0.002 mi.)	A4	91
Database: UST, Date of Government Version: 03/08/2021				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 01/20/2021 has revealed that there are 3 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BP 07097	***18605 MONTEREY RD***	***NNW 0 - 1/8 (0.002 mi.)***	***A1***	***9***
WALMART SUPERCENTER	***170 COCHRANE RD***	***N 1/8 - 1/4 (0.154 mi.)***	***D13***	***115***
AMTECH MICROELECTRON	***485 COCHRANE CIR***	***NNW 1/8 - 1/4 (0.220 mi.)***	***E17***	***169***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
D & T CONSTRUCTION C	***18375 OLD MONTEREY R***	***SW 0 - 1/8 (0.052 mi.)***	***B10***	***113***
Comp Number: 783				

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
D & T CONSTRUCTION C	***18375 OLD MONTEREY R***	***SW 0 - 1/8 (0.052 mi.)***	***B10***	***113***
D & T CONSTRUCTION C	18375 OLD MONTEREY R	SW 0 - 1/8 (0.052 mi.)	B11	114
Facility Id: 00000000783				

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
D & T CONSTRUCTION C	***18375 OLD MONTEREY R***	***SW 0 - 1/8 (0.052 mi.)***	***B10***	***113***
Facility Id: 43011903				
Status: I				

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 CERS TANKS list, as provided by EDR, and dated 01/20/2021 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BP 07097	***18605 MONTEREY RD***	***NNW 0 - 1/8 (0.002 mi.)***	***A1***	***9***

EXECUTIVE SUMMARY

Local Land Records

DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the DEED list, as provided by EDR, and dated 03/02/2021 has revealed that there is 1 DEED site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MADRONE LAND CORP./S	***645 COCHRANE***	***NNE 1/4 - 1/2 (0.395 mi.)***	***G23***	***213***
Status: COMPLETED - CASE CLOSED Envirostor ID: SL20274892				

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/22/2021 has revealed that there are 5 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VISION OF SUCCESS IN EPA ID:: CAL000429898	18605 MONTEREY RD	NNW 0 - 1/8 (0.002 mi.)	A2	88
MORGAN HILL FUEL LP EPA ID:: CAL000332185	18605 MONTEREY ST	NW 0 - 1/8 (0.035 mi.)	C9	110
MONUMENT CONSTRUCTIO	520 COCHRANE CIR	NNW 1/8 - 1/4 (0.161 mi.)	14	164
D'ARDENNE, CATHRINE EPA ID:: CAC002985204	245 DEL MONTE CIRCLE	SSW 1/8 - 1/4 (0.219 mi.)	16	166
AMTECH MICROELECTRON EPA ID:: CAL000407678	485 COCHRANE CIR	NNW 1/8 - 1/4 (0.220 mi.)	E18	178

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VOLPI/GAITHER PROP.	***17995 MONTEREY RD***	***SSE 1/4 - 1/2 (0.383 mi.)***	***F21***	***207***
Cleanup Status: COMPLETED - CASE CLOSED				

EXECUTIVE SUMMARY

CUPA Listings: A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

A review of the CUPA Listings list, as provided by EDR, has revealed that there are 8 CUPA Listings sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BP 07097	***18605 MONTEREY RD***	***NNW 0 - 1/8 (0.002 mi.)***	***A1***	***9***
Database: CUPA SANTA CLARA, Date of Government Version: 02/24/2021				
ARCO AM/PM #6548	18605 MONTEREY HY	NNW 0 - 1/8 (0.002 mi.)	A6	92
Database: CUPA SANTA CLARA, Date of Government Version: 02/24/2021				
MORGAN HILL FIRE DEP	***18300 OLD MONTEREY R***	***S 0 - 1/8 (0.022 mi.)***	***B7***	***92***
Database: CUPA SANTA CLARA, Date of Government Version: 02/24/2021				
VISION OF SUCCESS IN	***18605 MONTEREY ST***	***NW 0 - 1/8 (0.035 mi.)***	***C8***	***102***
Database: CUPA SANTA CLARA, Date of Government Version: 02/24/2021				
BIG 5 SPORTING GOODS	150 COCHRANE RD	N 0 - 1/8 (0.123 mi.)	D12	115
Database: CUPA SANTA CLARA, Date of Government Version: 02/24/2021				
WALMART SUPERCENTER	***170 COCHRANE RD***	***N 1/8 - 1/4 (0.154 mi.)***	***D13***	***115***
Database: CUPA SANTA CLARA, Date of Government Version: 02/24/2021				
CELLIANCE CORPORATIO	260 COCHRANE RD E	NNE 1/8 - 1/4 (0.205 mi.)	15	166
Database: CUPA SANTA CLARA, Date of Government Version: 02/24/2021				
AMTECH MICROELECTRON	***485 COCHRANE CIR***	***NNW 1/8 - 1/4 (0.220 mi.)***	***E17***	***169***
Database: CUPA SANTA CLARA, Date of Government Version: 02/24/2021				

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ROCCI'S AUTO BODY	***17995 MONTEREY RD***	***SSE 1/4 - 1/2 (0.383 mi.)***	***F22***	***209***
Reg Id: 989				
MADRONE LAND CORP./S	***645 COCHRANE***	***NNE 1/4 - 1/2 (0.395 mi.)***	***G23***	***213***
Reg Id: 43010016				

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 02/16/2021 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEPRESSURIZED TECHNO	***335 COCHRANE CIR***	***NNW 1/4 - 1/2 (0.252 mi.)***	***E19***	***180***
EPA ID: CAD983665068				

Cleanup Status: CLOSED

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

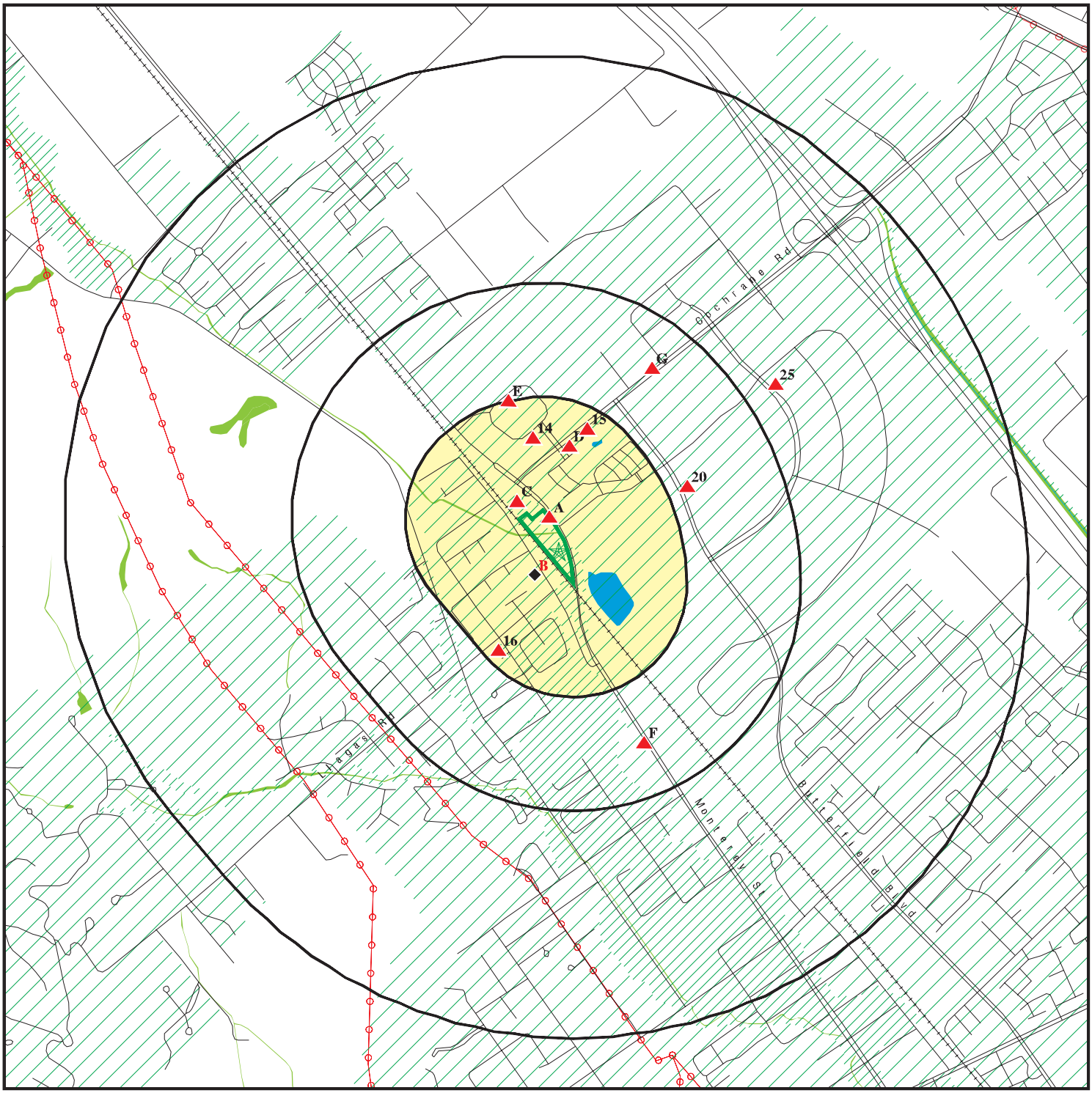
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BP CORPORATION NORTH	18605 MONTEREY RD	NNW 0 - 1/8 (0.002 mi.)	A5	92

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
	CDL
FORMER WHITE GASOLINE	LUST

OVERVIEW MAP - 6534496.2S



- 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

0 1/4 1/2 1 Miles

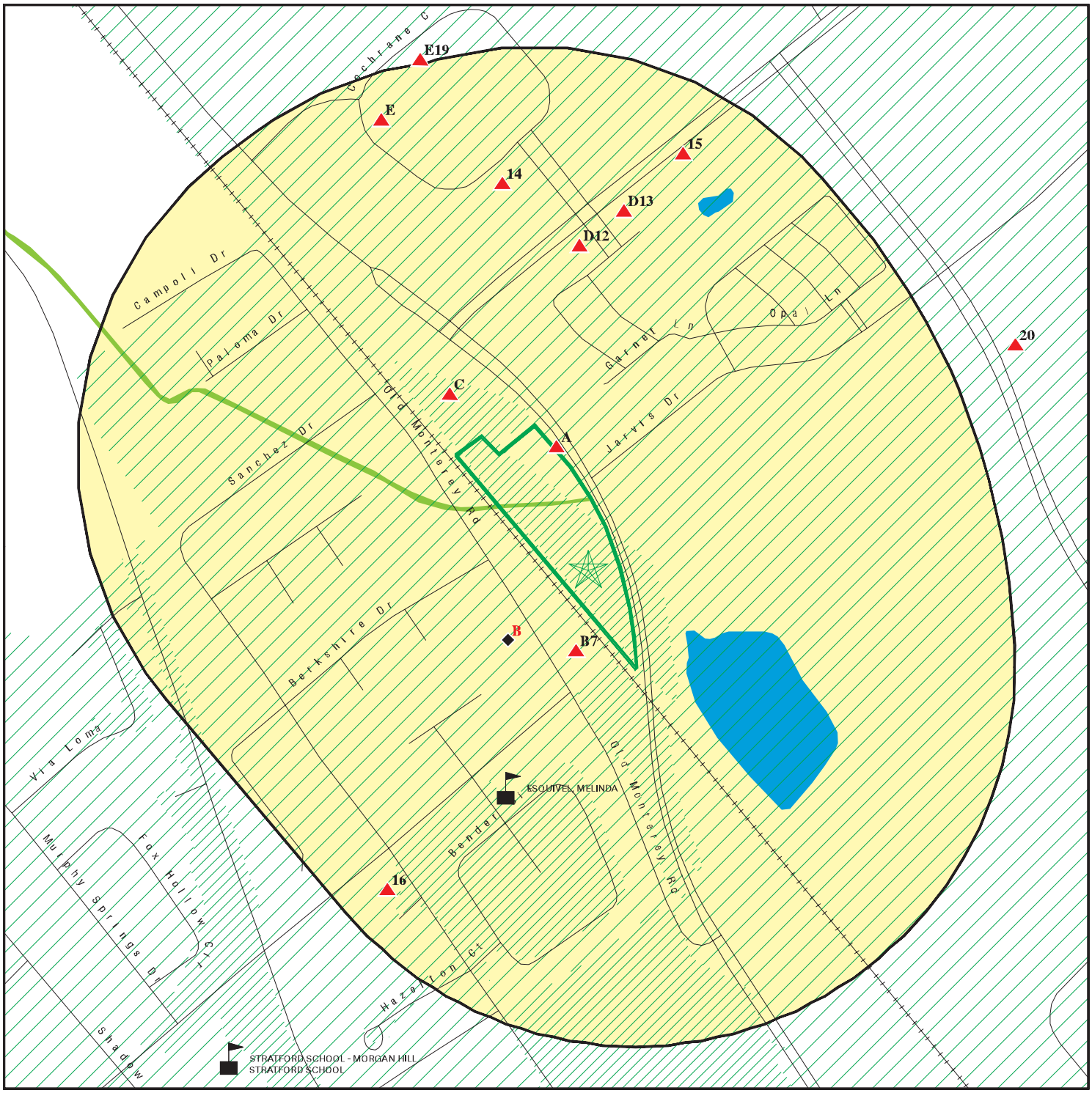
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

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: 18545 Monterey Road ADDRESS: 18545 Monterey Road Morgan Hill CA 95037 LAT/LONG: 37.142665 / 121.663322	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6534496.2s DATE: June 14, 2021 10:38 am

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DETAIL MAP - 6534496.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- 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: 18545 Monterey Road	CLIENT: Stantec
ADDRESS: 18545 Monterey Road Morgan Hill CA 95037	CONTACT: Alicia Jansen INQUIRY #: 6534496.2s
LAT/LONG: 37.142665 / 121.663322	DATE: June 14, 2021 10:40 am

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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								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		1	0	NR	NR	NR	1
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	2	1	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	2	NR	NR	2

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	2	NR	NR	2
HIST LUST	0.500		0	0	1	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	0	NR	NR	NR	2
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
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								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		1	2	NR	NR	NR	3
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		1	0	NR	NR	NR	1
HIST UST	0.250		2	0	NR	NR	NR	2
CA FID UST	0.250		1	0	NR	NR	NR	1
CERS TANKS	0.250		1	0	NR	NR	NR	1
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	1	NR	NR	1
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		2	3	NR	NR	NR	5
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	1	NR	NR	1
CUPA Listings	0.250		5	3	NR	NR	NR	8

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
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	2	NR	NR	2
HWP	1.000		0	0	1	0	NR	1
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
HAZMAT	0.250		0	0	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	17	8	12	1	0	38

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

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **BP 07097** **RCRA-VSQG** **1007091382**
NNW **18605 MONTEREY RD** **CERS HAZ WASTE** **CAR000148650**
< 1/8 **MORGAN HILL, CA 95037** **CERS TANKS**
0.002 mi. **CUPA Listings**
11 ft. **Site 1 of 6 in cluster A** **HAZNET**

Relative:
Higher

Actual:
353 ft.

RCRA-VSQG:

Date Form Received by Agency:		2017-09-15 00:00:00.0
Handler Name:	BP 07097	
Handler Address:		18605 MONTEREY RD
Handler City,State,Zip:		MORGAN HILL, CA 95037
EPA ID:		CAR000148650
Contact Name:		DARYL LEE
Contact Address:		PO BOX 6038
Contact City,State,Zip:		ARTESIA, CA 90702
Contact Telephone:		415-902-5089
Contact Fax:		Not reported
Contact Email:		DARYL.LEE@BP.COM
Contact Title:		ENVIRONMENTAL COMPLIANCE SPECIALIST
EPA Region:		09
Land Type:		Private
Federal Waste Generator Description:		Conditionally Exempt 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:		PO BOX 80249
Mailing City,State,Zip:		RANCHO SANTA MARGARITA, CA 92688
Owner Name:		BP WEST COAST PRODUCTS LLC
Owner Type:		Private
Operator Name:		BP PRODUCTS NORTH AMERICA
Operator Type:		Private
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		NN
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

BP 07097 (Continued) **1007091382**

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:	2017-09-28 17:05:03.0
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:	D008
Waste Description:	LEAD
Waste Code:	D018
Waste Description:	BENZENE

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	BP WEST COAST PRODUCTS LLC
Legal Status:	Private
Date Became Current:	2003-09-09 00:00:00.
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

BP 07097 (Continued) **1007091382**

Owner/Operator Name:	BP PRODUCTS NORTH AMERICA
Legal Status:	Private
Date Became Current:	2017-07-27 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 6038
Owner/Operator City,State,Zip:	ARTESIA, CA 90702
Owner/Operator Telephone:	415-902-5089
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	DARYL.LEE@BP.COM

Owner/Operator Indicator:	Operator
Owner/Operator Name:	BP WEST COAST PRODUCTS LLC
Legal Status:	Private
Date Became Current:	2003-09-09 00:00:00.
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:	BP WEST COAST PRODUCTS LLC
Legal Status:	Private
Date Became Current:	2003-09-09 00:00:00.
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:	BP WEST COAST PRODUCTS LLC
Legal Status:	Private
Date Became Current:	2003-09-09 00:00:00.
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:	BP WEST COAST PRODUCTS LLC
Legal Status:	Private
Date Became Current:	2017-07-27 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 6038
Owner/Operator City,State,Zip:	ARTESIA, CA 90702
Owner/Operator Telephone:	415-902-5089
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported

BP 07097 (Continued) **1007091382**

Owner/Operator Email: DARYL.LEE@BP.COM

Historic Generators:

Receive Date: 2003-10-13 00:00:00.0
Handler Name: ARCO FACILITY NO 6548
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: 2006-12-13 00:00:00.0
Handler Name: ARCO FACILITY NO 6548
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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2017-09-15 00:00:00.0
Handler Name: BP 07097
Federal Waste Generator Description: Conditionally Exempt 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 Code: 44711
NAICS Description: GASOLINE STATIONS WITH CONVENIENCE STORES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

CERS HAZ WASTE:

Name: ARCO 07097

BP 07097 (Continued) **1007091382**

Address: 18605 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Site ID: 50146
CERS ID: 10348117
CERS Description: Hazardous Waste Generator

Violations:

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
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 08/01/2017. The following routinely handled hazardous materials were observed on-site in HMBP reporting thresholds: - hazardous waste, liquid (gasoline/water mixture) - liquid carbon dioxide
Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
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 08/01/2017. The facility has not provided a written response with the corrective actions taken for violations issued in the Official Notice of Inspection Reports issued on 8/4/2015, 8/6/2014, and 8/5/2013. THIS UNCORRECTED VIOLATION HAS BEEN ESCALATED TO A CLASS I VIOLATION AND REQUIRES IMMEDIATE CORRECTIVE ACTION.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes: Returned to compliance on 08/01/2017. Violation remains uncorrected from 8/5/2013.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h)

BP 07097 (Continued) **1007091382**

Violation Description:	Failure to have an approved UST Response Plan.
Violation Notes:	Returned to compliance on 08/01/2017. The UST Response Plan identifies employee Noemi Mendez as a Responsible Person for Authorizing Any Work on the UST systems, but Ms. Mendez is no longer an employee at this facility. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORT ISSUED ON 8/4/2016 AND HAS BEEN ESCALATED TO A CLASS II VIOLATION.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	23 CCR 16 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2711(a)(8)
Violation Description:	Failure to submit, obtain approval, or maintain a complete/accurate plot plan.
Violation Notes:	Returned to compliance on 08/01/2017. 4/2/2013 CERS submittal did not include a monitoring Site Plan. Upload the 4/2/2013 HMBP Site Map as the Monitoring Site Plan since it contains the required information. Do not upload PDF copies of obsolete UST Monitoring Plan forms.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to maintain on site an approved monitoring plan.
Violation Notes:	Returned to compliance on 08/01/2017. Plans submitted via CERS contain errors. See CERS regulator comments.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
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 08/01/2017. Dispenser fuel filters currently in use are marked with an installation date of 1/27/2017, no used fuel filters were observed on-site, and per a manifest review "hazardous waste, solids contaminated with benzene" have not been disposed of since 2014. No records of the used fuel filter’s transfer, as outlined below, from the past 3 years are available for review.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097

BP 07097 (Continued) **1007091382**

Violation Date:	08-06-2014
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 08/01/2017. No written response has been submitted for 8/5/2013 Notice to Comply.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 08/01/2017. No training records other than DUSTO training.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11
Violation Description:	Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method.
Violation Notes:	Returned to compliance on 08/01/2017. 1) Three one gallon containers that appear to contain used oil were observed next to the trash dumpsters behind the facility. Determine the contents of the containers and if they meet hazardous waste criteria or the definition of "used oil." If determined to be hazardous waste or used oil, collect and manage as hazardous waste. Provide documentation of the hazardous waste determination to HMCD for review. 2) Per the 2/23/2017 DUSTO Inspection Report, liquid was removed from the 91 STP sump by "Station Personnel" and per the 1/30/2017 DUSTO Inspection Report, liquid was removed from UDC 3/4 and the 91 STP sump "by Owner," but no liquid was observed to be accumulating on-site during inspection and no Uniform Hazardous Waste Manifest identifies liquid hazardous waste since 3/10/2016. Liquid removed from the UST system may meet hazardous waste criteria (e.g. ignitability, toxicity) and a hazardous waste determination must be conducted prior to its disposal. It is of note [Truncated]
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2715(c) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(c)

BP 07097 (Continued) **1007091382**

Violation Description:	Failure to comply with one or more of the following designated operator (DO) monthly inspection requirements: Be performed by an ICC certified DO. Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy. Inspect for the presence of liquid/debris in spill containers. Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly. Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit. Check that all testing and maintenance has been completed and documented. Verify that all facility employees have been properly trained.
Violation Notes:	Returned to compliance on 08/01/2017. The DUSTO Monthly Inspection Reports from the following dates do not demonstrate that the DUSTO inspected all required elements: - 4/27/2017: Report states that line tightness testing was completed on 4/27/2017, but the facility does not conduct line tightness testing. - 3/27/2017: Report states that line tightness testing was completed on 3/27/2017, but the facility does not conduct line tightness testing. - 2/23/2017: Report states that line tightness testing was completed on 2/23/2017, but the facility does not conduct line tightness testing. - 1/30/2017: Report states that line tightness testing was completed on 1/30/2017, but the facility does not conduct line tightness testing. - 9/30/2016: Report states that line tightness testing was completed on 9/30/2016, but the facility does not conduct line tightness testing. - 8/26/2016: Report states that sensors located in tank top, buried, or non-readily accessible containment areas have not alarmed in the past [Truncated]
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2015
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 08/01/2017. **This is a repeat violation.** The UST insurance policy (G24785610-001) expired 3/26/2015. Certification of Financial Responsibility submitted to CERS on 9/1/2014 does not list a coverage period (beginning - ending)
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	Un-Specified
Violation Description:	UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes:	Returned to compliance on 08/01/2017. No written response has been submitted for 8/5/2013 Notice to Comply.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST

BP 07097 (Continued) **1007091382**

Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2632(d)(1)(C), 2641(h), 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(d)(1)(C), 2641(h), 2711(a)(8)
Violation Description:	Failure to submit or update a plot plan.
Violation Notes:	Returned to compliance on 08/01/2017. The UST Monitoring Site Plan does not include the piping layouts for all three UST systems.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
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 08/01/2017. The Certificate of Financial Responsibility, dated 8/29/2014 and submitted on CERS on 9/1/2014 was signed by Asad Nicola / Operator and witnessed by Mark Fajardin, SR. The form list's the incorrect business name (TECH, LLC) the correct business name is (TECK, LLC). The mechanism selected is "Pollution Insurance" and the box for Coverage Period is incorrect for not listing the dates when coverage begins and ends. The insurance policy #G24793175001, coverage period (7/31/15 - 7/31/16), Producer RAM Commercial Services 408-776-2800 was expired and did not list TECK, LLC as the insured. The policy listed Morgan Hill Fuel, LLC as the insured. The copy of the policy did not contain any endorsement language for meeting the requirements of 40 CFR 280.97.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2638(d) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638(d)
Violation Description:	Failure to submit the Annual Monitoring System Certification Form to the CUPA within 30 days of completion of the test.
Violation Notes:	Returned to compliance on 08/01/2017. 1) The 8/2/2016 Monitoring System Certification and spill bucket testing results has not been submitted to HMCD. 2) The 87-main (South) fill spill bucket that failed hydrostatic testing on 8/2/2016 was replaced on 8/18/2016 with an HMCD inspector present and the repair was approved under an HMCD permit. However, a copy of the spill bucket test result was not submitted to HMCD within 30 days as required and as instructed in the Official Notice of Inspection Report issued on 8/18/2016.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS

BP 07097 (Continued) **1007091382**

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-05-2013
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 08/01/2017. OBSERVED 1-55 GALLON CLOSED TOP AND 1-55 GALLON OPEN TOP DRUMS BOTH MARKED WITH A HAZARDOUS WASTE LABEL; HOWEVER ALL REQUIRED INFORMATION WAS SUN FADED AND NOT LEGIBLE. NEW HAZARDOUS WASTE LABELS WERE PROVIDED.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2016
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description: Failure to have a UST Response Plan available on site.
Violation Notes: Returned to compliance on 08/01/2017. The Response Plan submitted via CERS on 9/1/2014 is not current as Ms. Noemi Mendez is no longer employed at this facility.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 22 CCR 12 66262.23(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)
Violation Description: Failure to properly complete the Uniform Hazardous Waste Manifest.
Violation Notes: Returned to compliance on 08/01/2017. 1) Manifest #008722358FLE (Ship Date: 3/10/2016) identifies a hazardous waste as "Gasoline Mixture, 3, PG II," but only identifies the waste with State waste code 134. Pursuant to 22CCR 66261.20(b) and 22CCR 66261.21(b), hazardous wastes meeting ignitability criteria must be identified by EPA Hazardous Waste Number D001 on manifests. 2) Manifest #007626297FLE (Ship Date 9/9/2014) identifies a hazardous waste as "non-RCRA hazardous waste, solid (ERG #171)" in Box 9b. Non-RCRA hazardous wastes must be identified either as "non-RCRA hazardous waste, solid" or "non-RCRA hazardous waste, liquid" and described by a name from Appendix X or if not included in Appendix X, a commonly recognized industrial name must be used (e.g. used oil) [22CCR 66262.23(a)(5)(A)}. Furthermore, DTSC Guidance Letter "Manifest Regulations Frequently Asked Questions (by Box # on the manifest form)" states "Box 9b should not be used for adding density of waste, specific gravity, profile information, [Truncated]
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146

BP 07097 (Continued) **1007091382**

Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description:	Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements:Monitor at least hourly.Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.
Violation Notes:	Returned to compliance on 08/01/2017. The 87-grade PLLD failed to detect a simulated leak when tested. This same PLLD failed during the 2015 annual test and required repairs. This is a SIGNIFICANT VIOLATION THAT SHALL BE CORRECTED IN 7-DAYS. Failure to comply may result in enforcement action by this office.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description:	Failure to comply with one or more of the following: failure to install a spill bucket, have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container, and/or be resistant to galvanic corrosion.
Violation Notes:	Returned to compliance on 08/01/2017. The 2 tank fill spill buckets on the 87 Master tank were missing the gaskets that seal the lower bucket to the containment extension attached to the manway lid, thus limiting their liquid capacity. Replacement of the gaskets and testing of those buckets was still pending at the end of the site visit portion of this inspection yesterday. Testing of the buckets had to be done one at a time since all fill caps are missing their gaskets and testing was done using a single cap provided by Eco-Chek. All caps must be replaced with caps having gaskets.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2015
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 08/01/2017.
	Observed 1x55-gallon drum marked as waste gasoline and water that did not have the Accumulation Start Date.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS

BP 07097 (Continued) **1007091382**

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description:	Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.
Violation Notes:	Returned to compliance on 08/01/2017. Accumulation start date on 55 gallon drum holding used absorbant, dispenser hose, and gasoline filters is 8/10/2010.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description:	Failure to obtain and maintain a valid operation permit from the CUPA.
Violation Notes:	Returned to compliance on 08/01/2017. 5-Year permit issued by Santa Clara County Fire Department on 1/1/2010 does not show the name of the requested permit holder (UST owner Morgan Hill Fuel LP).
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 08/01/2017. Property Owner is not correct. Property records show owner is Teck LLC. If Morgan Hill Fuel LP is the operator of the facility, report that name as Business Operator. See CERS regulator comments.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h)
Violation Description:	Failure to have an approved UST Monitoring Plan.
Violation Notes:	Returned to compliance on 08/01/2017. The UST Monitoring Plans for the Regular Main UST system (T1) and Premium UST system (T3) identify employee Noemi Mendez as the Second Person Having Responsibility for the UST systems, but Ms. Mendez is no longer an employee at this facility. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORT ISSUED ON 8/4/2016 AND HAS BEEN ESCALATED TO A CLASS II VIOLATION.
Violation Division:	Santa Clara County Environmental Health

BP 07097 (Continued) **1007091382**

Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description: Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.
Violation Notes: Returned to compliance on 08/01/2017. CERS data contains errors. Refer to regulator comments on CERS.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description: Failure to obtain a valid permit to operate from the CUPA.
Violation Notes: Returned to compliance on 08/01/2017. The facility does not have a UST Permit to Operate. Correct all open violations and provide a written response with the corrective actions taken for each violation and a signed Certification of Compliance to HMCD. A Permit to Operate will be issued upon verification that the facility has returned to full compliance. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORTS ISSUED ON 8/4/2016 (CLASS I) AND 8/6/2014 (CLASS II) AND REQUIRES IMMEDIATE CORRECTIVE ACTIONS TO BE TAKEN.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: HSC 6.7 25293 - California Health and Safety Code, Chapter 6.7, Section(s) 25293
Violation Description: Failure to maintain UST records of monitoring, testing, repairing, and closure in sufficient detail to enable the CUPA to determine whether the UST systems are in compliance.
Violation Notes: Returned to compliance on 08/01/2017. An HMCD inspector was on-site on 8/18/2016 to witness the functional testing of the 87-grade electronic line leak detector (ELLD), but due to the repetitive nature of the ELLD failing functional testing, the inspector requested that the following information be submitted to HMCD within 30 days (9/18/2016) to demonstrate functionality of the 87-grade ELLD and that the 87-grade UST systems are in compliance: - "A written procedure and proof of training of all employees that ensures the 87-grade turbines will not loose suction due to a low fuel level. It is recommended that in-lieu of procedures & training (administrative controls) that the Veeder-Root be programmed (engineering controls) to shutdown the turbines at a known fuel level that prevents the introduction of air into the 87-piping loop" - "Confirmation that a copy of the wiring diagram and description of operation that is specific to this station (integration with the Veeder-Root monitoring panel) has been

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	[Truncated]
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 08/01/2017. _____ The afternoon Manager, Israel Aras has not received training for hazardous waste. _____
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Description:	Failure to comply with one or more of the following: conduct secondary containment testing, within six months of installation and every 36 months thereafter, conducted in accordance with proper practices, protocols, or test methods.
Violation Notes:	Returned to compliance on 08/01/2017. Testing was due in April of this year but was done until 6/3/2014. Ensure that next round of testing is done in April of 2017 and every 36 months thereafter as required.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	22 CCR 11 66261.7 - California Code of Regulations, Title 22, Chapter 11, Section(s) 66261.7
Violation Description:	Failure to manage empty containers greater than 5 gallons in capacity that previously held a hazardous material/waste in accordance with 22 CCR 11 66261.7 including but not limited to the following: (e)(2)By reclaiming its scrap value onsite or shipping the container or inner liner to a person who reclaims its scrap value; or (3) By reconditioning or remanufacturing the container or inner liner onsite for subsequent reuse, or shipping the container or inner liner to a person who reconditions or remanufactures the container or inner liner; or (4) By shipping the container or inner liner to a supplier or to another intermediate collection location for accumulation prior to managing the container or inner liner pursuant to subsections (e)(2) or (e)(3) of this section; or (i) By shipping the container or inner liner back to the supplier for the purpose of being refilled. (f) A container or an inner liner removed from a container larger than five gallons in capacity which is managed pursuant to subsection (e)

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	of this section shall be marked with the date it has been emptied and shall be managed within one year of being emptied.
Violation Notes:	Returned to compliance on 08/01/2017. One 1 gallon container of Lotion Hand Soap containing approximately 8 ounces of soap was observed in the facility's trash dumpster. Containers 5 gallons in size or smaller that formerly held a hazardous material or hazardous waste must be completely empty of all pourable and scrapable contents prior to disposal.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-05-2013
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes:	Returned to compliance on 08/01/2017. BY THE VIOLATIONS NOTED ABOVE, FACILITY PERSONNEL ARE NOT CONDUCTING WEEKLY HAZARDOUS WASTE CONTAINER AREA INSPECTION.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-05-2013
Citation:	23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description:	Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.
Violation Notes:	Returned to compliance on 08/01/2017. PLLD (Q1) FOR THE 87-GRADE FAILED TO DETECT A SIMULATED LEAK OF 3-GALLONS PER HOUR AT 10-PSI. THIS VIOLATION MUST BE CORRECTED BY 9/5/13. THIS OFFICE WILL NOT ACCEPT TEST RESULTS FOR Q1 PLLD (87-GRADE) UNLESS THE FUNCTIONAL TEST IS WITNESSED BY THIS OFFICE. CONTACT RAY MAIDEN AT 408-918-1980 TO WITNESS THE RETESTING OF Q1 PLLD. IN SPEAKING WITH THE TECHNICIAN (NIC ZAGOROV FROM ECO-CHEK) THIS SAME PLLD FAILED LAST YEAR. THE LINE LENGH WAS ESTIMATED TO BE 245 FT; HOWEVER, THE PLLD PROGRAM IS SET AT 175 FT.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 08/01/2017. 4/2/2013 CERS submittal only

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contains 2 pages of the Unidocs Emergency Response/Contingency Plan. Upload all pages of the plan (5/11 through 7/11) as a single PDF file.
Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2016
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description: Failure to comply with one or more of the following: Failure to install or maintain a liquid-tight spill bucket. Have a minimum capacity of five gallons. Have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container. Be resistant to galvanic corrosion.
Violation Notes: Returned to compliance on 08/01/2017. The 87-grade spill bucket failed the 5-gallon 60-minute hydrostatic test.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2016
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description: Failure to maintain records of repairs, lining, and upgrades on site, or off site if approved by the CUPA, for the life of the UST.
Violation Notes: Returned to compliance on 08/01/2017. On the DUSTO Monthly Visual Inspection report dated, 5/25/16 the DUSTO (Mark Fajardin, Sr.) noted that the "Veeder-Root printer is currently down & cannot check alarm history". There was no maintenance record documenting the repair of the printer. On the DUSTO Monthly Visual Inspection report dated, 7/27/16 the DUSTO (Mark Fajardin, Sr.) noted the cause of the alarms noted on 7/15/16 and 7/16/16 were from an "upgrade of a site controller". The DUSTO noted the source of the information was from Mr. Asad Nicola, Station Manager. I spoke to Mr. Nicola on 8/2/16 during the inspection and he did not recall making that statement and that he had no idea what caused the alarms in July. The source of the alarms remains unresolved and requires investigation. See additional comments below regarding this DUSTO report & PLLD alarms. This violation have been elevated to a Class II violation due to the number of sensors involved (9-Liquid Sensors & 2-PLLDs) and the total number of [Truncated]
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 23 CCR 16 2641(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(a)
Violation Description: Failure of leak detection equipment to be located such that equipment is capable of detecting a leak at the earliest possible opportunity.
Violation Notes: Returned to compliance on 08/01/2017. 1) The test boot on one of two

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product piping lines in the 87-auxiliary STP sump was observed to be on and the schrader valve was observed in the "12 o'clock position." 2) The test boot on the product piping line in the 91-grade STP sump was observed to be on and the schrader valve was observed to be in the "2 o'clock position." The 87-auxiliary test boot was rotated to a "6 o'clock position" and the 91-grade test boot was pulled back to allow any leaks in the product piping to be monitored at the earliest opportunity. This violation was corrected at the time of inspection. NO FURTHER ACTION IS NEEDED.

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2016
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 08/01/2017. The UST Facility Operating Permit Application submitted to CERS on 9/1/14 has selected State Fund / CD as the Financial Responsibility mechanism, which is inconsistent with the Certification of Financial Responsibility, dated 8/29/14. Tank information submitted on CERS on 9/1/2014 is incomplete as the date of installation for all USTs was not completed. This is a repeat violation as it was also noted on the 8/6/14 inspection report; elevated to a degree of Class II.

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes: Returned to compliance on 08/01/2017. Violation remains uncorrected from 8/5/2013.

Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description: Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.
Violation Notes: Returned to compliance on 08/01/2017.

UST

Facility Information that was submitted on CERS on 9/1/2014 lists both CD and insurance policy neither of which could be verified during today's inspection.

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Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Description: Failure to conduct secondary containment testing, or one or more of the following requirements: Perform the test within six months of installation and every 36 months thereafter.Use a procedure that demonstrates the system works as well as at installation.Use applicable manufacturer guidelines, industry codes, engineering standard, or professional engineer approval.Performed by a certified service technician or a licensed tank tester.
Violation Notes: Returned to compliance on 08/01/2017. All UST systems' secondary containment (SB989) testing was due in April of this year (2017), but has not been conducted as of today's inspection (5/11/2017). It is of note that the DUSTO Monthly Inspection Reports all state "SB989 ANNIVERSARY IS APRIL 2014" and the Official Notice of Inspection Reports issued on 8/4/2016, 8/4/2015, and 8/6/2014 remind the facility that SB989 testing is due April 2017. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORT ISSUED ON 8/6/2014 AND REQUIRES IMMEDIATE CORRECTIVE ACTION.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.
Violation Notes: Returned to compliance on 08/01/2017.
_____ The 87-Grade electronic line leak detector failed the required test during today's inspection. It appears that this same violation occurred during UST Monitoring Certifications on 8/6/2014 & 8/5/2013. **THIS IS A SIGNIFICANT UST VIOLATION THAT SHALL BE CORRECTED WITHIN 7-DAYS (BY AUGUST 11, 2015).** Failure to comply by August 11, 2015 may result in Red Tagging of your 87-grade tanks or other enforcement.
_____
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple

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Violation Description:	Business Plan Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 08/01/2017. Facility failed to respond to a notice to comply with the actions taken to correct each violation cited in the inspection report. -- An HMBP inspection was conducted and Official Notice of Inspection (NOI) with violations that require corrective action was delivered on 8/6/2014 and 8/4/2015. As of 5/11/2017, the facility has not provided a written response with the corrective actions taken for each violation. -- A person who receives an inspection report detailing a violation shall have not more than 30 days from the date of the report issuance to provide HMCD with a statement documenting corrective actions taken or dispute the existence of the violation. Within five working days of correcting the violation, the person cited or an authorized representative shall sign the report, certifying that any violation has been corrected, and return the notice to HMCD [HSC 25404.2(b), 25404.1.2(c)(1)].
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain and/or maintain an Active EPA ID.
Violation Notes:	Returned to compliance on 08/01/2017. EPA ID #CAL000332185 has been inactive since 6/30/2012.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description:	Failure to comply with one or more of the following: Failure to install or maintain a liquid-tight spill bucket. Have a minimum capacity of five gallons. Have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container. Be resistant to galvanic corrosion.
Violation Notes:	Returned to compliance on 08/01/2017. The 87-Main North fill spill bucket failed the 5 gallon, 60 minute hydrostatic test today.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-05-2013
Citation:	22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16
Violation Description:	Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan

BP 07097 (Continued) **1007091382**

implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 08/01/2017. BY THE VIOLATIONS NOTED ABOVE, FACILITY PERSONNEL ARE NOT THROUGHLY FAMILIAR WITH REQUIREMENT FOR MANAGING HAZARDOUS WASTE.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
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 08/01/2017. Current insurance policy number and issuer information are different from information shown on Certification of Financial Responsibility (CFR) form submitted via CERS. CFR form does not specify insurance policy period dates and has no date for witness signature. Form states that financial responsibility is being demonstrated by Teck LLC and insurance policy shows name of insured as Teck LLC. Teck LLC is the property owner, but according to submitted UST permit application information, Teck LLC is neither the UST owner nor UST operator. Financial responsibility must be demonstrated by the UST owner or operator.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes: Returned to compliance on 08/01/2017. Drum of hazardous waste liquid was reportedly shipped within the past week, but facility has no manifest copy.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

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Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to have a UST Monitoring Plan available on site.
Violation Notes:	Returned to compliance on 08/01/2017. All UST Monitoring Plans list employee Noemi Mendez as the Second Person Having Responsibility for the USTs. Ms. Noemi Mendez is no longer employed at this facility.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-11-2015
Citation:	23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description:	Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.
Violation Notes:	Returned to compliance on 08/18/2015. **THIS IS A SIGNIFICANT UST VIOLATION SHALL BE CORRECTED WITHIN 7-DAYS (BY AUGUST 18, 2015).** The Significant Violation (Violation Code: T372) issued on 8/4/2015 remains uncorrected. This office will extend the comply by date an additional 7-days to August 18, 2015. Failure to comply by August 18, 2015 may result in Red Tagging of your 87-grade tanks or other enforcement. See inspector's comments below for additional information.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	23 CCR 16 2715 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715
Violation Description:	The owner/operator has failed to comply with one or more of the following: to maintain a copy of the designated operator monthly inspections for the last 12 months and/or maintain a list of trained employees on-site or off-site at a readily available location, if approved by the CUPA.
Violation Notes:	Returned to compliance on 08/01/2017. Training dates for Kimberly Rodriguez and Blanca Anaya are both noted as occurring almost a year prior to their reported hire dates. Ensure that information on list of employees trained by the DUSTO is accurate. (Note: Inform your DUSTO that annual line tightness testing is not required for this station and have them remove that reference from future monthly inspection reports.)
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146

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Site Name: ARCO 07097
Violation Date: 08-04-2015
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 08/01/2017. _____ This facility has failed to respond to Notice of Inspections conducted on 8/6/2014 & 8/5/2013. Copies of the 2013 & 2014 inspection reports were provided during today's inspection. _____
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description: Failure to obtain and maintain a valid operation permit from the CUPA.
Violation Notes: Returned to compliance on 08/01/2017. _____ This facility has failed to respond to Notice of Inspections conducted on 8/6/2014 & 8/5/2013. _____
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 08/01/2017. The Emergency Response Plan does not include the CUPA phone number [(408)918-3400]
Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
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 08/01/2017. 1) The Certification of Financial Responsibility submitted on CERS incorrectly states that the facility is required to demonstrate $1,000,000 per occurrence and $2,000,000 annual aggregate financial responsibility (Part A of form), but TECK, LLC owns three gas stations with far fewer than 101 tanks. Amend Part A to state that the facility is required to demonstrate

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$1,000,000 per occurrence and $1,000,000 annual aggregate. 2) Teck LLC identifies Liability Insurance policy [mechanism] number ACP 7223366816 (Coverage Period 5/29/2016-5/29/2017), but the Certificate of Liability Insurance available on-site for review identifies the insurance policy number as ACP7883366816. 3) A Certificate of Liability Insurance demonstrating coverage amounts of $2,000,000 per occurrence and $4,000,000 annual aggregate was available for review, but the copy of the policy does not have an endorsement worded as specified in 40CFR 280.97(b)(1) or a certificate of insurance worded as [Truncated]

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 01-18-2019
Citation: 23 CCR 16 2712(b)(1)(G) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(1)(G)
Violation Description: Failure to comply with one or more of the following overfill prevention equipment requirements: 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 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 Provide positive shut-off of flow to the tank when the tank is filled to no more than 95 percent of capacity; or 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. Install/retrofit overfill prevention equipment that does not use flow restrictors on vent piping to meet overfill prevention equipment requirements when the overfill prevention equipment is installed, repaired, or replaced on and after October 1,- 2018. For USTs installed before October 1, 2018, perform an inspection by October 13, 2018 and every 36 months thereafter. For USTs installed on and after October- 1,- 2018, perform an inspection at installation and every 36 months thereafter. Inspected within 30 days after a repair to the overfill prevention equipment. Inspected using an applicable manufacturer guidelines, industry codes, engineering standards, or a method approved by a professional engineer. Inspected by a certified UST service technician. Maintain records of overfill prevention equipment inspection for 36 months.
Violation Notes: Returned to compliance on 04/29/2019. Triennial overfill prevention testing performed on this date revealed that the fill limiters for the 91 tank and the diesel tank failed. Per the service technician, they are not properly installed and not properly functional because they have been installed to function at 97% tank capacity instead of the required 95% tank capacity.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22,

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	Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 08/01/2017. Approximately 28 gallons of water/gasoline mixture (liquid) and 50 pounds of absorbent contaminated with gasoline was observed on-site during inspection (greater than 100kg of hazardous waste), but neither the 55 gallon drum of absorbent contaminated with gasoline and the 55 gallon drum of "gasoline mixture" are identified with an initial accumulation date. Furthermore, the physical state of the gasoline mixture is not identified on the hazardous waste label.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	23 CCR 16 2632(d)(1)(C), 2641(h), 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(d)(1)(C), 2641(h), 2711(a)(8)
Violation Description:	Failure to submit or update a plot plan.
Violation Notes:	Returned to compliance on 08/01/2017. Several unrelated documents were submitted on CERS on 9/1/2014 as the UST Monitoring Site Plan and none were the UST Monitoring Site Plan. This is a repeat violation and has been elevated to a degree of Class II.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description:	Failure to obtain a valid permit to operate from the CUPA.
Violation Notes:	Returned to compliance on 08/01/2017. The facility is operating USTs without a permit from this office. The corporation that owns the property/USTs (TECK, LLC / Entity Number 200225510045) is listed in the California Secretary of State's database (http://kepler.sos.ca.gov/) as "SOS SUSPENDED". The most recent CERS submittal, dated 9/1/2014, list's the tank owner as "Masad Nicola, DBA TECH LLC". There is no record of this entity listed in the County's Fictitious Business Name database. This violation was noted during the 8/6/14 inspection and has been elevated to a degree of Class I.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

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Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 08/01/2017. _____ This facility has submitted on CERS an obsolete version of the Emergency Response/Contingency Plan. _____
Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.
Violation Notes: Returned to compliance on 08/01/2017. 87 ELLD failed testing yesterday. This violation appears to be uncorrected from 8/5/2013. THIS IS A SIGNIFICANT UST VIOLATION THAT SHALL BE CORRECTED WITHIN 7 DAYS. Failure to comply may result in Red Tagging of your 87 tanks or other enforcement action.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2016
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 08/01/2017. The facility has not submitted proof of implement corrective actions for the following inspection dates: 8/5/13, 8/6/14 and 8/4/15. Copies of previous inspections from this office were observed to be in the site’s Maintenance binder and pointed out to Mr. Asad Nicola during the inspection. This violation has been elevated to the degree of Class I due to being a chronic violation.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements:Monitor at least

BP 07097 (Continued) **1007091382**

hourly.Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.

Violation Notes: Returned to compliance on 08/01/2017. The 87-grade Veeder-Root electronic line leak detector (ELLD) failed to detect a 3 gallon per hour leak at 10 p.s.i. when tested during this inspection. With exception to a passing test result on 8/18/2016, after repairs were made in the presence of an HMCD inspector, the ELLD has never passed functional testing in the presence of an HMCD inspector and no passing test results have ever been submitted to HMCD. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORTS ISSUED ON 8/4/2016, 8/11/2015, 8/4/2015, 8/6/2014, and 8/5/2013 AND HAS BEEN ESCALATED TO A CLASS I VIOLATION. ALL CLASS I VIOLATIONS REQUIRE IMMEDIATE CORRECTIVE ACTION (WITHIN 7 DAYS). Failure to comply may result in Red Tagging of your 87 tanks.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: 23 CCR 16 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2711(a)(8)
Violation Description: Failure to submit, obtain approval, or maintain a complete/accurate plot plan.
Violation Notes: Returned to compliance on 08/01/2017. **This violation is being elevated to a Class II violation due to being a repeat violation.** Facility uploaded an obsolete UST Monitoring Plan as the UST Monitoring Site Plan.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 08/01/2017. This facility has failed to respond to Notice of Inspections conducted on 8/6/2014 & 8/5/2013. Copies of the 2013 & 2014 inspection reports were provided during today's inspection.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

BP 07097 (Continued) **1007091382**

Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 08/01/2017. 4/2/2013 CERS submittal Site Map does not show all required information (see below).
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	HSC 6.7 25284(a)(3)(A) & (B); - California Health and Safety Code, Chapter 6.7, Section(s) 25284(a)(3)(A) & (B);
Violation Description:	Failure to implement or maintain a written agreement between the UST permit holder and the operator (owner/operator agreement).
Violation Notes:	Returned to compliance on 08/01/2017. A copy of the tank owner (TECK, LLC) and the operator (Morgan Hill Fuels, LP) agreement was not available during the inspection.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2712(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(f)
Violation Description:	Failure to implement the corrections specified in the inspection report within 30 calendar days of receiving an inspection report from either the CUPA or special inspector.
Violation Notes:	Returned to compliance on 08/01/2017. The facility has not provided a written response with the corrective actions taken to violations cited in the Official Notice of Inspection Reports issued on 8/4/2016, 8/11/2015, 8/4/2015, 8/6/2014, and 8/5/2013. THIS IS A REPEAT, UNCORRECTED VIOLATION CITED IN THE OFFICIAL NOTICE OF INSPECTION REPORTS ISSUED ON 8/4/2016, 8/4/2015, AND 8/6/2014 AND REQUIRES IMMEDIATE CORRECTIVE ACTION. COPIES OF ALL INSPECTION REPORTS WILL BE PROVIDED IN DUPLICATE WITH THIS INSPECTION REPORT.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
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 site map with all required content.
Violation Notes:	Returned to compliance on 08/01/2017. The HMBP site map does not contain a north orientation and the location of emergency utility shut-offs, storm and sewer drains, and the hazardous materials handling/storage areas.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

BP 07097 (Continued) **1007091382**

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
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 09/05/2014. Form covering testing done on 8/5/2013 was not submitted. Scanned copy was obtained yesterday. No further corrective action is required.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes: Returned to compliance on 08/01/2017. The afternoon Manager, Israel Aras stated that he has not received training for hazardous waste.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-15-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: On site to witness annual monitoring certification performed by Elodio Sanchez of Getler-Ryan. Mr. Sanchez has current ICC Service Technician (exp 07/14/2020), Veeder Root TLS-3XX (exp. 07/05/2020), and Vaporless LDT-890 Tester (exp. 12/02/2020) certifications. Testing of the following components were witnessed during this inspection and passed: - STP sump 208 sensors activated an audible/visual alarm and provided positive shutdown when tested with water. - Under Dispenser Containment (UDC) 208 sensors activated an audible/visual alarm and provided positive shutdown when tested with water. - Liquid-filled annular 303 sensors activated an audible/visual alarm when float was placed in "high" and "low" liquid level positions. - Spill buckets were tested in accordance to PEI/RP 1200 standards for 60 minutes and confirmed to hold 5 gallons. - Electronic line leak detectors were confirmed to activate audible/visual alarm and positive shutdown upon simulation of 3 gph [Truncated]
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-18-2019

BP 07097 (Continued) **1007091382**

Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	A monitoring certification was performed today by Elodio Sanchez. All of his required certifications are current. System consists of 8 dispensers, a 20,000 gallon 87 tank, a two-compartment tank including a 10,000 gallon 91 tank, and a 12,000 gallon diesel tank, 3 turbine sumps, 3 fill sumps, 8 dispensers, and one vent box. The following electronic sensors provided an audible and visual alarm plus positive shut-down: Eight (8) UDC 208 sump sensors at the dispensers. Two (2) 302 hydrostatic annular sensors (87 tank, 91/diesel tank), each sensor providing a high and low alarm. Three (3) 208 fill sump sensors. One (1) 208 vent box sensor. All electronic components are to be tagged by the service technician. All three turbines provided positive shut down under conditions of failsafe and sensor out. Three (3) spill buckets passed their one hour lake tests. Three (3) line leak detectors properly functioned when tested at a leak rate of 3 gallons per hour and [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-12-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	NOTE TO FACILITY: Employees are provided with HMBP training and the training is documented and available for review for 2017 and 2016. ENSURE THAT ALL EMPLOYEES ARE PROVIDED WITH INITIAL AND ANNUAL REFRESHER HMBP TRAINING, THE TRAINING IS DOCUMENTED, AND THE TRAINING RECORDS ARE READILY AVAILABLE FOR REVIEW FOR THREE YEARS [HSC 25505(a)(4)]. On-site to conduct a routine hazardous materials business plan (HMBP) inspection. The following hazardous materials/wastes were observed on-site in HMBP reportable quantities: 1. Gasoline (Regular and Premium) 2. Hazardous Waste (Gasoline Mixture): 55 gallons 3. Liquid Carbon Dioxide: Approximately 20 gallons (Approximately 1400 cubic feet) NOTES: - CERS ID 10348117 - Most recent HMBP submittal: 3/6/2017 - The facility owner is the property owner. - This inspection started on 5/11/2017 and was completed along with the inspection report issuance on 5/12/2017.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-12-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	On-site to conduct a routine hazardous waste inspection. The facility is a gas station that handles Regular and Premium gasoline. Wastes routinely generated include UST system liquids from sumps, UDC pans, and spill buckets, metal-encased used fuel filters, absorbent contaminated or saturated with gasoline, and spent dispenser hoses and nozzles. The following hazardous waste containers were observed during inspection: - One 55 gallon drum labeled as "Gasoline Mixture:" empty at the beginning of inspection, but contained approximately 28 gallons of gasoline/water mixture at the end of inspection - One 55 gallon drum containing approximately 50 pounds of absorbent

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contaminated/saturated with gasoline NOTES: - CA EPA ID Number: CAL000332185 (ACTIVE) - Emergency procedures are posted. - Container areas are inspected weekly. - Fire extinguishers are marked with a current maintenance receipt. Spill control equipment is readily available. Emergency response equipment [Truncated]

Eval Division: Santa Clara County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: This inspection started on 5/11/2017 with the annual monitoring system certification and was completed along with the inspection report issuance on 5/12/2017.
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-19-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: On site for follow up testing of the 87 PLLD performed by Mr. Elodio Sanchez (certifications current) of Gettler-Ryan. The siphon jet valve on both the master and slave 87 turbines was replaced and the lines were purged of air. The PLLD was tested and detected a simulated 3 gph leak at 10 PSI, causing an audible and visible alarm and turbine shutdown. After closing the test leak the test was run again and the system returned to "All Functions Normal". Submit a copy of the Monitoring System Certification report for the PLLD retest to our office within 30 days and keep a copy available for review for at least 3 years. Reports may be sent via email to USTinspector@deh.sccgov.org.
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-22-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: On-site to observe 36-month testing for the UST secondary containment system. Today’s testing was completed Nik Zagorov, Service Technician with ECO-CHEK Compliance, Inc. Verified that Mr. Zagorov’s ICC and Mfg certifications were current. Site Configuration: 87-Master 87-Slave 91 8-UDCs Observed the following tests: --All UDCs and piping sumps filled with water to a level above the pressurized piping penetration and tested with a Caldwell accelerated liquid level system; ALL PASSED. All secondary piping piping tests were underway at the time of my departure. All tanks are hydrostatically monitored; exempt from secondary containment testing requirements. Provide a copy of the Secondary Containment Test Report by 6/22/17. Contact Ray Maiden at 408-918-1980 or by email at ray.maiden@cep.sccgov.org regarding this report.
Eval Division: Santa Clara County Environmental Health

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Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-11-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	On-site to conduct a UST inspection, including a review of UST documents. The functional testing was completed on 1/16/18 with the completion of construction activities associated with SR0854602. The anniversary month to complete future Annual Monitoring Certifications is JANUARY. The following documents were reviewed during today's inspection: UST employee training was conducted on 1/4/18, 2/21/18, 3/23/18, 4/24/18 and 5/15/18. UST financial responsibility using insurance policy #ST-1904230 valid from 1/1/18 to 1/1/19; policy certification is identical to 40 CFR 280.97 (b)(2). UST 5-yr permit is valid until 5/31/22. Secondary containment testing was completed on 5/22/17. CERS: Most recent submittal: 1/30/18; a copy of the CERS submittal was available on-site, including: Facility Information, Tank Information, Monitoring Plans, Response Plan, UST Financial Responsibility & Mechanism (Ins. Policy), UST site map and Owner/Operator [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-28-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	On-site to witness spill bucket test performed by Mr. Elodio Sanchez (certifications current) of Gettler-Ryan. 5 gallon Phil-Tite bucket installed on the 87-North fill. A Seraphin calibrated container used for 5 gallon measure. Spill bucket held water for one hour with no loss. PASS. This report constitutes final clearance of this project from HMCD only.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-04-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	**THIS IS A TIME SENSITIVE REPORT AND MUST BE GIVEN TO THE STATION OWNER/OPERATOR IMMEDIATELY.** On-site to observe the annual UST Monitoring Certification. The Service Technician that conducted all tests was Nik Zagorov from ECO-Chek Compliance; all required UST certifications were verified to be current. Verified that all equipment tested today matched equipment listed on the CERS submittal, dated 9/1/2014. There were no changes to the site's monitoring equipment during today's inspection. The 87 & 91 spill buckets were hydrostatically tested with 5-gallons of water for 60-minutes with no drop in liquid. ATG probes for all tanks were removed and the fuel floats raised to 90% to verify audible and visual alarm at the tank pad and monitoring panel. All UDC & STP sump sensors (794380-208) were tested with water and produced an audible and visual alarm at the

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	monitoring panel as well as positive shutdown of the turbines. All annular sensors (794380-302) [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-04-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Facility submitted their HMBP on CERS on 9-1-2014.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-04-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Verified that the site EPA ID Number: CAL000332185 is active. Reviewed manifest (1) that had matched copies.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-04-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	The inspection began on 8/2/16 and concluded on 8/4/16 with the email delivery of this report to Masad Nicola (UST Owner), since he resides out of state. Mr. Albert Wolff for DEH-HMCD was present during the functional testing on 8/2/16. On-site to observe the annual UST Monitoring Certification. The Service Technician that conducted all tests was Nik Zagorov from ECO-CHEK Compliance, Inc., all required UST certifications were verified to be current. Verified that all equipment tested today matched equipment listed on the CERS submittal, dated 9/1/2014. All spill buckets were hydrostatically tested with 5-gallons of water for 60-minutes with no drop in liquid, except as noted above All tanks utilize ATG probe for overfill monitoring. Each ATG probe was removed from their respective tank and the fuel float was raise until the interior & exterior audible and visual alarms activated; both probes activated at 90%. All STP sump sensors were tested with water and [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-05-2013
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	FACILITY HMBP WAS SUBMITTED VIA CERS ON 4/5/13.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

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Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-05-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	DISPOSAL RECEIPTS WERE REMOVED FROM THE SITE ON 7/30/13 BY STATE BOARD OF EQUALIZATION, AGENT T. SCHMIDT 916-995-6457. FACILITY MUST CONTACT RAY MAIDEN AT 408-918-1980 ONCE THE RECORDS ARE RETURNED SO THAT A RECORDS INSPECTION CAN BE COMPLETED. THE COUNTY OFFERS FREE HAZARDOUS WASTE CLASSES, CONTACT 408-918-3400 TO SIGN-UP FOR THE NEXT AVAILABLE HAZARDOUS WASTE MANAGEMENT CLASS.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-05-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	THE ANNUAL MONITORING CERTIFICATION WAS COMPLETED BY NIK ZAGOROV FROM ECO-CHEK, ALL CERTIFICATIONS WERE VERIFIED AND CURRENT. ALL DOCUMENTS INCLUDING MONTHLY D.O. REPORTS, TRAINING RECORDS, FINANCIAL RESPONSIBILITY, PAST TEST RESULTS, ETC WERE REMOVED FROM THE SITE ON 7/30/13 BY STATE BOARD OF EQUALIZATION, AGENT T. SCHMIDT 916-995-6457. SYSTEM SETUP: SOFTWARE VERSION 329.01 VEEDER-ROOT TLS-350 TANK IDG S T-1: 87-GRADE (MAIN) T-2: 87-GRADE (AUX) T-3: 91-GRADE LIQUID SENSORS: L-1: 87-MAIN ANNULAR (V/R 794380-302) (HIGH/LOW) L-2: 87-MAIN FILL (V/R 794380-208) L-3: 87-MAIN STP (V/R 794380-208) L-4: 87-AUX & 91-GRADE ANNULAR (V/R 794380-302) (HIGH/LOW) L-5: 91-GRADE STP (V/R 794380-208) L-6: 91-GRADE FILL (V/R 794380-208) L-7: 87-AUX FILL (V/R 794380-208) L-8: 87-AUX STP (V/R 794380-208) L-9: DISP 1-2 (V/R 794380-208) L-10: DISP 3-4 (V/R 794380-208) L-11: DISP 5-6 (V/R 794380-208) L-12: DISP 7-8 (V/R 794380-208) L-13: DISP 9-10 (V/R [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-06-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Inspection began yesterday and concluded today.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-06-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Inspection began yesterday and concluded today.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-06-2014

BP 07097 (Continued) **1007091382**

Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Inspection began yesterday and concluded today. All UST system leak detection equipment was tested yesterday by by UST Service Technician Nik Zagorov of Eco-Chek Compliance and functioned properly except as noted above. Mr. Zagorov has current ICC UST Service Technician certification (exp. 5/30/2015), Veeder-Root Level 4 certification (exp. 12/13/2014), and Vaporless Manufacturing (VMI) LDT-890 certification (exp. 3/19/2016). Both Model 794380-301 hydrostatic annular sensors were tested by raising them out of the tank interstitial fluid, then inverting them to obtain both low-liquid and high-liquid alarms. Six sump bottom (3 STP & and 8 UDC bottom Model 794380-208 liquid sensors were tested using water to obtain fuel alarms. Fail safe turbine shutdown was confirmed for the submersible turbine pump (STP) sump sensors (system is programmed to shut down for all leak alarms). Shut-down is initiated via the ELLD rather than via relay initiated shut-down. System setup [Truncated]
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-09-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: I met with Mr. Nicola to review the most current UST inspection report as well as Notices of Inspection from 8/4/15, 8/6/14 and 8/5/13. We went over each violation in detail and I explained that a UST permit from this office cannot be issued due to the number and degree of the violations cited. I assisted Mr. Nicola with California Environmental Reporting System (CERS). We went through each UST section and corrected errors regarding ownership, primary and secondary contacts and UST installation dates. I made Mr. Nicola aware of the County's CERS Lead User Authorization form to control access to his facility and a copy of the form will be sent via email. I explained the issue with the importance of attention to detail with not interchanging the UST owner company (TECK, LLC) and the operator (Morgan Hill Fuel, L.P.). Mr. Nicola presented a copy of his Owner / Operator agreement but it did not meet the requirements noted in violation T024. I reviewed the renewed [Truncated]
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-11-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: **THIS IS A TIME SENSITIVE REPORT AND MUST BE GIVEN TO THE STATION OWNER/OPERATOR IMMEDIATELY.** Observed the repair and retesting of the 87-grade Electronic Line Leak Detector. The repairs and retesting was completed by Service Technician, Tracey Thornbrugh from Stroupe Petroleum Maintenance, Inc. Mr. ThornbrughG s certifications included: ICC 5260151 exp: 6/1/2017, Veeder-Root A31557 exp.: 2/2/2016 and VMI LDT-890 #2437 exp: 8/8/15. The repairs to the 87-grade system included the replacement of siphon jet fittings on both the primary and auxiliary turbines. The filter on the transducer on the auxiliary

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turbine was 75% blocked by particulates. The particulates were removed and the line was retested using a VMI LDT-890 tester. A new PLLD was installed. Approximately, 60-gallons of fuel was pumped to purge entrapped air. The VMI tester was calibrated on 4/25/2014. The new PLLD on the 87-grade was tested using a VMI LDT-890 test system to simulate a 3-gallon [Truncated]

Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: **THIS IS A TIME SENSITIVE REPORT AND MUST BE GIVEN TO THE STATION OWNER/OPERATOR IMMEDIATELY.** Observed the functional testing of the 87-grade PLLD. TodayG s test was a follow-up to the inspection on August 11, 2015. The significant violation noted for violation code T-372 was corrected on August 18, 2015. Testing was completed by Service Technician, Tracey Thornbrugh from Stroupe Petroleum Maintenance, Inc. Mr. ThornbrughG s certifications included: ICC 5260151 exp: 6/1/2017, Veeder-Root A31557 exp.: 2/2/2016 and VMI LDT-890 #2437 exp: 8/11/17. The VMI tester was calibrated on 4/25/2014. The new PLLD on the 87-grade was tested using a VMI LDT-890 test system to simulate a 3-gallon per hour leak at 10-psi. The new 87-grade PLLD leak detector produced a PLLD alarm at the monitoring panel (date stamp of the 87-PLLD: August 18, 2015 at 10:43 am). Contact Ray Maiden at 408-918-1980 or by email at ray.maiden@deh.sccgov.org regarding this report. Provide a [Truncated]

Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: On-site to witness the functional testing of the 87-ELLD for functionality. The Service Technician that conducted today’s testing was Nik Zagorov from ECO-CHEK Compliance, Inc. Mr. Zagorov’s ICC and Mfg certifications were verified to be current. Mr. Zagorov tested the electronic line leak detector (ELLD) for 87-grade at dispenser 14. The 87-ELLD functioned as required when tested with a VMI LDT-890 tester that was calibrated to simulate a leak of 3-gallon per hour at 10-psi. The 87-ELLD detected the leak and went into shutdown mode as required. The device that controls the alternation between the 87-turbines is a separate logic controller then that of the Veeder-Root Automatic Tank Gauge (ATG) system. Given that the independent controller is not connected to the inventory monitoring (Veeder-Root) of the tanks, if either of the 87-tanks is allowed to go below a tank level where the turbine looses suction a repeat condition may occur. The 7-day Significant [Truncated]

Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown

BP 07097 (Continued) **1007091382**

Eval Date: 08-18-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: On-site to witness the hydrostatic testing of a Phil-Tite 85100 spill bucket for the 87-1 fill. The contractor of record for the installation was ECO-CHEK Compliance, Inc. and the Service Technician was Mr. Nik Zagorov, ICC: 8358231, Service Technician exp: 5/21/2017. Confirmed that a copy of the County's approval letter for this repair was on-site as required. The spill bucket was filled above the cap and to the rim of water (>5-gallons) for 60 minutes with no liquid loss; PASS. The spill bucket is approved to be used as it was designed. Provide this office with a copy of a completed "Spill Bucket Testing Report Form" by September 10, 2016.
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Enforcement Action:
Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-04-2015
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: Santa Clara County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-04-2015
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: Santa Clara County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-04-2015
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: Santa Clara County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

BP 07097 (Continued) **1007091382**

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-05-2013
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: Santa Clara County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-05-2013
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: Santa Clara County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-06-2014
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: Santa Clara County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-06-2014
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: Santa Clara County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037

BP 07097 (Continued) **1007091382**

Enf Action Date: 08-06-2014
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: Santa Clara County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-11-2015
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: Santa Clara County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Coordinates:
Site ID: 50146
Facility Name: ARCO 07097
Env Int Type Code: HWG
Program ID: 10348117
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.144340
Longitude: -121.664980

Affiliation:
Affiliation Type Desc: Parent Corporation
Entity Name: BP PRODUCTS NORTH AMERICA, INC.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: Masad Nicola
Entity Title: Owner / Operator
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (503) 680-0033

Affiliation Type Desc: CUPA District
Entity Name: Santa Clara County Environmental Health
Entity Title: Not reported
Affiliation Address: 1555 Berger Drive, Suite 300

BP 07097 (Continued) **1007091382**

Affiliation City:	San Jose
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95112-2716
Affiliation Phone:	(408) 918-3400
Affiliation Type Desc:	Identification Signer
Entity Name:	KIMBERLY MEDICUS
Entity Title:	RETAIL COMPLIANCE COORDINATOR
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	BP PRODUCTS NORTH AMERICA, INC
Entity Title:	Not reported
Affiliation Address:	PO BOX 6038
Affiliation City:	ARTESIA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90702
Affiliation Phone:	(360) 970-2296
Affiliation Type Desc:	Property Owner
Entity Name:	BP PRODUCTS NORTH AMERICA, INC
Entity Title:	Not reported
Affiliation Address:	PO BOX 6038
Affiliation City:	ARTESIA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90702
Affiliation Phone:	(360) 970-2296
Affiliation Type Desc:	Environmental Contact
Entity Name:	KIMBERLY MEDICUS, RETAIL COMPLIANCE COORDINATOR
Entity Title:	Not reported
Affiliation Address:	PO BOX 6038
Affiliation City:	ARTESIA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90702
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	PO BOX 6038
Affiliation City:	ARTESIA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90702
Affiliation Phone:	Not reported
Affiliation Type Desc:	UST Tank Operator

BP 07097 (Continued) **1007091382**

Entity Name: MSCO VISIONS OF SUCCESS, INC ARCO 7097
Entity Title: Not reported
Affiliation Address: 18605 MONTEREY RD
Affiliation City: MORGAN HILL
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95037
Affiliation Phone: (408) 778-0329

Affiliation Type Desc: UST Tank Owner
Entity Name: BP PRODUCTS NORTH AMERICA, INC
Entity Title: Not reported
Affiliation Address: 18605 MONTEREY RD
Affiliation City: MORGAN HILL
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95037
Affiliation Phone: (360) 970-2296

Affiliation Type Desc: Document Preparer
Entity Name: BELSHIRE ENVIRONMENTAL SERVICES, INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: MSCO VISIONS OF SUCCESS, INC ARCO 7097
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: (503) 680-0033

Affiliation Type Desc: UST Property Owner Name
Entity Name: BP PRODUCTS NORTH AMERICA, INC
Entity Title: Not reported
Affiliation Address: 18605 MONTEREY RD
Affiliation City: MORGAN HILL
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95037
Affiliation Phone: (360) 970-2296

CERS TANKS:
Name: ARCO 07097
Address: 18605 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Site ID: 50146
CERS ID: 10348117
CERS Description: Underground Storage Tank

BP 07097 (Continued) **1007091382**

Violations:

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
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 08/01/2017. The following routinely handled hazardous materials were observed on-site in HMBP reporting thresholds: - hazardous waste, liquid (gasoline/water mixture) - liquid carbon dioxide
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
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 08/01/2017. The facility has not provided a written response with the corrective actions taken for violations issued in the Official Notice of Inspection Reports issued on 8/4/2015, 8/6/2014, and 8/5/2013. THIS UNCORRECTED VIOLATION HAS BEEN ESCALATED TO A CLASS I VIOLATION AND REQUIRES IMMEDIATE CORRECTIVE ACTION.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes:	Returned to compliance on 08/01/2017. Violation remains uncorrected from 8/5/2013.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h)
Violation Description:	Failure to have an approved UST Response Plan.
Violation Notes:	Returned to compliance on 08/01/2017. The UST Response Plan identifies employee Noemi Mendez as a Responsible Person for Authorizing Any Work on the UST systems, but Ms. Mendez is no longer an employee at this facility. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF

BP 07097 (Continued) **1007091382**

INSPECTION REPORT ISSUED ON 8/4/2016 AND HAS BEEN ESCALATED TO A CLASS II VIOLATION.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 23 CCR 16 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2711(a)(8)
Violation Description: Failure to submit, obtain approval, or maintain a complete/accurate plot plan.
Violation Notes: Returned to compliance on 08/01/2017. 4/2/2013 CERS submittal did not include a monitoring Site Plan. Upload the 4/2/2013 HMBP Site Map as the Monitoring Site Plan since it contains the required information. Do not upload PDF copies of obsolete UST Monitoring Plan forms.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description: Failure to maintain on site an approved monitoring plan.
Violation Notes: Returned to compliance on 08/01/2017. Plans submitted via CERS contain errors. See CERS regulator comments.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
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 08/01/2017. Dispenser fuel filters currently in use are marked with an installation date of 1/27/2017, no used fuel filters were observed on-site, and per a manifest review "hazardous waste, solids contaminated with benzene" have not been disposed of since 2014. No records of the used fuel filter’s transfer, as outlined below, from the past 3 years are available for review.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/01/2017. No written response has been

BP 07097 (Continued) **1007091382**

submitted for 8/5/2013 Notice to Comply.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 08/01/2017. No training records other than DUSTO training.
Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11
Violation Description: Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method.
Violation Notes: Returned to compliance on 08/01/2017. 1) Three one gallon containers that appear to contain used oil were observed next to the trash dumpsters behind the facility. Determine the contents of the containers and if they meet hazardous waste criteria or the definition of "used oil." If determined to be hazardous waste or used oil, collect and manage as hazardous waste. Provide documentation of the hazardous waste determination to HMCD for review. 2) Per the 2/23/2017 DUSTO Inspection Report, liquid was removed from the 91 STP sump by "Station Personnel" and per the 1/30/2017 DUSTO Inspection Report, liquid was removed from UDC 3/4 and the 91 STP sump "by Owner," but no liquid was observed to be accumulating on-site during inspection and no Uniform Hazardous Waste Manifest identifies liquid hazardous waste since 3/10/2016. Liquid removed from the UST system may meet hazardous waste criteria (e.g. ignitability, toxicity) and a hazardous waste determination must be conducted prior to its disposal. It is of note [Truncated]
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 23 CCR 16 2715(c) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(c)
Violation Description: Failure to comply with one or more of the following designated operator (DO) monthly inspection requirements: Be performed by an ICC certified DO. Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy. Inspect for the presence of liquid/debris in spill containers. Inspect

BP 07097 (Continued) **1007091382**

for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly. Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit. Check that all testing and maintenance has been completed and documented. Verify that all facility employees have been properly trained.

Violation Notes: Returned to compliance on 08/01/2017. The DUSTO Monthly Inspection Reports from the following dates do not demonstrate that the DUSTO inspected all required elements: - 4/27/2017: Report states that line tightness testing was completed on 4/27/2017, but the facility does not conduct line tightness testing. - 3/27/2017: Report states that line tightness testing was completed on 3/27/2017, but the facility does not conduct line tightness testing. - 2/23/2017: Report states that line tightness testing was completed on 2/23/2017, but the facility does not conduct line tightness testing. - 1/30/2017: Report states that line tightness testing was completed on 1/30/2017, but the facility does not conduct line tightness testing. - 9/30/2016: Report states that line tightness testing was completed on 9/30/2016, but the facility does not conduct line tightness testing. - 8/26/2016: Report states that sensors located in tank top, buried, or non-readily accessible containment areas have not alarmed in the past [Truncated]
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
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 08/01/2017. **This is a repeat violation.** The UST insurance policy (G24785610-001) expired 3/26/2015. Certification of Financial Responsibility submitted to CERS on 9/1/2014 does not list a coverage period (beginning - ending)
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 08/01/2017. No written response has been submitted for 8/5/2013 Notice to Comply.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017

BP 07097 (Continued) **1007091382**

Citation:	23 CCR 16 2632(d)(1)(C), 2641(h), 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(d)(1)(C), 2641(h), 2711(a)(8)
Violation Description:	Failure to submit or update a plot plan.
Violation Notes:	Returned to compliance on 08/01/2017. The UST Monitoring Site Plan does not include the piping layouts for all three UST systems.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
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 08/01/2017. The Certificate of Financial Responsibility, dated 8/29/2014 and submitted on CERS on 9/1/2014 was signed by Asad Nicola / Operator and witnessed by Mark Fajardin, SR. The form list's the incorrect business name (TECH, LLC) the correct business name is (TECK, LLC). The mechanism selected is "Pollution Insurance" and the box for Coverage Period is incorrect for not listing the dates when coverage begins and ends. The insurance policy #G24793175001, coverage period (7/31/15 - 7/31/16), Producer RAM Commercial Services 408-776-2800 was expired and did not list TECK, LLC as the insured. The policy listed Morgan Hill Fuel, LLC as the insured. The copy of the policy did not contain any endorsement language for meeting the requirements of 40 CFR 280.97.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2638(d) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638(d)
Violation Description:	Failure to submit the Annual Monitoring System Certification Form to the CUPA within 30 days of completion of the test.
Violation Notes:	Returned to compliance on 08/01/2017. 1) The 8/2/2016 Monitoring System Certification and spill bucket testing results has not been submitted to HMCD. 2) The 87-main (South) fill spill bucket that failed hydrostatic testing on 8/2/2016 was replaced on 8/18/2016 with an HMCD inspector present and the repair was approved under an HMCD permit. However, a copy of the spill bucket test result was not submitted to HMCD within 30 days as required and as instructed in the Official Notice of Inspection Report issued on 8/18/2016.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-05-2013
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

BP 07097 (Continued) **1007091382**

Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 08/01/2017. OBSERVED 1-55 GALLON CLOSED TOP AND 1-55 GALLON OPEN TOP DRUMS BOTH MARKED WITH A HAZARDOUS WASTE LABEL; HOWEVER ALL REQUIRED INFORMATION WAS SUN FADED AND NOT LEGIBLE. NEW HAZARDOUS WASTE LABELS WERE PROVIDED.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to have a UST Response Plan available on site.
Violation Notes:	Returned to compliance on 08/01/2017. The Response Plan submitted via CERS on 9/1/2014 is not current as Ms. Noemi Mendez is no longer employed at this facility.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	22 CCR 12 66262.23(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)
Violation Description:	Failure to properly complete the Uniform Hazardous Waste Manifest.
Violation Notes:	Returned to compliance on 08/01/2017. 1) Manifest #008722358FLE (Ship Date: 3/10/2016) identifies a hazardous waste as "Gasoline Mixture, 3, PG II," but only identifies the waste with State waste code 134. Pursuant to 22CCR 66261.20(b) and 22CCR 66261.21(b), hazardous wastes meeting ignitability criteria must be identified by EPA Hazardous Waste Number D001 on manifests. 2) Manifest #007626297FLE (Ship Date 9/9/2014) identifies a hazardous waste as "non-RCRA hazardous waste, solid (ERG #171)" in Box 9b. Non-RCRA hazardous wastes must be identified either as "non-RCRA hazardous waste, solid" or "non-RCRA hazardous waste, liquid" and described by a name from Appendix X or if not included in Appendix X, a commonly recognized industrial name must be used (e.g. used oil) [22CCR 66262.23(a)(5)(A)}. Furthermore, DTSC Guidance Letter "Manifest Regulations Frequently Asked Questions (by Box # on the manifest form)" states "Box 9b should not be used for adding density of waste, specific gravity, profile information, [Truncated]
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description:	Failure of the line leak detector (LLD) monitoring pressurized piping

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to meet one or more of the following requirements:Monitor at least hourly.Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.

Violation Notes: Returned to compliance on 08/01/2017. The 87-grade PLLD failed to detect a simulated leak when tested. This same PLLD failed during the 2015 annual test and required repairs. This is a SIGNIFICANT VIOLATION THAT SHALL BE CORRECTED IN 7-DAYS. Failure to comply may result in enforcement action by this office.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description: Failure to comply with one or more of the following: failure to install a spill bucket, have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container, and/or be resistant to galvanic corrosion.
Violation Notes: Returned to compliance on 08/01/2017. The 2 tank fill spill buckets on the 87 Master tank were missing the gaskets that seal the lower bucket to the containment extension attached to the manway lid, thus limiting their liquid capacity. Replacement of the gaskets and testing of those buckets was still pending at the end of the site visit portion of this inspection yesterday. Testing of the buckets had to be done one at a time since all fill caps are missing their gaskets and testing was done using a single cap provided by Eco-Chek. All caps must be replaced with caps having gaskets.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 08/01/2017.

Observed 1x55-gallon drum marked as waste gasoline and water that did not have the Accumulation Start Date.

Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22,

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	Chapter 12, Section(s) 66262.34(d)
Violation Description:	Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.
Violation Notes:	Returned to compliance on 08/01/2017. Accumulation start date on 55 gallon drum holding used absorbant, dispenser hose, and gasoline filters is 8/10/2010.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description:	Failure to obtain and maintain a valid operation permit from the CUPA.
Violation Notes:	Returned to compliance on 08/01/2017. 5-Year permit issued by Santa Clara County Fire Department on 1/1/2010 does not show the name of the requested permit holder (UST owner Morgan Hill Fuel LP).
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 08/01/2017. Property Owner is not correct. Property records show owner is Teck LLC. If Morgan Hill Fuel LP is the operator of the facility, report that name as Business Operator. See CERS regulator comments.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h)
Violation Description:	Failure to have an approved UST Monitoring Plan.
Violation Notes:	Returned to compliance on 08/01/2017. The UST Monitoring Plans for the Regular Main UST system (T1) and Premium UST system (T3) identify employee Noemi Mendez as the Second Person Having Responsibility for the UST systems, but Ms. Mendez is no longer an employee at this facility. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORT ISSUED ON 8/4/2016 AND HAS BEEN ESCALATED TO A CLASS II VIOLATION.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146

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Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description:	Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.
Violation Notes:	Returned to compliance on 08/01/2017. CERS data contains errors. Refer to regulator comments on CERS.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description:	Failure to obtain a valid permit to operate from the CUPA.
Violation Notes:	Returned to compliance on 08/01/2017. The facility does not have a UST Permit to Operate. Correct all open violations and provide a written response with the corrective actions taken for each violation and a signed Certification of Compliance to HMCD. A Permit to Operate will be issued upon verification that the facility has returned to full compliance. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORTS ISSUED ON 8/4/2016 (CLASS I) AND 8/6/2014 (CLASS II) AND REQUIRES IMMEDIATE CORRECTIVE ACTIONS TO BE TAKEN.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	HSC 6.7 25293 - California Health and Safety Code, Chapter 6.7, Section(s) 25293
Violation Description:	Failure to maintain UST records of monitoring, testing, repairing, and closure in sufficient detail to enable the CUPA to determine whether the UST systems are in compliance.
Violation Notes:	Returned to compliance on 08/01/2017. An HMCD inspector was on-site on 8/18/2016 to witness the functional testing of the 87-grade electronic line leak detector (ELLD), but due to the repetitive nature of the ELLD failing functional testing, the inspector requested that the following information be submitted to HMCD within 30 days (9/18/2016) to demonstrate functionality of the 87-grade ELLD and that the 87-grade UST systems are in compliance: - "A written procedure and proof of training of all employees that ensures the 87-grade turbines will not loose suction due to a low fuel level. It is recommended that in-lieu of procedures & training (administrative controls) that the Veeder-Root be programmed (engineering controls) to shutdown the turbines at a known fuel level that prevents the introduction of air into the 87-piping loop" - "Confirmation that a copy of the wiring diagram and description of operation that is specific to this station (integration with the Veeder-Root monitoring panel) has been [Truncated]
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS

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Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 08/01/2017. _____ The afternoon Manager, Israel Aras has not received training for hazardous waste. _____
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Description:	Failure to comply with one or more of the following: conduct secondary containment testing, within six months of installation and every 36 months thereafter, conducted in accordance with proper practices, protocols, or test methods.
Violation Notes:	Returned to compliance on 08/01/2017. Testing was due in April of this year but was done until 6/3/2014. Ensure that next round of testing is done in April of 2017 and every 36 months thereafter as required.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	22 CCR 11 66261.7 - California Code of Regulations, Title 22, Chapter 11, Section(s) 66261.7
Violation Description:	Failure to manage empty containers greater than 5 gallons in capacity that previously held a hazardous material/waste in accordance with 22 CCR 11 66261.7 including but not limited to the following: (e)(2)By reclaiming its scrap value onsite or shipping the container or inner liner to a person who reclaims its scrap value; or (3) By reconditioning or remanufacturing the container or inner liner onsite for subsequent reuse, or shipping the container or inner liner to a person who reconditions or remanufactures the container or inner liner; or (4) By shipping the container or inner liner to a supplier or to another intermediate collection location for accumulation prior to managing the container or inner liner pursuant to subsections (e)(2) or (e)(3) of this section; or (i) By shipping the container or inner liner back to the supplier for the purpose of being refilled. (f) A container or an inner liner removed from a container larger than five gallons in capacity which is managed pursuant to subsection (e) of this section shall be marked with the date it has been emptied and shall be managed within one year of being emptied.
Violation Notes:	Returned to compliance on 08/01/2017. One 1 gallon container of Lotion Hand Soap containing approximately 8 ounces of soap was observed in the facility's trash dumpster. Containers 5 gallons in size or smaller

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	that formerly held a hazardous material or hazardous waste must be completely empty of all pourable and scrapable contents prior to disposal.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-05-2013
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes:	Returned to compliance on 08/01/2017. BY THE VIOLATIONS NOTED ABOVE, FACILITY PERSONNEL ARE NOT CONDUCTING WEEKLY HAZARDOUS WASTE CONTAINER AREA INSPECTION.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-05-2013
Citation:	23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description:	Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.
Violation Notes:	Returned to compliance on 08/01/2017. PLLD (Q1) FOR THE 87-GRADE FAILED TO DETECT A SIMULATED LEAK OF 3-GALLONS PER HOUR AT 10-PSI. THIS VIOLATION MUST BE CORRECTED BY 9/5/13. THIS OFFICE WILL NOT ACCEPT TEST RESULTS FOR Q1 PLLD (87-GRADE) UNLESS THE FUNCTIONAL TEST IS WITNESSED BY THIS OFFICE. CONTACT RAY MAIDEN AT 408-918-1980 TO WITNESS THE RETESTING OF Q1 PLLD. IN SPEAKING WITH THE TECHNICIAN (NIC ZAGOROV FROM ECO-CHEK) THIS SAME PLLD FAILED LAST YEAR. THE LINE LENGH WAS ESTIMATED TO BE 245 FT; HOWEVER, THE PLLD PROGRAM IS SET AT 175 FT.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 08/01/2017. 4/2/2013 CERS submittal only contains 2 pages of the Unidocs Emergency Response/Contingency Plan. Upload all pages of the plan (5/11 through 7/11) as a single PDF file.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

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Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description:	Failure to comply with one or more of the following: Failure to install or maintain a liquid-tight spill bucket. Have a minimum capacity of five gallons. Have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container. Be resistant to galvanic corrosion.
Violation Notes:	Returned to compliance on 08/01/2017. The 87-grade spill bucket failed the 5-gallon 60-minute hydrostatic test.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description:	Failure to maintain records of repairs, lining, and upgrades on site, or off site if approved by the CUPA, for the life of the UST.
Violation Notes:	Returned to compliance on 08/01/2017. On the DUSTO Monthly Visual Inspection report dated, 5/25/16 the DUSTO (Mark Fajardin, Sr.) noted that the "Veeder-Root printer is currently down & cannot check alarm history". There was no maintenance record documenting the repair of the printer. On the DUSTO Monthly Visual Inspection report dated, 7/27/16 the DUSTO (Mark Fajardin, Sr.) noted the cause of the alarms noted on 7/15/16 and 7/16/16 were from an "upgrade of a site controller". The DUSTO noted the source of the information was from Mr. Asad Nicola, Station Manager. I spoke to Mr. Nicola on 8/2/16 during the inspection and he did not recall making that statement and that he had no idea what caused the alarms in July. The source of the alarms remains unresolved and requires investigation. See additional comments below regarding this DUSTO report & PLLD alarms. This violation have been elevated to a Class II violation due to the number of sensors involved (9-Liquid Sensors & 2-PLLDs) and the total number of [Truncated]
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2641(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(a)
Violation Description:	Failure of leak detection equipment to be located such that equipment is capable of detecting a leak at the earliest possible opportunity.
Violation Notes:	Returned to compliance on 08/01/2017. 1) The test boot on one of two product piping lines in the 87-auxiliary STP sump was observed to be on and the schrader valve was observed in the "12 o'clock position." 2) The test boot on the product piping line in the 91-grade STP sump was observed to be on and the schrader valve was observed to be in the "2 o'clock position." The 87-auxiliary test boot was rotated to a "6 o'clock position" and the 91-grade test boot was pulled back to allow

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any leaks in the product piping to be monitored at the earliest opportunity. This violation was corrected at the time of inspection. NO FURTHER ACTION IS NEEDED.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2016
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 08/01/2017. The UST Facility Operating Permit Application submitted to CERS on 9/1/14 has selected State Fund / CD as the Financial Responsibility mechanism, which is inconsistent with the Certification of Financial Responsibility, dated 8/29/14. Tank information submitted on CERS on 9/1/2014 is incomplete as the date of installation for all USTs was not completed. This is a repeat violation as it was also noted on the 8/6/14 inspection report; elevated to a degree of Class II.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes: Returned to compliance on 08/01/2017. Violation remains uncorrected from 8/5/2013.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description: Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.
Violation Notes: Returned to compliance on 08/01/2017.

UST

Facility Information that was submitted on CERS on 9/1/2014 lists both CD and insurance policy neither of which could be verified during today's inspection.

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097

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Violation Date: 05-12-2017
Citation: 23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Description: Failure to conduct secondary containment testing, or one or more of the following requirements: Perform the test within six months of installation and every 36 months thereafter.Use a procedure that demonstrates the system works as well as at installation.Use applicable manufacturer guidelines, industry codes, engineering standard, or professional engineer approval.Performed by a certified service technician or a licensed tank tester.
Violation Notes: Returned to compliance on 08/01/2017. All UST systems' secondary containment (SB989) testing was due in April of this year (2017), but has not been conducted as of today's inspection (5/11/2017). It is of note that the DUSTO Monthly Inspection Reports all state "SB989 ANNIVERSARY IS APRIL 2014" and the Official Notice of Inspection Reports issued on 8/4/2016, 8/4/2015, and 8/6/2014 remind the facility that SB989 testing is due April 2017. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORT ISSUED ON 8/6/2014 AND REQUIRES IMMEDIATE CORRECTIVE ACTION.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.
Violation Notes: Returned to compliance on 08/01/2017.
_____ The 87-Grade electronic line leak detector failed the required test during today's inspection. It appears that this same violation occurred during UST Monitoring Certifications on 8/6/2014 & 8/5/2013. **THIS IS A SIGNIFICANT UST VIOLATION THAT SHALL BE CORRECTED WITHIN 7-DAYS (BY AUGUST 11, 2015).** Failure to comply by August 11, 2015 may result in Red Tagging of your 87-grade tanks or other enforcement.
_____
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/01/2017. Facility failed to respond to a notice to comply with the actions taken to correct each violation cited in the inspection report. -- An HMBP inspection was conducted and Official Notice of Inspection (NOI) with violations that require corrective action was delivered on 8/6/2014 and 8/4/2015. As of

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5/11/2017, the facility has not provided a written response with the corrective actions taken for each violation. -- A person who receives an inspection report detailing a violation shall have not more than 30 days from the date of the report issuance to provide HMCD with a statement documenting corrective actions taken or dispute the existence of the violation. Within five working days of correcting the violation, the person cited or an authorized representative shall sign the report, certifying that any violation has been corrected, and return the notice to HMCD [HSC 25404.2(b), 25404.1.2(c)(1)].

Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain and/or maintain an Active EPA ID.
Violation Notes: Returned to compliance on 08/01/2017. EPA ID #CAL000332185 has been inactive since 6/30/2012.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description: Failure to comply with one or more of the following: Failure to install or maintain a liquid-tight spill bucket. Have a minimum capacity of five gallons. Have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container. Be resistant to galvanic corrosion.
Violation Notes: Returned to compliance on 08/01/2017. The 87-Main North fill spill bucket failed the 5 gallon, 60 minute hydrostatic test today.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-05-2013
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16
Violation Description: Failure to provide employees within the first six months after the date of their employment, or assignment to the facility, or to work unsupervised, or to a new position at a facility with hazardous waste training to ensure employees are competent in the following areas: hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, emergency response and emergency equipment, and procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. In addition, the owner/operator shall ensure facility personnel take part in an annual review of the initial training and training records training records on current personnel shall be kept

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until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 08/01/2017. BY THE VIOLATIONS NOTED ABOVE, FACILITY PERSONNEL ARE NOT THROUGHLY FAMILIAR WITH REQUIREMENT FOR MANAGING HAZARDOUS WASTE.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
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 08/01/2017. Current insurance policy number and issuer information are different from information shown on Certification of Financial Responsibility (CFR) form submitted via CERS. CFR form does not specify insurance policy period dates and has no date for witness signature. Form states that financial responsibility is being demonstrated by Teck LLC and insurance policy shows name of insured as Teck LLC. Teck LLC is the property owner, but according to submitted UST permit application information, Teck LLC is neither the UST owner nor UST operator. Financial responsibility must be demonstrated by the UST owner or operator.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes: Returned to compliance on 08/01/2017. Drum of hazardous waste liquid was reportedly shipped within the past week, but facility has no manifest copy.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2016
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description: Failure to have a UST Monitoring Plan available on site.

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Violation Notes:	Returned to compliance on 08/01/2017. All UST Monitoring Plans list employee Noemi Mendez as the Second Person Having Responsibility for the USTs. Ms. Noemi Mendez is no longer employed at this facility.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-11-2015
Citation:	23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description:	Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.
Violation Notes:	Returned to compliance on 08/18/2015. **THIS IS A SIGNIFICANT UST VIOLATION SHALL BE CORRECTED WITHIN 7-DAYS (BY AUGUST 18, 2015).** The Significant Violation (Violation Code: T372) issued on 8/4/2015 remains uncorrected. This office will extend the comply by date an additional 7-days to August 18, 2015. Failure to comply by August 18, 2015 may result in Red Tagging of your 87-grade tanks or other enforcement. See inspector's comments below for additional information.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
Citation:	23 CCR 16 2715 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715
Violation Description:	The owner/operator has failed to comply with one or more of the following: to maintain a copy of the designated operator monthly inspections for the last 12 months and/or maintain a list of trained employees on-site or off-site at a readily available location, if approved by the CUPA.
Violation Notes:	Returned to compliance on 08/01/2017. Training dates for Kimberly Rodriguez and Blanca Anaya are both noted as occurring almost a year prior to their reported hire dates. Ensure that information on list of employees trained by the DUSTO is accurate. (Note: Inform your DUSTO that annual line tightness testing is not required for this station and have them remove that reference from future monthly inspection reports.)
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2015
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 08/01/2017.

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This facility has failed to respond to Notice of Inspections conducted on 8/6/2014 & 8/5/2013. Copies of the 2013 & 2014 inspection reports were provided during today's inspection.

Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description: Failure to obtain and maintain a valid operation permit from the CUPA.
Violation Notes: Returned to compliance on 08/01/2017.

This facility has failed to respond to Notice of Inspections conducted on 8/6/2014 & 8/5/2013.

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 08/01/2017. The Emergency Response Plan does not include the CUPA phone number [(408)918-3400]
Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
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 08/01/2017. 1) The Certification of Financial Responsibility submitted on CERS incorrectly states that the facility is required to demonstrate $1,000,000 per occurrence and $2,000,000 annual aggregate financial responsibility (Part A of form), but TECK, LLC owns three gas stations with far fewer than 101 tanks. Amend Part A to state that the facility is required to demonstrate $1,000,000 per occurrence and $1,000,000 annual aggregate. 2) Teck LLC identifies Liability Insurance policy [mechanism] number ACP 7223366816 (Coverage Period 5/29/2016-5/29/2017), but the Certificate of Liability Insurance available on-site for review identifies the insurance policy number as ACP7883366816. 3) A Certificate of Liability Insurance demonstrating coverage amounts of $2,000,000 per

BP 07097 (Continued) **1007091382**

occurrence and $4,000,000 annual aggregate was available for review, but the copy of the policy does not have an endorsement worded as specified in 40CFR 280.97(b)(1) or a certificate of insurance worded as [Truncated]

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 01-18-2019
Citation: 23 CCR 16 2712(b)(1)(G) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(1)(G)
Violation Description: Failure to comply with one or more of the following overfill prevention equipment requirements: 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 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 Provide positive shut-off of flow to the tank when the tank is filled to no more than 95 percent of capacity; or 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. Install/retrofit overfill prevention equipment that does not use flow restrictors on vent piping to meet overfill prevention equipment requirements when the overfill prevention equipment is installed, repaired, or replaced on and after October 1,- 2018. For USTs installed before October 1, 2018, perform an inspection by October 13, 2018 and every 36 months thereafter. For USTs installed on and after October- 1,- 2018, perform an inspection at installation and every 36 months thereafter. Inspected within 30 days after a repair to the overfill prevention equipment. Inspected using an applicable manufacturer guidelines, industry codes, engineering standards, or a method approved by a professional engineer. Inspected by a certified UST service technician. Maintain records of overfill prevention equipment inspection for 36 months.
Violation Notes: Returned to compliance on 04/29/2019. Triennial overfill prevention testing performed on this date revealed that the fill limiters for the 91 tank and the diesel tank failed. Per the service technician, they are not properly installed and not properly functional because they have been installed to function at 97% tank capacity instead of the required 95% tank capacity.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
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.

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Violation Notes:	Returned to compliance on 08/01/2017. Approximately 28 gallons of water/gasoline mixture (liquid) and 50 pounds of absorbent contaminated with gasoline was observed on-site during inspection (greater than 100kg of hazardous waste), but neither the 55 gallon drum of absorbent contaminated with gasoline and the 55 gallon drum of "gasoline mixture" are identified with an initial accumulation date. Furthermore, the physical state of the gasoline mixture is not identified on the hazardous waste label.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	23 CCR 16 2632(d)(1)(C), 2641(h), 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(d)(1)(C), 2641(h), 2711(a)(8)
Violation Description:	Failure to submit or update a plot plan.
Violation Notes:	Returned to compliance on 08/01/2017. Several unrelated documents were submitted on CERS on 9/1/2014 as the UST Monitoring Site Plan and none were the UST Monitoring Site Plan. This is a repeat violation and has been elevated to a degree of Class II.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description:	Failure to obtain a valid permit to operate from the CUPA.
Violation Notes:	Returned to compliance on 08/01/2017. The facility is operating USTs without a permit from this office. The corporation that owns the property/USTs (TECK, LLC / Entity Number 200225510045) is listed in the California Secretary of State's database (http://kepler.sos.ca.gov/) as "SOS SUSPENDED". The most recent CERS submittal, dated 9/1/2014, list's the tank owner as "Masad Nicola, DBA TECH LLC". There is no record of this entity listed in the County's Fictitious Business Name database. This violation was noted during the 8/6/14 inspection and has been elevated to a degree of Class I.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 08/01/2017. This facility has submitted on CERS an obsolete version of the Emergency

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Response/Contingency Plan.

Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.
Violation Notes: Returned to compliance on 08/01/2017. 87 ELLD failed testing yesterday. This violation appears to be uncorrected from 8/5/2013. THIS IS A SIGNIFICANT UST VIOLATION THAT SHALL BE CORRECTED WITHIN 7 DAYS. Failure to comply may result in Red Tagging of your 87 tanks or other enforcement action.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2016
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 08/01/2017. The facility has not submitted proof of implement corrective actions for the following inspection dates: 8/5/13, 8/6/14 and 8/4/15. Copies of previous inspections from this office were observed to be in the site’s Maintenance binder and pointed out to Mr. Asad Nicola during the inspection. This violation has been elevated to the degree of Class I due to being a chronic violation.
Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 05-12-2017
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements:Monitor at least hourly.Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.
Violation Notes: Returned to compliance on 08/01/2017. The 87-grade Veeder-Root electronic line leak detector (ELLD) failed to detect a 3 gallon per hour leak at 10 p.s.i. when tested during this inspection. With

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exception to a passing test result on 8/18/2016, after repairs were made in the presence of an HMCD inspector, the ELLD has never passed functional testing in the presence of an HMCD inspector and no passing test results have ever been submitted to HMCD. THIS IS A REPEAT VIOLATION FROM THE OFFICIAL NOTICE OF INSPECTION REPORTS ISSUED ON 8/4/2016, 8/11/2015, 8/4/2015, 8/6/2014, and 8/5/2013 AND HAS BEEN ESCALATED TO A CLASS I VIOLATION. ALL CLASS I VIOLATIONS REQUIRE IMMEDIATE CORRECTIVE ACTION (WITHIN 7 DAYS). Failure to comply may result in Red Tagging of your 87 tanks.

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: 23 CCR 16 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2711(a)(8)
Violation Description: Failure to submit, obtain approval, or maintain a complete/accurate plot plan.
Violation Notes: Returned to compliance on 08/01/2017. **This violation is being elevated to a Class II violation due to being a repeat violation.** Facility uploaded an obsolete UST Monitoring Plan as the UST Monitoring Site Plan.

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-04-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 08/01/2017. This facility has failed to respond to Notice of Inspections conducted on 8/6/2014 & 8/5/2013. Copies of the 2013 & 2014 inspection reports were provided during today's inspection.

Violation Division: Santa Clara County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Violation Date: 08-06-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 08/01/2017. 4/2/2013 CERS submittal Site Map does not show all required information (see below).
Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP

BP 07097 (Continued) **1007091382**

Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2016
Citation:	HSC 6.7 25284(a)(3)(A) & (B); - California Health and Safety Code, Chapter 6.7, Section(s) 25284(a)(3)(A) & (B);
Violation Description:	Failure to implement or maintain a written agreement between the UST permit holder and the operator (owner/operator agreement).
Violation Notes:	Returned to compliance on 08/01/2017. A copy of the tank owner (TECK, LLC) and the operator (Morgan Hill Fuels, LP) agreement was not available during the inspection.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
Citation:	23 CCR 16 2712(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(f)
Violation Description:	Failure to implement the corrections specified in the inspection report within 30 calendar days of receiving an inspection report from either the CUPA or special inspector.
Violation Notes:	Returned to compliance on 08/01/2017. The facility has not provided a written response with the corrective actions taken to violations cited in the Official Notice of Inspection Reports issued on 8/4/2016, 8/11/2015, 8/4/2015, 8/6/2014, and 8/5/2013. THIS IS A REPEAT, UNCORRECTED VIOLATION CITED IN THE OFFICIAL NOTICE OF INSPECTION REPORTS ISSUED ON 8/4/2016, 8/4/2015, AND 8/6/2014 AND REQUIRES IMMEDIATE CORRECTIVE ACTION. COPIES OF ALL INSPECTION REPORTS WILL BE PROVIDED IN DUPLICATE WITH THIS INSPECTION REPORT.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	05-12-2017
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 site map with all required content.
Violation Notes:	Returned to compliance on 08/01/2017. The HMBP site map does not contain a north orientation and the location of emergency utility shut-offs, storm and sewer drains, and the hazardous materials handling/storage areas.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-06-2014
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

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	(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 09/05/2014. Form covering testing done on 8/5/2013 was not submitted. Scanned copy was obtained yesterday. No further corrective action is required.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	50146
Site Name:	ARCO 07097
Violation Date:	08-04-2015
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes:	Returned to compliance on 08/01/2017. The afternoon Manager, Israel Aras stated that he has not received training for hazardous waste.
Violation Division:	Santa Clara County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-15-2020
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	On site to witness annual monitoring certification performed by Elodio Sanchez of Getler-Ryan. Mr. Sanchez has current ICC Service Technician (exp 07/14/2020), Veeder Root TLS-3XX (exp. 07/05/2020), and Vaporless LDT-890 Tester (exp. 12/02/2020) certifications. Testing of the following components were witnessed during this inspection and passed: - STP sump 208 sensors activated an audible/visual alarm and provided positive shutdown when tested with water. - Under Dispenser Containment (UDC) 208 sensors activated an audible/visual alarm and provided positive shutdown when tested with water. - Liquid-filled annular 303 sensors activated an audible/visual alarm when float was placed in "high" and "low" liquid level positions. - Spill buckets were tested in accordance to PEI/RP 1200 standards for 60 minutes and confirmed to hold 5 gallons. - Electronic line leak detectors were confirmed to activate audible/visual alarm and positive shutdown upon simulation of 3 gph [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-18-2019
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	A monitoring certification was performed today by Elodio Sanchez. All of his required certifications are current. System consists of 8 dispensers, a 20,000 gallon 87 tank, a two-compartment tank including a 10,000 gallon 91 tank, and a 12,000 gallon diesel tank, 3 turbine

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sumps, 3 fill sumps, 8 dispensers, and one vent box. The following electronic sensors provided an audible and visual alarm plus positive shut-down: Eight (8) UDC 208 sump sensors at the dispensers. Two (2) 302 hydrostatic annular sensors (87 tank, 91/diesel tank), each sensor providing a high and low alarm. Three (3) 208 fill sump sensors. One (1) 208 vent box sensor. All electronic components are to be tagged by the service technician. All three turbines provided positive shut down under conditions of failsafe and sensor out. Three (3) spill buckets passed their one hour lake tests. Three (3) line leak detectors properly functioned when tested at a leak rate of 3 gallons per hour and [Truncated]

Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: NOTE TO FACILITY: Employees are provided with HMBP training and the training is documented and available for review for 2017 and 2016. ENSURE THAT ALL EMPLOYEES ARE PROVIDED WITH INITIAL AND ANNUAL REFRESHER HMBP TRAINING, THE TRAINING IS DOCUMENTED, AND THE TRAINING RECORDS ARE READILY AVAILABLE FOR REVIEW FOR THREE YEARS [HSC 25505(a)(4)]. On-site to conduct a routine hazardous materials business plan (HMBP) inspection. The following hazardous materials/wastes were observed on-site in HMBP reportable quantities: 1. Gasoline (Regular and Premium) 2. Hazardous Waste (Gasoline Mixture): 55 gallons 3. Liquid Carbon Dioxide: Approximately 20 gallons (Approximately 1400 cubic feet) NOTES: - CERS ID 10348117 - Most recent HMBP submittal: 3/6/2017 - The facility owner is the property owner. - This inspection started on 5/11/2017 and was completed along with the inspection report issuance on 5/12/2017.
Eval Division: Santa Clara County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On-site to conduct a routine hazardous waste inspection. The facility is a gas station that handles Regular and Premium gasoline. Wastes routinely generated include UST system liquids from sumps, UDC pans, and spill buckets, metal-encased used fuel filters, absorbent contaminated or saturated with gasoline, and spent dispenser hoses and nozzles. The following hazardous waste containers were observed during inspection: - One 55 gallon drum labeled as "Gasoline Mixture:" empty at the beginning of inspection, but contained approximately 28 gallons of gasoline/water mixture at the end of inspection - One 55 gallon drum containing approximately 50 pounds of absorbent contaminated/saturated with gasoline NOTES: - CA EPA ID Number: CAL000332185 (ACTIVE) - Emergency procedures are posted. - Container areas are inspected weekly. - Fire extinguishers are marked with a current maintenance receipt. Spill control equipment is readily available. Emergency response equipment [Truncated]
Eval Division: Santa Clara County Environmental Health

BP 07097 (Continued) **1007091382**

Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-12-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	This inspection started on 5/11/2017 with the annual monitoring system certification and was completed along with the inspection report issuance on 5/12/2017.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-19-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	On site for follow up testing of the 87 PLLD performed by Mr. Elodio Sanchez (certifications current) of Gettler-Ryan. The siphon jet valve on both the master and slave 87 turbines was replaced and the lines were purged of air. The PLLD was tested and detected a simulated 3 gph leak at 10 PSI, causing an audible and visible alarm and turbine shutdown. After closing the test leak the test was run again and the system returned to "All Functions Normal". Submit a copy of the Monitoring System Certification report for the PLLD retest to our office within 30 days and keep a copy available for review for at least 3 years. Reports may be sent via email to USTinspector@deh.sccgov.org.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-22-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	On-site to observe 36-month testing for the UST secondary containment system. Today’s testing was completed Nik Zagorov, Service Technician with ECO-CHEK Compliance, Inc. Verified that Mr. Zagorov’s ICC and Mfg certifications were current. Site Configuration: 87-Master 87-Slave 91 8-UDCs Observed the following tests: --All UDCs and piping sumps filled with water to a level above the pressurized piping penetration and tested with a Caldwell accelerated liquid level system; ALL PASSED. All secondary piping piping tests were underway at the time of my departure. All tanks are hydrostatically monitored; exempt from secondary containment testing requirements. Provide a copy of the Secondary Containment Test Report by 6/22/17. Contact Ray Maiden at 408-918-1980 or by email at ray.maiden@cep.sccgov.org regarding this report.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-11-2018
Violations Found:	No

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Eval Type:	Routine done by local agency
Eval Notes:	On-site to conduct a UST inspection, including a review of UST documents. The functional testing was completed on 1/16/18 with the completion of construction activities associated with SR0854602. The anniversary month to complete future Annual Monitoring Certifications is JANUARY. The following documents were reviewed during today's inspection: UST employee training was conducted on 1/4/18, 2/21/18, 3/23/18, 4/24/18 and 5/15/18. UST financial responsibility using insurance policy #ST-1904230 valid from 1/1/18 to 1/1/19; policy certification is identical to 40 CFR 280.97 (b)(2). UST 5-yr permit is valid until 5/31/22. Secondary containment testing was completed on 5/22/17. CERS: Most recent submittal: 1/30/18; a copy of the CERS submittal was available on-site, including: Facility Information, Tank Information, Monitoring Plans, Response Plan, UST Financial Responsibility & Mechanism (Ins. Policy), UST site map and Owner/Operator [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-28-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	On-site to witness spill bucket test performed by Mr. Elodio Sanchez (certifications current) of Gettler-Ryan. 5 gallon Phil-Tite bucket installed on the 87-North fill. A Seraphin calibrated container used for 5 gallon measure. Spill bucket held water for one hour with no loss. PASS. This report constitutes final clearance of this project from HMCD only.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-04-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	**THIS IS A TIME SENSITIVE REPORT AND MUST BE GIVEN TO THE STATION OWNER/OPERATOR IMMEDIATELY.** On-site to observe the annual UST Monitoring Certification. The Service Technician that conducted all tests was Nik Zagorov from ECO-Chek Compliance; all required UST certifications were verified to be current. Verified that all equipment tested today matched equipment listed on the CERS submittal, dated 9/1/2014. There were no changes to the site's monitoring equipment during today's inspection. The 87 & 91 spill buckets were hydrostatically tested with 5-gallons of water for 60-minutes with no drop in liquid. ATG probes for all tanks were removed and the fuel floats raised to 90% to verify audible and visual alarm at the tank pad and monitoring panel. All UDC & STP sump sensors (794380-208) were tested with water and produced an audible and visual alarm at the monitoring panel as well as positive shutdown of the turbines. All annular sensors (794380-302) [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS

BP 07097 (Continued) **1007091382**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-04-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Facility submitted their HMBP on CERS on 9-1-2014.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-04-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Verified that the site EPA ID Number: CAL000332185 is active. Reviewed manifest (1) that had matched copies.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-04-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	The inspection began on 8/2/16 and concluded on 8/4/16 with the email delivery of this report to Masad Nicola (UST Owner), since he resides out of state. Mr. Albert Wolff for DEH-HMCD was present during the functional testing on 8/2/16. On-site to observe the annual UST Monitoring Certification. The Service Technician that conducted all tests was Nik Zagorov from ECO-CHEK Compliance, Inc., all required UST certifications were verified to be current. Verified that all equipment tested today matched equipment listed on the CERS submittal, dated 9/1/2014. All spill buckets were hydrostatically tested with 5-gallons of water for 60-minutes with no drop in liquid, except as noted above All tanks utilize ATG probe for overfill monitoring. Each ATG probe was removed from their respective tank and the fuel float was raise until the interior & exterior audible and visual alarms activated; both probes activated at 90%. All STP sump sensors were tested with water and [Truncated]
Eval Division:	Santa Clara County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-05-2013
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	FACILITY HMBP WAS SUBMITTED VIA CERS ON 4/5/13.
Eval Division:	Santa Clara County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-05-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	DISPOSAL RECEIPTS WERE REMOVED FROM THE SITE ON 7/30/13 BY STATE BOARD OF EQUALIZATION, AGENT T. SCHMIDT 916-995-6457. FACILITY MUST CONTACT

BP 07097 (Continued) **1007091382**

RAY MAIDEN AT 408-918-1980 ONCE THE RECORDS ARE RETURNED SO THAT A RECORDS INSPECTION CAN BE COMPLETED. THE COUNTY OFFERS FREE HAZARDOUS WASTE CLASSES, CONTACT 408-918-3400 TO SIGN-UP FOR THE NEXT AVAILABLE HAZARDOUS WASTE MANAGEMENT CLASS.

Eval Division: Santa Clara County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-05-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: THE ANNUAL MONITORING CERTIFICATION WAS COMPLETED BY NIK ZAGOROV FROM ECO-CHEK, ALL CERTIFICATIONS WERE VERIFIED AND CURRENT. ALL DOCUMENTS INCLUDING MONTHLY D.O. REPORTS, TRAINING RECORDS, FINANCIAL RESPONSIBILITY, PAST TEST RESULTS, ETC WERE REMOVED FROM THE SITE ON 7/30/13 BY STATE BOARD OF EQUALIZATION, AGENT T. SCHMIDT 916-995-6457. SYSTEM SETUP: SOFTWARE VERSION 329.01 VEEDER-ROOT TLS-350 TANK IDG S T-1: 87-GRADE (MAIN) T-2: 87-GRADE (AUX) T-3: 91-GRADE LIQUID SENSORS: L-1: 87-MAIN ANNULAR (V/R 794380-302) (HIGH/LOW) L-2: 87-MAIN FILL (V/R 794380-208) L-3: 87-MAIN STP (V/R 794380-208) L-4: 87-AUX & 91-GRADE ANNULAR (V/R 794380-302) (HIGH/LOW) L-5: 91-GRADE STP (V/R 794380-208) L-6: 91-GRADE FILL (V/R 794380-208) L-7: 87-AUX FILL (V/R 794380-208) L-8: 87-AUX STP (V/R 794380-208) L-9: DISP 1-2 (V/R 794380-208) L-10: DISP 3-4 (V/R 794380-208) L-11: DISP 5-6 (V/R 794380-208) L-12: DISP 7-8 (V/R 794380-208) L-13: DISP 9-10 (V/R [Truncated]
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-06-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Inspection began yesterday and concluded today.
Eval Division: Santa Clara County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-06-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Inspection began yesterday and concluded today.
Eval Division: Santa Clara County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-06-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Inspection began yesterday and concluded today. All UST system leak detection equipment was tested yesterday by by UST Service Technician Nik Zagorov of Eco-Chek Compliance and functioned properly except as noted above. Mr. Zagorov has current ICC UST Service Technician

BP 07097 (Continued) **1007091382**

certification (exp. 5/30/2015), Veeder-Root Level 4 certification (exp. 12/13/2014), and Vaporless Manufacturing (VMI) LDT-890 certification (exp. 3/19/2016). Both Model 794380-301 hydrostatic annular sensors were tested by raising them out of the tank interstitial fluid, then inverting them to obtain both low-liquid and high-liquid alarms. Six sump bottom (3 STP & and 8 UDC bottom Model 794380-208 liquid sensors were tested using water to obtain fuel alarms. Fail safe turbine shutdown was confirmed for the submersible turbine pump (STP) sump sensors (system is programmed to shut down for all leak alarms). Shut-down is initiated via the ELLD rather than via relay initiated shut-down. System setup [Truncated]

Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-09-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: I met with Mr. Nicola to review the most current UST inspection report as well as Notices of Inspection from 8/4/15, 8/6/14 and 8/5/13. We went over each violation in detail and I explained that a UST permit from this office cannot be issued due to the number and degree of the violations cited. I assisted Mr. Nicola with California Environmental Reporting System (CERS). We went through each UST section and corrected errors regarding ownership, primary and secondary contacts and UST installation dates. I made Mr. Nicola aware of the County's CERS Lead User Authorization form to control access to his facility and a copy of the form will be sent via email. I explained the issue with the importance of attention to detail with not interchanging the UST owner company (TECK, LLC) and the operator (Morgan Hill Fuel, L.P.). Mr. Nicola presented a copy of his Owner / Operator agreement but it did not meet the requirements noted in violation T024. I reviewed the renewed [Truncated]

Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-11-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: **THIS IS A TIME SENSITIVE REPORT AND MUST BE GIVEN TO THE STATION OWNER/OPERATOR IMMEDIATELY.** Observed the repair and retesting of the 87-grade Electronic Line Leak Detector. The repairs and retesting was completed by Service Technician, Tracey Thornbrugh from Stroupe Petroleum Maintenance, Inc. Mr. ThornbrughG s certifications included: ICC 5260151 exp: 6/1/2017, Veeder-Root A31557 exp.: 2/2/2016 and VMI LDT-890 #2437 exp: 8/8/15. The repairs to the 87-grade system included the replacement of siphon jet fittings on both the primary and auxiliary turbines. The filter on the transducer on the auxiliary turbine was 75% blocked by particulates. The particulates were removed and the line was retested using a VMI LDT-890 tester. A new PLLD was installed. Approximately, 60-gallons of fuel was pumped to purge entrapped air. The VMI tester was calibrated on 4/25/2014. The new PLLD on the 87-grade was tested using a VMI LDT-890 test system to simulate a 3-gallon [Truncated]

BP 07097 (Continued) **1007091382**

Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: **THIS IS A TIME SENSITIVE REPORT AND MUST BE GIVEN TO THE STATION OWNER/OPERATOR IMMEDIATELY.** Observed the functional testing of the 87-grade PLLD. TodayG s test was a follow-up to the inspection on August 11, 2015. The significant violation noted for violation code T-372 was corrected on August 18, 2015. Testing was completed by Service Technician, Tracey Thornbrugh from Stroupe Petroleum Maintenance, Inc. Mr. ThornbrughG s certifications included: ICC 5260151 exp: 6/1/2017, Veeder-Root A31557 exp.: 2/2/2016 and VMI LDT-890 #2437 exp: 8/11/17. The VMI tester was calibrated on 4/25/2014. The new PLLD on the 87-grade was tested using a VMI LDT-890 test system to simulate a 3-gallon per hour leak at 10-psi. The new 87-grade PLLD leak detector produced a PLLD alarm at the monitoring panel (date stamp of the 87-PLLD: August 18, 2015 at 10:43 am). Contact Ray Maiden at 408-918-1980 or by email at ray.maiden@deh.sccgov.org regarding this report. Provide a [Truncated]
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: On-site to witness the functional testing of the 87-ELLD for functionality. The Service Technician that conducted today’s testing was Nik Zagorov from ECO-CHEK Compliance, Inc. Mr. Zagorov’s ICC and Mfg certifications were verified to be current. Mr. Zagorov tested the electronic line leak detector (ELLD) for 87-grade at dispenser 14. The 87-ELLD functioned as required when tested with a VMI LDT-890 tester that was calibrated to simulate a leak of 3-gallon per hour at 10-psi. The 87-ELLD detected the leak and went into shutdown mode as required. The device that controls the alternation between the 87-turbines is a separate logic controller then that of the Veeder-Root Automatic Tank Gauge (ATG) system. Given that the independent controller is not connected to the inventory monitoring (Veeder-Root) of the tanks, if either of the 87-tanks is allowed to go below a tank level where the turbine looses suction a repeat condition may occur. The 7-day Significant [Truncated]
Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: On-site to witness the hydrostatic testing of a Phil-Tite 85100 spill bucket for the 87-1 fill. The contractor of record for the installation was ECO-CHEK Compliance, Inc. and the Service Technician

BP 07097 (Continued) **1007091382**

was Mr. Nik Zagorov, ICC: 8358231, Service Technician exp: 5/21/2017. Confirmed that a copy of the County's approval letter for this repair was on-site as required. The spill bucket was filled above the cap and to the rim of water (>5-gallons) for 60 minutes with no liquid loss; PASS. The spill bucket is approved to be used as it was designed. Provide this office with a copy of a completed "Spill Bucket Testing Report Form" by September 10, 2016.

Eval Division: Santa Clara County Environmental Health
Eval Program: UST
Eval Source: CERS

Enforcement Action:
Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-04-2015
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: Santa Clara County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-04-2015
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: Santa Clara County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-04-2015
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: Santa Clara County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-05-2013

BP 07097 (Continued) **1007091382**

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: Santa Clara County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-05-2013
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: Santa Clara County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-06-2014
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: Santa Clara County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-06-2014
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: Santa Clara County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-06-2014
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: Santa Clara County Environmental Health
Enf Action Program: UST

BP 07097 (Continued) **1007091382**

Enf Action Source: CERS

Site ID: 50146
Site Name: ARCO 07097
Site Address: 18605 MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 08-11-2015
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: Santa Clara County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Coordinates:
Site ID: 50146
Facility Name: ARCO 07097
Env Int Type Code: HWG
Program ID: 10348117
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.144340
Longitude: -121.664980

Affiliation:
Affiliation Type Desc: Parent Corporation
Entity Name: BP PRODUCTS NORTH AMERICA, INC.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: Masad Nicola
Entity Title: Owner / Operator
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (503) 680-0033

Affiliation Type Desc: CUPA District
Entity Name: Santa Clara County Environmental Health
Entity Title: Not reported
Affiliation Address: 1555 Berger Drive, Suite 300
Affiliation City: San Jose
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95112-2716
Affiliation Phone: (408) 918-3400

BP 07097 (Continued) **1007091382**

Affiliation Type Desc:	Identification Signer
Entity Name:	KIMBERLY MEDICUS
Entity Title:	RETAIL COMPLIANCE COORDINATOR
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	BP PRODUCTS NORTH AMERICA, INC
Entity Title:	Not reported
Affiliation Address:	PO BOX 6038
Affiliation City:	ARTESIA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90702
Affiliation Phone:	(360) 970-2296

Affiliation Type Desc:	Property Owner
Entity Name:	BP PRODUCTS NORTH AMERICA, INC
Entity Title:	Not reported
Affiliation Address:	PO BOX 6038
Affiliation City:	ARTESIA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90702
Affiliation Phone:	(360) 970-2296

Affiliation Type Desc:	Environmental Contact
Entity Name:	KIMBERLY MEDICUS, RETAIL COMPLIANCE COORDINATOR
Entity Title:	Not reported
Affiliation Address:	PO BOX 6038
Affiliation City:	ARTESIA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90702
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	PO BOX 6038
Affiliation City:	ARTESIA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	90702
Affiliation Phone:	Not reported

Affiliation Type Desc:	UST Tank Operator
Entity Name:	MSCO VISIONS OF SUCCESS, INC ARCO 7097
Entity Title:	Not reported
Affiliation Address:	18605 MONTEREY RD
Affiliation City:	MORGAN HILL
Affiliation State:	CA
Affiliation Country:	United States

BP 07097 (Continued) **1007091382**

Affiliation Zip: 95037
Affiliation Phone: (408) 778-0329

Affiliation Type Desc: UST Tank Owner
Entity Name: BP PRODUCTS NORTH AMERICA, INC
Entity Title: Not reported
Affiliation Address: 18605 MONTEREY RD
Affiliation City: MORGAN HILL
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95037
Affiliation Phone: (360) 970-2296

Affiliation Type Desc: Document Preparer
Entity Name: BELSHIRE ENVIRONMENTAL SERVICES, INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: MSCO VISIONS OF SUCCESS, INC ARCO 7097
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: (503) 680-0033

Affiliation Type Desc: UST Property Owner Name
Entity Name: BP PRODUCTS NORTH AMERICA, INC
Entity Title: Not reported
Affiliation Address: 18605 MONTEREY RD
Affiliation City: MORGAN HILL
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95037
Affiliation Phone: (360) 970-2296

CUPA SANTA CLARA:
Name: ARCO FACILITY #07097
Address: 18605 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: Not reported
Program Description: HMBP FACILITY, 1-3 CHEMICALS
Program Identifier: DEH PERMIT-HAZ MAT BUSINESS PLAN PROGRAM
Latitude: 37.144813
Longitude: -121.665005
Record ID: PR0383852
Facility ID: FA0261741

BP 07097 (Continued) **1007091382**

Name: ARCO FACILITY #07097
Address: 18605 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: 2205
Program Description: GENERATES 100 KG YR TO <5 TONS/YR
Program Identifier: DEH PERMIT-HAZ WASTE GENERATOR PROGRAM
Latitude: 37.144813
Longitude: -121.665005
Record ID: PR0383854
Facility ID: FA0261741

Name: ARCO FACILITY #07097
Address: 18605 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: 2399
Program Description: UNDERGROUND STORAGE TANK PROGRAM RECORD
Program Identifier: Not reported
Latitude: 37.144813
Longitude: -121.665005
Record ID: PR0384227
Facility ID: FA0261741

HAZNET:
Name: BP 07097
Address: 18605 MONTEREY RD
Address 2: Not reported
City,State,Zip: MORGAN HILL, CA 90702
Contact: DARYL LEE
Telephone: 4159025089
Mailing Name: Not reported
Mailing Address: PO BOX 6038

Year: 2019
Gepaid: CAR000148650
TSD EPA ID: CAT080013352
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.21000

Year: 2019
Gepaid: CAR000148650
TSD EPA ID: NVT330010000
CA Waste Code: 352 - Other organic solids
Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.11250

Year: 2018
Gepaid: CAR000148650
TSD EPA ID: NVT330010000
CA Waste Code: 352 - Other organic solids
Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

BP 07097 (Continued) **1007091382**

Tons:	0.09250
Year:	2018
Gepaid:	CAR000148650
TSD EPA ID:	CAT080013352
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	2.44020
Year:	2018
Gepaid:	CAR000148650
TSD EPA ID:	NVT330010000
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.19800
Year:	2017
Gepaid:	CAR000148650
TSD EPA ID:	CAT080013352
CA Waste Code:	133 - Aqueous solution with total organic residues 10 percent or more
Disposal Method:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	7.506

Additional Info:

Year:	2017
Gen EPA ID:	CAR000148650
Shipment Date:	20171214
Creation Date:	10/16/2018 18:31:15
Receipt Date:	20171220
Manifest ID:	010665080FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVT330010000
Trans Name:	US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D002
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.10842
Waste Quantity:	26
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

BP 07097 (Continued) **1007091382**

Shipment Date:	20171214
Creation Date:	10/16/2018 18:31:15
Receipt Date:	20171220
Manifest ID:	010665079FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVT330010000
Trans Name:	US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D018
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	0.0375
Waste Quantity:	75
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171214
Creation Date:	10/16/2018 18:31:15
Receipt Date:	20171220
Manifest ID:	010665084FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVT330010000
Trans Name:	US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.0561
Waste Quantity:	17
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171214
Creation Date:	10/16/2018 18:31:15
Receipt Date:	20171220
Manifest ID:	010665083FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	Not reported

BP 07097 (Continued) **1007091382**

Trans 2 Name:	Not reported
TSDF EPA ID:	NVT330010000
Trans Name:	US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	513 - Empty containers less than 30 gallons
RCRA Code:	Not reported
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	0.03
Waste Quantity:	60
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171107
Creation Date:	6/13/2018 18:31:31
Receipt Date:	20171110
Manifest ID:	009712668FLE
Trans EPA ID:	CAT080016116
Trans Name:	NIETO AND SONS TRUCKING INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	133 - Aqueous solution with 10% or more total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	7.506
Waste Quantity:	1800
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

A2 **VISION OF SUCCESS INC ARCO AM PM** **RCRA NonGen / NLR** **1024861421**
NNW **18605 MONTEREY RD** **CAL000429898**
< 1/8 **MORGAN HILL, CA 95037**
0.002 mi.
11 ft. **Site 2 of 6 in cluster A**

Relative: **Higher**
Actual: **353 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:	2017-08-08 00:00:00.0
Handler Name:	VISION OF SUCCESS INC ARCO AM PM
Handler Address:	18605 MONTEREY RD
Handler City,State,Zip:	MORGAN HILL, CA 95037
EPA ID:	CAL000429898
Contact Name:	BEJAN FARAHBAKHSH
Contact Address:	4501 MAIN ST
Contact City,State,Zip:	OAKLEY, CA 94561

VISION OF SUCCESS INC ARCO AM PM (Continued) **1024861421**

Contact Telephone:	925-785-4950
Contact Fax:	Not reported
Contact Email:	BEJFARA@HOTMAIL.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:	4501 MAIN ST
Mailing City,State,Zip:	OAKLEY, CA 94561
Owner Name:	BEJAN FARAHBAKHSH
Owner Type:	Other
Operator Name:	BEJAN FARAHBAKHSH
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

VISION OF SUCCESS INC ARCO AM PM (Continued) **1024861421**

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:	2018-09-07 19:36:23.0
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:	BEJAN FARAHBAKHSH
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	4501 MAIN ST
Owner/Operator City,State,Zip:	OAKLEY, CA 94561
Owner/Operator Telephone:	925-785-4950
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	BEJAN FARAHBAKHSH
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	4501 MAIN ST
Owner/Operator City,State,Zip:	OAKLEY, CA 94561
Owner/Operator Telephone:	925-785-4950
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2017-08-08 00:00:00.0
Handler Name:	VISION OF SUCCESS INC ARCO AM PM
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

VISION OF SUCCESS INC ARCO AM PM (Continued) **1024861421**

Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 44719
NAICS Description: OTHER GASOLINE STATIONS

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

A3 **ARCO 07097** **UST** **U004274067**
NNW **18605 MONTEREY RD** **N/A**
< 1/8 **MORGAN HILL, CA 95037**
0.002 mi.
11 ft. **Site 3 of 6 in cluster A**

Relative: **Higher**
Actual: **353 ft.**

UST:
Name: ARCO 07097
Address: 18605 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Facility ID: Not reported
Permitting Agency: Santa Clara County Environmental Health
Latitude: 37.14434
Longitude: -121.66498

Name: ARCO 07097
Address: 18605 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Facility ID: FA0261741
Permitting Agency: Santa Clara County Environmental Health
Latitude: 37.14434
Longitude: -121.66498

A4 **MORGAN HILL FUEL** **UST** **U004266041**
NNW **18605 MONTEREY RD** **N/A**
< 1/8 **MORGAN HILL, CA 95037**
0.002 mi.
11 ft. **Site 4 of 6 in cluster A**

Relative: **Higher**
Actual: **353 ft.**

UST:
Name: MORGAN HILL FUEL
Address: 18605 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Facility ID: Not reported
Permitting Agency: Santa Clara County Environmental Health
Latitude: 37.14434
Longitude: -121.66498

A5 **BP CORPORATION NORTH AMER INC** **EDR Hist Auto** **1020312346**
NNW **18605 MONTEREY RD** **N/A**
< 1/8 **MORGAN HILL, CA 95037**
0.002 mi.
11 ft. **Site 5 of 6 in cluster A**

Relative: EDR Hist Auto
Higher

Actual: **353 ft.**

Year:	Name:	Type:
2010	BP NORTH AMERICA	Gasoline Service Stations, NEC
2011	BP NORTH AMERICA	Gasoline Service Stations, NEC
2012	BP CORPORATION NORTH AMER INC	Gasoline Service Stations, NEC
2013	BP CORPORATION NORTH AMER INC	Gasoline Service Stations, NEC
2014	BP CORPORATION NORTH AMER INC	Gasoline Service Stations, NEC

A6 **ARCO AM/PM #6548** **CUPA Listings** **S121473343**
NNW **18605 MONTEREY HY** **N/A**
< 1/8 **MORGAN HILL, CA 95037**
0.002 mi.
11 ft. **Site 6 of 6 in cluster A**

Relative: CUPA SANTA CLARA:
Higher

Actual: **353 ft.**

Name:	ARCO AM/PM #6548
Address:	18605 MONTEREY HY
City,State,Zip:	MORGAN HILL, CA 95037
Region:	SANTA CLARA
PE#:	2205
Program Description:	GENERATES 100 KG YR TO <5 TONS/YR
Program Identifier:	DEH PERMIT-HAZ WASTE GENERATOR PROGRAM
Latitude:	37.144813
Longitude:	-121.665005
Record ID:	PR0378682
Facility ID:	FA0258566

B7 **MORGAN HILL FIRE DEPARTMENT** **CUPA Listings** **S113172514**
South **18300 OLD MONTEREY ROAD** **EMI** **N/A**
< 1/8 **MORGAN HILL, CA 95037** **HAZNET**
0.022 mi. **CERS**
117 ft. **Site 1 of 3 in cluster B** **HWTS**

Relative: CUPA SANTA CLARA:
Higher

Actual: **352 ft.**

Name:	EL TORO FIRE STATION # 4
Address:	18300 OLD MONTEREY RD
City,State,Zip:	MORGAN HILL, CA 95037
Region:	SANTA CLARA
PE#:	Not reported
Program Description:	HMBP FACILITY, 1-3 CHEMICALS
Program Identifier:	DEH PERMIT-HAZ MAT BUSINESS PLAN PROGRAM
Latitude:	37.141632
Longitude:	-121.663489
Record ID:	PR0376031
Facility ID:	FA0257231

EMI:

Name:	SANTA CLARA COUNTY FIRE DEPT
Address:	18300 OLD MONTEREY ROAD
City,State,Zip:	MORGAN HILL, CA 95037
Year:	2011

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

County Code:	43
Air Basin:	SF
Facility ID:	19960
Air District Name:	BA
SIC Code:	9224
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.003
Reactive Organic Gases Tons/Yr:	0.0025101
Carbon Monoxide Emissions Tons/Yr:	0.01
NOX - Oxides of Nitrogen Tons/Yr:	0.045
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	MORGAN HILL FIRE DEPARTMENT
Address:	18300 OLD MONTEREY ROAD
City,State,Zip:	MORGAN HILL, CA 95037
Year:	2012
County Code:	43
Air Basin:	SF
Facility ID:	19960
Air District Name:	BA
SIC Code:	9224
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.003
Reactive Organic Gases Tons/Yr:	0.0025101
Carbon Monoxide Emissions Tons/Yr:	0.01
NOX - Oxides of Nitrogen Tons/Yr:	0.045
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.0030737704918
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.003

Name:	MORGAN HILL FIRE DEPARTMENT
Address:	18300 OLD MONTEREY ROAD
City,State,Zip:	MORGAN HILL, CA 95037
Year:	2013
County Code:	43
Air Basin:	SF
Facility ID:	19960
Air District Name:	BA
SIC Code:	9224
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0.001
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	MORGAN HILL FIRE DEPARTMENT

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Address:	18300 OLD MONTEREY ROAD
City,State,Zip:	MORGAN HILL, CA 95037
Year:	2014
County Code:	43
Air Basin:	SF
Facility ID:	19960
Air District Name:	BA
SIC Code:	9224
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.000101331
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0.000306
NOX - Oxides of Nitrogen Tons/Yr:	0.001407535
SOX - Oxides of Sulphur Tons/Yr:	6.52e-007
Particulate Matter Tons/Yr:	0.000104779
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.000100588

Name:	MORGAN HILL FIRE DEPARTMENT
Address:	18300 OLD MONTEREY ROAD
City,State,Zip:	MORGAN HILL, CA 95037
Year:	2015
County Code:	43
Air Basin:	SF
Facility ID:	19960
Air District Name:	BA
SIC Code:	9224
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.4443e-005
Reactive Organic Gases Tons/Yr:	8.2213e-005
Carbon Monoxide Emissions Tons/Yr:	0.000255
NOX - Oxides of Nitrogen Tons/Yr:	0.001172946
SOX - Oxides of Sulphur Tons/Yr:	5.44e-007
Particulate Matter Tons/Yr:	1.6751e-005
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.6081e-005

Name:	MORGAN HILL FIRE DEPARTMENT
Address:	18300 OLD MONTEREY ROAD
City,State,Zip:	MORGAN HILL, CA 95037
Year:	2016
County Code:	43
Air Basin:	SF
Facility ID:	19960
Air District Name:	BA
SIC Code:	9224
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.4443e-005
Reactive Organic Gases Tons/Yr:	7.41831755e-005
Carbon Monoxide Emissions Tons/Yr:	0.000255
NOX - Oxides of Nitrogen Tons/Yr:	0.001172946
SOX - Oxides of Sulphur Tons/Yr:	5.44e-007
Particulate Matter Tons/Yr:	1.6751e-005

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Part. Matter 10 Micrometers and Smllr Tons/Yr:1.6081e-005

Name:	MORGAN HILL FIRE DEPARTMENT
Address:	18300 OLD MONTEREY ROAD
City,State,Zip:	MORGAN HILL, CA 95037
Year:	2017
County Code:	43
Air Basin:	SF
Facility ID:	19960
Air District Name:	BA
SIC Code:	9224
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.000202663
Reactive Organic Gases Tons/Yr:	0.0001780394455
Carbon Monoxide Emissions Tons/Yr:	0.000612
NOX - Oxides of Nitrogen Tons/Yr:	0.002815072
SOX - Oxides of Sulphur Tons/Yr:	1.305e-006
Particulate Matter Tons/Yr:	4.0203e-005
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.8595e-005

Name:	MORGAN HILL FIRE DEPARTMENT
Address:	18300 OLD MONTEREY ROAD
City,State,Zip:	MORGAN HILL, CA 95037
Year:	2018
County Code:	43
Air Basin:	SF
Facility ID:	19960
Air District Name:	BA
SIC Code:	9224
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.000202797
Reactive Organic Gases Tons/Yr:	0.0001781571645
Carbon Monoxide Emissions Tons/Yr:	0.000612406
NOX - Oxides of Nitrogen Tons/Yr:	0.00281694
SOX - Oxides of Sulphur Tons/Yr:	1.306e-006
Particulate Matter Tons/Yr:	4.023e-005
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.8621e-005

HAZNET:

Name:	EL TORO FIRE STATION
Address:	18300 OLD MONTEREY HWY
Address 2:	Not reported
City,State,Zip:	MORGAN HILL, CA 950373013
Contact:	--
Telephone:	--
Mailing Name:	Not reported
Mailing Address:	--
Year:	1996
Gepaid:	CAP601252096
TSD EPA ID:	CAD044429835
CA Waste Code:	343 - Unspecified organic liquid mixture
Disposal Method:	R01 - Recycler

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Tons: 0.119

Year: 1996
Gepaid: CAP601252096
TSD EPA ID: CAD044429835
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: T03 - Treatment, Incineration
Tons: 0.005

Year: 1996
Gepaid: CAP601252096
TSD EPA ID: CAT000646117
CA Waste Code: 512 - Other empty containers 30 gallons or more
Disposal Method: D80 - Disposal, Land Fill
Tons: 0.15

Year: 1996
Gepaid: CAP601252096
TSD EPA ID: CAD044429835
CA Waste Code: 791 - Liquids with pH <= 2
Disposal Method: T03 - Treatment, Incineration
Tons: 0.0175

Year: 1996
Gepaid: CAP601252096
TSD EPA ID: CAD044429835
CA Waste Code: 461 - Paint sludge
Disposal Method: R01 - Recycler
Tons: 0.1459

Additional Info:
Year: 1996
Gen EPA ID: CAP601252096

Shipment Date: 19960419
Creation Date: 10/16/1996 0:00:00
Receipt Date: 19960423
Manifest ID: 95721634
Trans EPA ID: CAD982492399
Trans Name: Not reported
Trans 2 EPA ID: CAD982492399
Trans 2 Name: Not reported
TSDF EPA ID: CAD044429835
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 461 - Paint sludge
RCRA Code: D001
Meth Code: R01 - Recycler
Quantity Tons: 0.1459
Waste Quantity: 35
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Additional Code 5:	Not reported
Shipment Date:	19960419
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960423
Manifest ID:	95721634
Trans EPA ID:	CAD982492399
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982492399
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD044429835
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Meth Code:	T03 - Treatment, Incineration
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960419
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960422
Manifest ID:	95721635
Trans EPA ID:	CAD982492399
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982492399
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	512 - Other empty containers 30 gallons or more
RCRA Code:	Not reported
Meth Code:	D80 - Disposal, Land Fill
Quantity Tons:	0.15
Waste Quantity:	300
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960419
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960423
Manifest ID:	95721634
Trans EPA ID:	CAD982492399
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982492399

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD044429835
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	791 - Liquids with pH < 2 792 Liquids with pH < 2 with metals
RCRA Code:	D002
Meth Code:	T03 - Treatment, Incineration
Quantity Tons:	0.0175
Waste Quantity:	35
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19960419
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960423
Manifest ID:	95721634
Trans EPA ID:	CAD982492399
Trans Name:	Not reported
Trans 2 EPA ID:	CAD982492399
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD044429835
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	343 - Unspecified organic liquid mixture
RCRA Code:	D001
Meth Code:	R01 - Recycler
Quantity Tons:	0.119
Waste Quantity:	35
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CERS:

Name:	EL TORO FIRE STATION # 4
Address:	18300 OLD MONTEREY RD
City,State,Zip:	MORGAN HILL, CA 95037
Site ID:	27925
CERS ID:	10347997
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	27925
Site Name:	EL TORO FIRE STATION # 4
Violation Date:	07-01-2015
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.

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Violation Notes: SITE MAP DID NOT INDICATE THE LOCATION OF THE EMERGENCY SHUT-OFFS FOR GAS & WATER, STORM DRAIN LOCATION AND VOLUME OF DIESEL TANK. THESE VIOLATIONS WERE CORRECTED DURING THE INSPECTION ON 7-1-15 ON CERS; NO FURTHER ACTION IS REQUIRED.

Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 27925
Site Name: EL TORO FIRE STATION # 4
Violation Date: 07-01-2015
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

Violation Notes: EMERGENCY RESPONSE/CONTINGENCY PLAN WAS ON AN OBSOLETE FORM. THIS VIOLATION WAS CORRECTED DURING THE INSPECTION ON 7-1-15 ON CERS; NO FURTHER ACTION IS REQUIRED.

Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 27925
Site Name: EL TORO FIRE STATION # 4
Violation Date: 07-01-2015
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: DIESEL FUEL FOR THE EMERGENCY GENERATOR WAS NOT ON THE INVENTORY. THIS VIOLATION WAS CORRECTED DURING THE INSPECTION ON CERS ON 7-1-15; NO FURTHER ACTION IS REQUIRED.

Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-01-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Conducted a HMBP inspection and assisted with navigating CERS.
Eval Division: Santa Clara County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 27925

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Site Name: EL TORO FIRE STATION # 4
Site Address: 18300 OLD MONTEREY RD
Site City: MORGAN HILL
Site Zip: 95037
Enf Action Date: 07-01-2015
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: Santa Clara County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 27925
Facility Name: EL TORO FIRE STATION # 4
Env Int Type Code: HMBP
Program ID: 10347997
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.141560
Longitude: -121.663560

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Santa Clara County Environmental Health
Entity Title: Not reported
Affiliation Address: 1555 Berger Drive, Suite 300
Affiliation City: San Jose
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95112-2716
Affiliation Phone: (408) 918-3400

Affiliation Type Desc: Identification Signer
Entity Name: Ruben Garcia
Entity Title: Captain
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
Entity Name: Ruben Garcia
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Morgan Hill ECC
Entity Title: Not reported

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Affiliation Address:	15670 Monterey Rd
Affiliation City:	MORGAN HILL
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95037
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Morgan Hill Fire Department
Entity Title:	Not reported
Affiliation Address:	18300 OLD MONTEREY RD
Affiliation City:	MORGAN HILL
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95037
Affiliation Phone:	(408) 778-3259
Affiliation Type Desc:	Parent Corporation
Entity Name:	EL TORO FIRE STATION #12
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Morgan Hill City
Entity Title:	Not reported
Affiliation Address:	17575 Peak Ave
Affiliation City:	Morgan Hill
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95037
Affiliation Phone:	(408) 778-3259
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	18300 OLD MONTEREY RD
Affiliation City:	MORGAN HILL
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95037
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Morgan Hill Fire Departmant
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:	(408) 778-3259

MORGAN HILL FIRE DEPARTMENT (Continued) **S113172514**

Name: MORGAN HILL FIRE DEPARTMENT
Address: 18300 OLD MONTEREY ROAD
City,State,Zip: MORGAN HILL, CA 95037
Site ID: 492466
CERS ID: 110058309058
CERS Description: US EPA Air Emission Inventory System (EIS)

HWTS:
Name: EL TORO FIRE STATION
Address: 18300 OLD MONTEREY HWY
Address 2: Not reported
City,State,Zip: MORGAN HILL, CA 950373013
EPA ID: CAP601252096
Inactive Date: 12/21/2000
Create Date: 05/13/1998
Last Act Date: 07/06/2010
Mailing Name: Not reported
Mailing Address: --
Mailing Address 2: Not reported
Mailing City,State,Zip: --, 99 000000000
Owner Name: --
Owner Address: --
Owner Address 2: Not reported
Owner City,State,Zip: --, 99 --
Contact Name: --
Contact Address: --
Contact Address 2: Not reported
City,State,Zip: --, 99 --

C8 **VISION OF SUCCESS INC, 18605 MONTEREY** **CUPA Listings** **S113152494**
NW **18605 MONTEREY ST** **HAZNET** **N/A**
< 1/8 **MORGAN HILL, CA 95037** **CERS**
0.035 mi. **HWTS**
185 ft. **Site 1 of 2 in cluster C**

Relative: Higher
Actual: 355 ft.

CUPA SANTA CLARA:
Name: VISION OF SUCCESS INC, 18605 MONTEREY
Address: 18605 MONTEREY ST
City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: Not reported
Program Description: HMBP FACILITY, 1-3 CHEMICALS
Program Identifier: DEH PERMIT-HAZ MAT BUSINESS PLAN PROGRAM
Latitude: 37.1443503
Longitude: -121.6648593
Record ID: PR0428752
Facility ID: FA0285914

Name: VISION OF SUCCESS INC, 18605 MONTEREY
Address: 18605 MONTEREY ST
City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: 2202
Program Description: GENERATES < 100 KG/YR
Program Identifier: DEH PERMIT-HAZ WASTE GENERATOR PROGRAM
Latitude: 37.1443503
Longitude: -121.6648593

VISION OF SUCCESS INC, 18605 MONTEREY (Continued) **S113152494**

Record ID: PR0428754
Facility ID: FA0285914

HAZNET:
Name: MORGAN HILL FUEL LP
Address: 18605 MONTEREY ST
Address 2: Not reported
City,State,Zip: MORGAN HILL, CA 950373027
Contact: NICK NICOLA
Telephone: 4087780329
Mailing Name: Not reported
Mailing Address: 18605 MONTEREY RD

Year: 2017
Gepaid: CAL000332185
TSD EPA ID: NVT330010000
CA Waste Code: 352 - Other organic solids
Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.0625

Year: 2017
Gepaid: CAL000332185
TSD EPA ID: CAT080013352
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.189

Year: 2016
Gepaid: CAL000332185
TSD EPA ID: CAT080013352
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.084

Year: 2014
Gepaid: CAL000332185
TSD EPA ID: NVT330010000
CA Waste Code: 352 - Other organic solids
Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.0375

Year: 2011
Gepaid: CAL000332185
TSD EPA ID: CAT080013352
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.105

Year: 2009

VISION OF SUCCESS INC, 18605 MONTEREY (Continued) **S113152494**

Gepaid:	CAL000332185
TSD EPA ID:	NVT330010000
CA Waste Code:	352 - Other organic solids
Disposal Method:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.05
Year:	2009
Gepaid:	CAL000332185
TSD EPA ID:	CAT080013352
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.21

Additional Info:

Year:	2011
Gen EPA ID:	CAL000332185
Shipment Date:	20110719
Creation Date:	10/1/2011 18:30:39
Receipt Date:	20110729
Manifest ID:	004627361FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	CAT080016116
Trans 2 Name:	NIETO & SONS TRUCKING INC
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.105
Waste Quantity:	25
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2017
Gen EPA ID:	CAL000332185
Shipment Date:	20170803
Creation Date:	7/19/2018 18:30:21
Receipt Date:	20170809
Manifest ID:	010650284FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE

VISION OF SUCCESS INC, 18605 MONTEREY (Continued) **S113152494**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVT330010000
Trans Name:	US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D018
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	0.025
Waste Quantity:	50
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170803
Creation Date:	5/29/2018 18:30:43
Receipt Date:	20170810
Manifest ID:	010650285FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.021
Waste Quantity:	5
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170613
Creation Date:	7/27/2018 18:30:18
Receipt Date:	20170621
Manifest ID:	009695305FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVT330010000
Trans Name:	US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids

VISION OF SUCCESS INC, 18605 MONTEREY (Continued) **S113152494**

RCRA Code:	D018
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	0.0375
Waste Quantity:	75
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170613
Creation Date:	5/17/2018 18:31:33
Receipt Date:	20170622
Manifest ID:	009695306FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	CAT080016116
Trans 2 Name:	NIETO AND SONS TRUCKING INC
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.168
Waste Quantity:	40
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2014
Gen EPA ID:	CAL000332185
Shipment Date:	20140909
Creation Date:	2/25/2019 8:33:50
Receipt Date:	20140917
Manifest ID:	007626297FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVT330010000
Trans Name:	US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D018
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

VISION OF SUCCESS INC, 18605 MONTEREY (Continued) **S113152494**

Quantity Tons:	0.0375
Waste Quantity:	75
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2009
Gen EPA ID:	CAL000332185
Shipment Date:	20091215
Creation Date:	3/5/2010 18:31:15
Receipt Date:	20091218
Manifest ID:	002121842FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	CAT080016116
Trans 2 Name:	NIETO & SONS TRUCKING
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.21
Waste Quantity:	50
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091215
Creation Date:	6/30/2010 18:30:18
Receipt Date:	20091229
Manifest ID:	002121841FLE
Trans EPA ID:	CAR000183913
Trans Name:	BELSHIRE
Trans 2 EPA ID:	CAD981412356
Trans 2 Name:	PACIFIC TRANS ENVIRONMENTAL SERVICES INC
TSDF EPA ID:	NVT330010000
Trans Name:	US ECOLOGY NEVADA OPERATIONS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P

VISION OF SUCCESS INC, 18605 MONTEREY (Continued) **S113152494**

Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:
Name: VISION OF SUCCESS INC, 18605 MONTEREY
Address: 18605 MONTEREY ST
City,State,Zip: MORGAN HILL, CA 95037
Site ID: 425150
CERS ID: 10741612
CERS Description: Chemical Storage Facilities

Coordinates:
Site ID: 425150
Facility Name: Vision of Success Inc, 18605 Monterey
Env Int Type Code: HMBP
Program ID: 10741612
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.144330
Longitude: -121.664960

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Santa Clara County Environmental Health
Entity Title: Not reported
Affiliation Address: 1555 Berger Drive, Suite 300
Affiliation City: San Jose
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95112-2716
Affiliation Phone: (408) 918-3400

Affiliation Type Desc: Environmental Contact
Entity Name: BEJAN FARAHBAKHSH
Entity Title: Not reported
Affiliation Address: 1575 Treat Blvd Suite 215
Affiliation City: Walnut Creek
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94598
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Vision of Success, Inc.
Entity Title: Not reported
Affiliation Address: 1575 Treat Blvd Suite 215
Affiliation City: Walnut Creek
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94598
Affiliation Phone: (925) 785-4950

Affiliation Type Desc: Property Owner
Entity Name: BPWCP,LLC

VISION OF SUCCESS INC, 18605 MONTEREY (Continued) **S113152494**

Entity Title:	Not reported
Affiliation Address:	4 Centerpoint Drive
Affiliation City:	La Palma
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	90623
Affiliation Phone:	(415) 902-5089
Affiliation Type Desc:	Operator
Entity Name:	Vision of Success, 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:	(925) 785-4950
Affiliation Type Desc:	Document Preparer
Entity Name:	Bejan Farahbakhsh
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1575 Treat Blvd Suite 215
Affiliation City:	Walnut Creek
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94598
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Bejan Farahbakhsh
Entity Title:	Operator
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	Vision of Success Inc., 18605 Monterey
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

VISION OF SUCCESS INC, 18605 MONTEREY (Continued) **S113152494**

HWTS:

Name:	MORGAN HILL FUEL LP
Address:	18605 MONTEREY ST
Address 2:	Not reported
City,State,Zip:	MORGAN HILL, CA 950373027
EPA ID:	CAL000332185
Inactive Date:	06/30/2020
Create Date:	04/30/2008
Last Act Date:	01/04/2021
Mailing Name:	Not reported
Mailing Address:	18605 MONTEREY RD
Mailing Address 2:	Not reported
Mailing City,State,Zip:	MORGAN HILL, CA 950373027
Owner Name:	MORGAN HILL FUEL LP
Owner Address:	18605 MONTEREY ST
Owner Address 2:	Not reported
Owner City,State,Zip:	MORGAN HILL, CA 950373027
Contact Name:	NICK NICOLA
Contact Address:	18605 MONTEREY RD
Contact Address 2:	Not reported
City,State,Zip:	MORGAN HILL, CA 95037

NAICS:

EPA ID:	CAL000332185
Create Date:	2008-04-30 09:00:07.887
NAICS Code:	44719
NAICS Description:	Other Gasoline Stations
Issued EPA ID Date:	2008-04-30 09:00:07.87000
Inactive Date:	2020-06-30 00:00:00
Facility Name:	MORGAN HILL FUEL LP
Facility Address:	18605 MONTEREY ST
Facility Address 2:	Not reported
Facility City:	MORGAN HILL
Facility County:	Not reported
Facility State:	CA
Facility Zip:	950373027

C9 **MORGAN HILL FUEL LP** **RCRA NonGen / NLR** **1024820102**
NW **18605 MONTEREY ST** **CAL000332185**
< 1/8 **MORGAN HILL, CA 95037**
0.035 mi.
185 ft. **Site 2 of 2 in cluster C**

Relative:
Higher

Actual:
355 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:		2008-04-30 00:00:00.0
Handler Name:	MORGAN HILL FUEL LP	
Handler Address:		18605 MONTEREY ST
Handler City,State,Zip:		MORGAN HILL, CA 95037-3027
EPA ID:		CAL000332185
Contact Name:		NICK NICOLA
Contact Address:		18605 MONTEREY RD
Contact City,State,Zip:		MORGAN HILL, CA 95037
Contact Telephone:		408-778-0329
Contact Fax:		408-778-0347
Contact Email:		NICKSARCO@COMCAST.NET
Contact Title:		Not reported
EPA Region:		09

MORGAN HILL FUEL LP (Continued) **1024820102**

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:	18605 MONTEREY RD
Mailing City,State,Zip:	MORGAN HILL, CA 95037-3027
Owner Name:	MORGAN HILL FUEL LP
Owner Type:	Other
Operator Name:	NICK NICOLA
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

MORGAN HILL FUEL LP (Continued) **1024820102**

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:	2018-09-05 20:30:18.0
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:	MORGAN HILL FUEL LP
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	18605 MONTEREY ST
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037-3027
Owner/Operator Telephone:	408-778-0329
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	NICK NICOLA
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	18605 MONTEREY RD
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	408-778-0329
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2008-04-30 00:00:00.0
Handler Name: MORGAN HILL FUEL LP	
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:	44719
NAICS Description:	OTHER GASOLINE STATIONS

MORGAN HILL FUEL LP (Continued) **1024820102**

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

B10 **D & T CONSTRUCTION CO.** **SWEEPS UST** **S101625230**
SW **18375 OLD MONTEREY RD** **HIST UST** **N/A**
< 1/8 **MORGAN HILL, CA 95037** **CA FID UST**
0.052 mi.
275 ft. **Site 2 of 3 in cluster B**

Relative:
Lower

Actual:
350 ft.

SWEEPS UST:

Name:	D & T CONSTRUCTION CO.
Address:	18375 OLD MONTEREY RD
City:	MORGAN HILL
Status:	Not reported
Comp Number:	783
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	49-000-000783-000001
Tank Status:	Not reported
Capacity:	500
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	1

Name:	D & T CONSTRUCTION CO.
Address:	18375 OLD MONTEREY RD
City:	MORGAN HILL
Status:	Not reported
Comp Number:	783
Number:	Not reported
Board Of Equalization:	44-025923
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-004-000783-000001
Tank Status:	Not reported
Capacity:	500
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	1

HIST UST:
Name: D AND T CONSTRUCTION CO

D & T CONSTRUCTION CO. (Continued) **S101625230**

Address:	18375 OLD MONTEREY RD
City,State,Zip:	MORGAN HILL, CA 95037
File Number:	0002D22C
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002D22C.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:

CA FID UST:

Facility ID:	43011903
Regulated By:	UTNKI
Regulated ID:	00000783
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	4087797916
Mail To:	Not reported
Mailing Address:	P O BOX
Mailing Address 2:	Not reported
Mailing City,St,Zip:	MORGAN HILL 95037
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

B11 **D & T CONSTRUCTION CO.** **HIST UST** **U001601526**
SW **18375 OLD MONTEREY RD** **N/A**
< 1/8 **MORGAN HILL, CA 95037**
0.052 mi.
275 ft. **Site 3 of 3 in cluster B**

Relative: HIST UST:
Lower

Name:	D & T CONSTRUCTION CO.
Address:	18375 OLD MONTEREY RD
City,State,Zip:	MORGAN HILL, CA 95037
File Number:	Not reported
URL:	Not reported

Actual:
350 ft.

D & T CONSTRUCTION CO. (Continued) **U001601526**

Region:	STATE
Facility ID:	00000000783
Facility Type:	Other
Other Type:	CONST. YARD
Contact Name:	Not reported
Telephone:	4087797916
Owner Name:	D & T CONSTRUCTION CO.
Owner Address:	18375 OLD MONTEREY RD.
Owner City,St,Zip:	MORGAN HILL, CA 95037
Total Tanks:	0001
Tank Num:	001
Container Num:	#1
Year Installed:	Not reported
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	None

D12 **BIG 5 SPORTING GOODS #149** **CUPA Listings** **S121287925**
North **150 COCHRANE RD** **N/A**
< 1/8 **MORGAN HILL, CA 95037**
0.123 mi.
648 ft. **Site 1 of 2 in cluster D**

Relative: **Higher**
Actual: **358 ft.**

CUPA SANTA CLARA:

Name:	BIG 5 SPORTING GOODS #149
Address:	150 COCHRANE RD
City,State,Zip:	MORGAN HILL, CA 95037
Region:	SANTA CLARA
PE#:	2202
Program Description:	GENERATES < 100 KG/YR
Program Identifier:	DEH PERMIT-HAZ WASTE GENERATOR PROGRAM
Latitude:	37.1497546
Longitude:	-121.6547624
Record ID:	PR0428510
Facility ID:	FA0285816

D13 **WALMART SUPERCENTER #5766** **CERS HAZ WASTE** **S113178881**
North **170 COCHRANE RD** **CUPA Listings** **N/A**
1/8-1/4 **MORGAN HILL, CA 95037** **HAZNET**
0.154 mi. **CERS**
811 ft. **Site 2 of 2 in cluster D** **HWTS**

Relative: **Higher**
Actual: **359 ft.**

CERS HAZ WASTE:

Name:	WALMART #5766
Address:	170 COCHRANE RD
City,State,Zip:	MORGAN HILL, CA 95037
Site ID:	407324
CERS ID:	10149235
CERS Description:	Hazardous Waste Generator

CUPA SANTA CLARA:

Name:	WALMART #5766
Address:	170 COCHRANE RD

WALMART SUPERCENTER #5766 (Continued) **S113178881**

City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: 2205
Program Description: GENERATES 100 KG YR TO <5 TONS/YR
Program Identifier: DEH PERMIT-HAZ WASTE GENERATOR PROGRAM
Latitude: 37.1471686
Longitude: -121.6614032
Record ID: PR0391101
Facility ID: FA0265135

Name: WALMART #5766
Address: 170 COCHRANE RD
City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: Not reported
Program Description: HMBP FACILITY, 4-6 CHEMICALS
Program Identifier: DEH PERMIT-HAZ MAT BUSINESS PLAN PROGRAM
Latitude: 37.1471686
Longitude: -121.6614032
Record ID: PR0392117
Facility ID: FA0265135

HAZNET:
Name: WALMART SUPERCENTER #5766
Address: 170 COCHRANE RD
Address 2: Not reported
City,State,Zip: MORGAN HILL, CA 727128041
Contact: ROSE ARNOLD
Telephone: 4792778972
Mailing Name: Not reported
Mailing Address: P.O. BOX 8041

Year: 2019
Gepaid: CAR000202424
TSD EPA ID: CAD008364432
CA Waste Code: 792 - Liquids with pH <= 2 with metals
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.00050

Year: 2019
Gepaid: CAR000202424
TSD EPA ID: NVD980895338
CA Waste Code: 352 - Other organic solids
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.12250

Year: 2019
Gepaid: CAR000202424
TSD EPA ID: NVD980895338
CA Waste Code: 791 - Liquids with pH <= 2
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.01450

Year: 2019

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Gepaid:	CAR000202424
TSD EPA ID:	NVD980895338
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.13400
Year:	2019
Gepaid:	CAR000202424
TSD EPA ID:	NVD980895338
CA Waste Code:	122 - Alkaline solution without metals pH >= 12.5
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.12050
Year:	2019
Gepaid:	CAR000202424
TSD EPA ID:	CAD008364432
CA Waste Code:	311 - Pharmaceutical waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.00450
Year:	2019
Gepaid:	CAR000202424
TSD EPA ID:	CAD008364432
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.20800
Year:	2019
Gepaid:	CAR000202424
TSD EPA ID:	NVD980895338
CA Waste Code:	214 - Unspecified solvent mixture
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.00200
Year:	2019
Gepaid:	CAR000202424
TSD EPA ID:	NVD980895338
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.01500
Year:	2019
Gepaid:	CAR000202424
TSD EPA ID:	CAD008364432
CA Waste Code:	791 - Liquids with pH <= 2
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.04750

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Click this hyperlink while viewing on your computer to access
129 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	2011
Gen EPA ID:	CAR000202424
Shipment Date:	20111222
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000048552DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U154
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.004
Waste Quantity:	8
Quantity Unit:	P
Additional Code 1:	U002
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20111222
Creation Date:	7/19/2012 22:00:21
Receipt Date:	20120104
Manifest ID:	000048552DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U154
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	U002
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Shipment Date:	20111222
Creation Date:	7/19/2012 22:00:21
Receipt Date:	20120104
Manifest ID:	000048552DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D039
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.007
Waste Quantity:	14
Quantity Unit:	P
Additional Code 1:	D035
Additional Code 2:	D022
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20111222
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000048552DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.075
Waste Quantity:	150
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20111222
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000048552DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20111222
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000048552DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D011
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	D008
Additional Code 2:	D007
Additional Code 3:	D006
Additional Code 4:	D005
Additional Code 5:	Not reported
Shipment Date:	20111218
Creation Date:	5/24/2012 20:30:15
Receipt Date:	20120110
Manifest ID:	005070887FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OHD083377010
Trans Name:	ENVIRONMENTAL ENTERPRISES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	311 - Pharmaceutical waste
RCRA Code:	P001

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20111218
Creation Date:	5/24/2012 20:30:15
Receipt Date:	20120110
Manifest ID:	005070887FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OHD083377010
Trans Name:	ENVIRONMENTAL ENTERPRISES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	311 - Pharmaceutical waste
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.001
Waste Quantity:	2
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20111218
Creation Date:	5/24/2012 20:30:15
Receipt Date:	20120110
Manifest ID:	005070887FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OHD083377010
Trans Name:	ENVIRONMENTAL ENTERPRISES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	311 - Pharmaceutical waste
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20111218
Creation Date:	5/24/2012 20:30:15
Receipt Date:	20120110
Manifest ID:	005070887FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OHD083377010
Trans Name:	ENVIRONMENTAL ENTERPRISES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	311 - Pharmaceutical waste
RCRA Code:	D010
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2014
Gen EPA ID:	CAR000202424
Shipment Date:	20141229
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20150107
Manifest ID:	006445460FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Shipment Date:	20141229
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20150107
Manifest ID:	006445460FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0205
Waste Quantity:	41
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20141217
Creation Date:	6/24/2015 22:15:33
Receipt Date:	20141230
Manifest ID:	007353483FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.007
Waste Quantity:	14
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported

Shipment Date:	20141217
Creation Date:	6/24/2015 22:15:33
Receipt Date:	20141230
Manifest ID:	007353483FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0325
Waste Quantity:	65
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20141217
Creation Date:	6/24/2015 22:15:33
Receipt Date:	20141230
Manifest ID:	007353483FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

Shipment Date:	20141217
Creation Date:	6/24/2015 22:15:33
Receipt Date:	20141230
Manifest ID:	007353483FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Meth Code:	H121 - Neutralization Only
Quantity Tons:	0.006
Waste Quantity:	12
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141201
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	007311772FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20141201
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	007311772FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H121 - Neutralization Only
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Additional Code 5:	Not reported
Shipment Date:	20141201
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	007311772FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20141201
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007311772FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2017
Gen EPA ID:	CAR000202424
Shipment Date:	20171229

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Creation Date:	9/12/2018 18:30:12
Receipt Date:	20180207
Manifest ID:	010869219FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U154
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	U002
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

Shipment Date:	20171229
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	010869219FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.052
Waste Quantity:	104
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171229
Creation Date:	9/12/2018 18:30:12
Receipt Date:	20180207
Manifest ID:	010869219FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS

WALMART SUPERCENTER #5766 (Continued) **S113178881**

TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	311 - Pharmaceutical waste
RCRA Code:	P001
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171229
Creation Date:	9/12/2018 18:30:12
Receipt Date:	20180207
Manifest ID:	010869219FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0145
Waste Quantity:	29
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20171229
Creation Date:	9/12/2018 18:30:12
Receipt Date:	20180207
Manifest ID:	010869219FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No

WALMART SUPERCENTER #5766 (Continued) **S113178881**

	Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171229
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	010869219FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D001
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171212
Creation Date:	8/7/2018 18:30:18
Receipt Date:	20180115
Manifest ID:	010685351FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0315
Waste Quantity:	63
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171212
Creation Date:	8/7/2018 18:30:18
Receipt Date:	20180115
Manifest ID:	010685351FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	311 - Pharmaceutical waste
RCRA Code:	U129
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	D024
Additional Code 2:	D011
Additional Code 3:	D010
Additional Code 4:	D007
Additional Code 5:	Not reported
Shipment Date:	20171212
Creation Date:	8/7/2018 18:30:18
Receipt Date:	20180115
Manifest ID:	010685351FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0065
Waste Quantity:	13
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20171212
Creation Date:	8/7/2018 18:30:18
Receipt Date:	20180115
Manifest ID:	010685351FLE

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	CAD008364432
Trans Name:	RHO CHEM LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	311 - Pharmaceutical waste
RCRA Code:	P001
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2016
Gen EPA ID:	CAR000202424
Shipment Date:	20151230
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1875
Waste Quantity:	375
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151230
Creation Date:	3/22/2016 22:15:58
Receipt Date:	20160114
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0135
Waste Quantity:	27
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20151230
Creation Date:	3/22/2016 22:15:58
Receipt Date:	20160114
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.012
Waste Quantity:	24
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151230
Creation Date:	3/22/2016 22:15:58
Receipt Date:	20160114
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.016
Waste Quantity:	32
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151230
Creation Date:	3/22/2016 22:15:58
Receipt Date:	20160114
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.008
Waste Quantity:	16
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20151119
Creation Date:	1/23/2016 22:15:12
Receipt Date:	20151208
Manifest ID:	008620068FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0845
Waste Quantity:	169
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151119
Creation Date:	1/23/2016 22:15:12
Receipt Date:	20151208
Manifest ID:	008620068FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0045
Waste Quantity:	9
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20151119
Creation Date:	1/23/2016 22:15:12
Receipt Date:	20151208
Manifest ID:	008620068FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20151105
Creation Date:	1/11/2016 22:16:40
Receipt Date:	20151121

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Manifest ID:	008620018FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.007
Waste Quantity:	14
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

Shipment Date:	20151105
Creation Date:	1/11/2016 22:16:40
Receipt Date:	20151121
Manifest ID:	008620018FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0065
Waste Quantity:	13
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported

Additional Info:

Year:	2012
Gen EPA ID:	CAR000202424

Shipment Date:	20121227
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	005494869FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.0395
Waste Quantity:	79
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20121227
Creation Date:	5/11/2013 22:15:06
Receipt Date:	20130118
Manifest ID:	005494869FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0055
Waste Quantity:	11
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20121227
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	005494869FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	D022

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20121227
Creation Date:	5/11/2013 22:15:06
Receipt Date:	20130118
Manifest ID:	005494869FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.016
Waste Quantity:	32
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20121227
Creation Date:	5/11/2013 22:15:06
Receipt Date:	20130118
Manifest ID:	005494869FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20121227
Creation Date:	5/11/2013 22:15:06
Receipt Date:	20130118
Manifest ID:	005494869FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	D026
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.007
Waste Quantity:	14
Quantity Unit:	P
Additional Code 1:	D008
Additional Code 2:	D007
Additional Code 3:	D006
Additional Code 4:	D005
Additional Code 5:	Not reported
Shipment Date:	20121126
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	005807142FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20121126
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	005807142FLE

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.0285
Waste Quantity:	57
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20121126
Creation Date:	4/10/2013 22:15:15
Receipt Date:	20121210
Manifest ID:	005807142FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20121126
Creation Date:	4/10/2013 22:15:15
Receipt Date:	20121210
Manifest ID:	005807142FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2013
Gen EPA ID:	CAR000202424
Shipment Date:	20131231
Creation Date:	6/13/2014 22:15:06
Receipt Date:	20140120
Manifest ID:	006231766FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.0595
Waste Quantity:	119
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131231
Creation Date:	6/13/2014 22:15:06
Receipt Date:	20140120
Manifest ID:	006231766FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20131231
Creation Date:	6/13/2014 22:15:06
Receipt Date:	20140120
Manifest ID:	006231766FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.015
Waste Quantity:	30
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131231
Creation Date:	6/13/2014 22:15:06
Receipt Date:	20140120
Manifest ID:	006231766FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Shipment Date:	20131216
Creation Date:	5/14/2014 22:15:13
Receipt Date:	20140102
Manifest ID:	006231738FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.008
Waste Quantity:	16
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20131216
Creation Date:	5/14/2014 22:15:13
Receipt Date:	20140102
Manifest ID:	006231738FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0055
Waste Quantity:	11
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

Shipment Date:	20131216
Creation Date:	5/14/2014 22:15:13
Receipt Date:	20140102
Manifest ID:	006231738FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.0455
Waste Quantity:	91
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131216
Creation Date:	5/14/2014 22:15:13
Receipt Date:	20140102
Manifest ID:	006231738FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20131204
Creation Date:	5/20/2014 22:14:51
Receipt Date:	20131226
Manifest ID:	006231705FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	D026
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No

WALMART SUPERCENTER #5766 (Continued) **S113178881**

	Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	D024
Additional Code 2:	D018
Additional Code 3:	D009
Additional Code 4:	D007
Additional Code 5:	Not reported
Shipment Date:	20131204
Creation Date:	5/20/2014 22:14:51
Receipt Date:	20131226
Manifest ID:	006231705FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

Additional Info:

Year:	2010
Gen EPA ID:	CAR000202424
Shipment Date:	20101217
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007751896JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D011
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.008
Waste Quantity:	16

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Quantity Unit:	P
Additional Code 1:	D008
Additional Code 2:	D007
Additional Code 3:	D006
Additional Code 4:	D005
Additional Code 5:	Not reported
Shipment Date:	20101217
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007751896JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U154
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	U002
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20101217
Creation Date:	2/19/2011 18:30:32
Receipt Date:	20101222
Manifest ID:	007751896JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D039
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.018
Waste Quantity:	36
Quantity Unit:	P
Additional Code 1:	D035
Additional Code 2:	D022
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Shipment Date:	20101217
Creation Date:	2/19/2011 18:30:32
Receipt Date:	20101222
Manifest ID:	007751896JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U154
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7
Quantity Unit:	P
Additional Code 1:	U002
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

Shipment Date:	20101217
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007751896JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20101217
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007751896JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.086
Waste Quantity:	172
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101217
Creation Date:	2/19/2011 18:30:32
Receipt Date:	20101222
Manifest ID:	007751896JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0065
Waste Quantity:	13
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101207
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007751724JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1235
Waste Quantity:	247
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101207
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007751724JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101207
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007751724JJK
Trans EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	CAR000179382
Trans 2 Name:	ENV ENVIRONMENTAL INTERNATIONAL INC
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2009
Gen EPA ID:	CAR000202424
Shipment Date:	20091222
Creation Date:	7/20/2010 18:30:24
Receipt Date:	20100110
Manifest ID:	006435264JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D039
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.017
Waste Quantity:	34
Quantity Unit:	P
Additional Code 1:	D035
Additional Code 2:	D022
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091222
Creation Date:	7/20/2010 18:30:24
Receipt Date:	20100110
Manifest ID:	006435264JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U154
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0085
Waste Quantity:	17
Quantity Unit:	P
Additional Code 1:	U002
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Shipment Date:	20091222
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006435264JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H111 - Stabilization Or Chemical Fixation Prior To Disposal At Another Site
Quantity Tons:	0.0575
Waste Quantity:	115
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20091209
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006435163JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.043
Waste Quantity:	86
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20091209
Creation Date:	6/29/2010 18:30:46
Receipt Date:	20091220
Manifest ID:	006435163JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D039
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.013
Waste Quantity:	26
Quantity Unit:	P
Additional Code 1:	D035
Additional Code 2:	D022
Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20091209
Creation Date:	6/29/2010 18:30:46
Receipt Date:	20091220
Manifest ID:	006435163JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U154
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.008
Waste Quantity:	16
Quantity Unit:	P
Additional Code 1:	U002
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

Shipment Date:	20091209
Creation Date:	6/29/2010 18:30:46
Receipt Date:	20091220
Manifest ID:	006435163JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0445
Waste Quantity:	89
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091125
Creation Date:	6/29/2010 18:30:32
Receipt Date:	20091212
Manifest ID:	006435065JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1005
Waste Quantity:	201
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091125
Creation Date:	6/29/2010 18:30:32
Receipt Date:	20091212
Manifest ID:	006435065JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D039
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	D035
Additional Code 2:	D022

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Additional Code 3:	D001
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091125
Creation Date:	6/29/2010 18:30:32
Receipt Date:	20091212
Manifest ID:	006435065JJK
Trans EPA ID:	CAR000164012
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	WAD991281767
Trans Name:	BURLINGTON ENVIRONMENTAL LLC KENT FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2015
Gen EPA ID:	CAR000202424
Shipment Date:	20151230
Creation Date:	3/22/2016 22:15:58
Receipt Date:	20160114
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0135
Waste Quantity:	27
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Shipment Date:	20151230
Creation Date:	3/22/2016 22:15:58
Receipt Date:	20160114
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.016
Waste Quantity:	32
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151230
Creation Date:	3/22/2016 22:15:58
Receipt Date:	20160114
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.008
Waste Quantity:	16
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005
Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported

Shipment Date:	20151230
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1875
Waste Quantity:	375
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151230
Creation Date:	3/22/2016 22:15:58
Receipt Date:	20160114
Manifest ID:	008630465FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.012
Waste Quantity:	24
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151119
Creation Date:	1/23/2016 22:15:12
Receipt Date:	20151208
Manifest ID:	008620068FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0845
Waste Quantity:	169
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151119
Creation Date:	1/23/2016 22:15:12
Receipt Date:	20151208
Manifest ID:	008620068FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0045
Waste Quantity:	9
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20151119
Creation Date:	1/23/2016 22:15:12
Receipt Date:	20151208
Manifest ID:	008620068FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D022
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	D018
Additional Code 2:	D005

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Additional Code 3:	D002
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20151105
Creation Date:	1/11/2016 22:16:40
Receipt Date:	20151121
Manifest ID:	008620018FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U159
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.007
Waste Quantity:	14
Quantity Unit:	P
Additional Code 1:	U154
Additional Code 2:	D035
Additional Code 3:	D018
Additional Code 4:	D001
Additional Code 5:	Not reported
Shipment Date:	20151105
Creation Date:	1/11/2016 22:16:40
Receipt Date:	20151121
Manifest ID:	008620018FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1395
Waste Quantity:	279
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CERS:

Name:	WALMART #5766
Address:	170 COCHRANE RD

WALMART SUPERCENTER #5766 (Continued) **S113178881**

City,State,Zip: MORGAN HILL, CA 95037
Site ID: 407324
CERS ID: 10149235
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 407324
Site Name: Walmart #5766
Violation Date: 12-29-2015
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 02/02/2016. The facility's most recent HMBP submittal incorrectly identifies the business city site as "Santa Clara," rather than Morgan Hill.
Violation Division: Santa Clara County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 407324
Site Name: Walmart #5766
Violation Date: 12-29-2015
Citation: 22 CCR 12 66262.23(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)
Violation Description: Failure to properly complete the Hazardous Waste manifest.
Violation Notes: Returned to compliance on 02/02/2016. On the facility's uniform hazardous waste manifests, two waste streams are routinely listed as "non-RCRA hazardous waste, liquid (CA regulated)" and 'non-RCRA hazardous waste, solids (CA regulated). No additional description of the wastes are provided. Pursuant to CCR 66262.23(a)(5)(A), non-RCRA hazardous waste should be identified with a commonly recognized industrial name for the waste (e.g. "used oil") or a generic name for non-RCRA hazardous waste should be obtained from Appendix X when possible (e.g. acetic acid).
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 407324
Site Name: Walmart #5766
Violation Date: 12-29-2015
Citation: HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description: Haz Waste Generator Program - Abandonment/Illegal Disposal/Unauthorized Treatment - General
Violation Notes: Returned to compliance on 02/02/2016. The facility's current hazardous waste disposal practices were verbally explained and a walk-through example of the process was provided to the inspector during the inspection. With the exception of alcohol, the facility's current practice is to solidify all hazardous liquids (ex. bleach and shampoos) with Spill Magic (an absorbent) prior to disposal. G TreatmentG means any method, technique, or processG which is designed to change the physical, chemical, or biological character or composition of any hazardous waste or any material contained therein, or which removes or reduces its harmful properties or characteristics for any purpose (HSC 25123.5). The facilityG s container accumulation

WALMART SUPERCENTER #5766 (Continued) **S113178881**

practice allows solvents and flammable liquids to evaporate and other liquid residues to solidify prior to the facility making an G empty container determination.G Cease the practice of solidifying hazardous liquids prior to disposal, obtain an on-site hazardous waste treatment permit, [Truncated]

Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 407324
Site Name: Walmart #5766
Violation Date: 09-19-2019
Citation: 22 CCR 12 66262.23(a)(4) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)(4)
Violation Description: Failure to send a legible copy of each hazardous waste manifest to the Department within 30 days of each shipment of hazardous waste.
Violation Notes: Review of manifests in hazardous waste tracking system and discussion with staff indicates that generator copies of uniform manifests are not being submitted to DTSC as required. Pursuant to CCR 66262.23 (a)(4) "The generator of any hazardous or extremely hazardous waste to be transported off-site or into California shall...within 30 days of each shipment of hazardous waste submit to the Department a legible copy of each manifest used."
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 407324
Site Name: Walmart #5766
Violation Date: 12-29-2015
Citation: 22 CCR 12 66262.40(c) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(c)
Violation Description: Failure to determine if the waste generated is a hazardous waste and to maintain analysis results for three years.
Violation Notes: Returned to compliance on 01/28/2016. The facilityG s pharmacy and management staff stated that the facilityG s current practice is to dispose of unidentifiable, loose pills in the G Side AG compartment of the pharmaceutical waste container. G Side AG waste is only identified by California waste code 311 (Pharmaceutical Waste) on the facilityG s uniform hazardous waste manifests. The facilityG s pharmacy dispenses both RCRA and non-RCRA pharmaceuticals (CA-only regulated). A hazardous waste determination needs to be conducted on the unidentifiable, loose pills prior to disposal as non-RCRA pharmaceutical waste. Provide documentation to HMCD as to how the facility ensures that RCRA pharmaceutical wastes are not disposed of as non-RCRA pharmaceutical waste.
Violation Division: Santa Clara County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-17-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Facility is a retail store with a pharmacy located inside. Facility does not perform an automotive, paint mixing, or photo processing

WALMART SUPERCENTER #5766 (Continued) **S113178881**

services at this location. Hazardous waste routinely generated on site include, but are not limited, to: State-regulated toxics and corrosives Flammable liquids Waste Aerosols Flammable solids Corrosive/Reactive solids Damaged lead acid batteries RCRA pharmaceuticals Items such as customer returns, damaged products, and leaking containers are transferred to hazardous waste accumulation area and are sorted daily. Leaking containers will be placed in a bag with spill magic. Employees will scan the product using a handheld scanner (known as TC70) to determine the management of the product. The scanner will prompt the employee to determine the condition of the product and designate the appropriate waste container (i.e. toxic, flammable, corrosive). Employees are trained to contact Stericycle helpline if there is an item that is [Truncated]

Eval Division: Santa Clara County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-29-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On-site to conduct a routine hazardous materials business plan (HMBP) inspection with Store Manager, Sigrunn Nydal. The following hazardous materials/wastes were reported above HMBP reportable thresholds on the facility's most recent HMBP submittal, but were below HMBP reportable thresholds during inspection: - liquified petroleum gas - helium compressed gas cylinders - waste car batteries (sulfuric acid) - operational equipment batteries NOTES: - CERS ID: 10149235 - Most recent HMBP submittal: 7/24/2015 - Initial training for new employees and annual refresher training for all employees in safety procedures in the event of a release or threatened release of a hazardous material is provided. A written log of each employee, the employeeG s title and job description, the date the training was provided, and the description of the training is documented through the facilityG s computerized training system and was reviewed during the inspection.

Eval Division: Santa Clara County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-29-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On-site to conduct a routine hazardous waste inspection with Store Manager, Sigrunn Nydal. The facility is a franchised, retail establishment with an on-site pharmacy. No auto repair, used oil collection and recycling, photo-development, or medical services occur on-site. The following waste streams were observed during the inspection: PHARMACY AREA: - 1 x blue, dual-divided, plastic container is located in the pharmacy. The two compartments are labeled G Side AG and G Side B.G Side B of the container is for empty, Warfarin and Cumadin (P001) bottles and loose pills. The bottles are marked with the accumulation date. Side A of the container is for all other loose pills (i.e. all pills, except Warfarin and Cumadin) and waste pharmaceuticals. - If an identifiable pill is discovered and determined to be a waste, the pill is immediately bagged, labeled with the product name and accumulation date, and deposited into the plastic

WALMART SUPERCENTER #5766 (Continued) **S113178881**

container. Empty, Warfarin and Cumadin bottles [Truncated]
Eval Division: Santa Clara County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-17-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Facility is a retail store storing the following hazardous materials above HMBP reportable quantities: Spent lead-acid batteries Propane (non-retail) R404A (refrigeration) Helium HMBP was submitted through CERS on 02/26/2019 and accepted. Property is owned by Walmart Real Estate Business Trust. UNRESOLVED ISSUE: Training documentation to verify that employees have been training in hazardous materials handling and spill response was not available for review at time of inspection. Mr. Smith was able to verify that a web-based training is assigned annually and completed, but was not able to access training record for employees besides himself. There was no staff on-site to access the training records, but indicated that the training reports are accessible at the store level. Please provide a copy of the aforementioned training to determine the facility is in compliance with HMBP training requirements as outlined in HSC 6.95 25505(a)(4).
Eval Division: Santa Clara County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 407324
Facility Name: Walmart #5766
Env Int Type Code: HMBP
Program ID: 10149235
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.149550
Longitude: -121.655300

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 702 Southwest 8th Street
Affiliation City: Bentonville
Affiliation State: AR
Affiliation Country: Not reported
Affiliation Zip: 72716-0500
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Walmart Inc.
Entity Title: Not reported
Affiliation Address: 702 Southwest 8th Street
Affiliation City: Bentonville
Affiliation State: AR
Affiliation Country: United States
Affiliation Zip: 72716-0500

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Affiliation Phone:	(479) 204-3911
Affiliation Type Desc:	Environmental Contact
Entity Name:	Sean Galli, Sr. Mgr. Environmental Health & Safety Compliance
Entity Title:	Not reported
Affiliation Address:	702 Southwest 8th Street
Affiliation City:	Bentonville
Affiliation State:	AR
Affiliation Country:	Not reported
Affiliation Zip:	72716-0500
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Santa Clara County Environmental Health
Entity Title:	Not reported
Affiliation Address:	1555 Berger Drive, Suite 300
Affiliation City:	San Jose
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95112-2716
Affiliation Phone:	(408) 918-3400
Affiliation Type Desc:	Identification Signer
Entity Name:	Sean Galli
Entity Title:	Sr. Mgr. Environmental Health & Safety Compliance
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Walmart 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:	(479) 204-3911
Affiliation Type Desc:	Parent Corporation
Entity Name:	Walmart
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	WALMART REAL ESTATE BUSINESS TRUST
Entity Title:	Not reported
Affiliation Address:	P.O. Box 8050 MS 0555
Affiliation City:	Bentonville

WALMART SUPERCENTER #5766 (Continued) **S113178881**

Affiliation State:	AR
Affiliation Country:	United States
Affiliation Zip:	72712
Affiliation Phone:	(479) 204-3911
Affiliation Type Desc:	Document Preparer
Entity Name:	Aptim Environmental & Infrastructure, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

HWTS:

Name:	WALMART SUPERCENTER #5766
Address:	170 COCHRANE RD
Address 2:	Not reported
City,State,Zip:	MORGAN HILL, CA 950370000
EPA ID:	CAR000202424
Inactive Date:	Not reported
Create Date:	11/30/2009
Last Act Date:	01/26/2021
Mailing Name:	ROSE ARNOLD
Mailing Address:	P.O. BOX 8041
Mailing Address 2:	MS 0505
Mailing City,State,Zip:	BENTONVILLE, AR 727128041
Owner Name:	WAL-MART STORES, INC
Owner Address:	P.O. BOX 8041
Owner Address 2:	MS 0505
Owner City,State,Zip:	BENTONVILLE, AR 727128041
Contact Name:	ROSE ARNOLD
Contact Address:	PO BOX 8041
Contact Address 2:	MS 0505
City,State,Zip:	BENTONVILLE, AR 727128041

NAICS:

EPA ID:	CAR000202424
Create Date:	2015-01-26 09:40:10.060
NAICS Code:	45291
NAICS Description:	Warehouse Clubs and Superstores
Issued EPA ID Date:	2009-11-30 10:15:49.99700
Inactive Date:	Not reported
Facility Name:	WALMART SUPERCENTER #5766
Facility Address:	170 COCHRANE RD
Facility Address 2:	Not reported
Facility City:	MORGAN HILL
Facility County:	Not reported
Facility State:	CA
Facility Zip:	950370000

14
NNW
1/8-1/4
0.161 mi.
852 ft.

MONUMENT CONSTRUCTION INC
520 COCHRANE CIR
MORGAN HILL, CA 95037

RCRA NonGen / NLR

1026490843
CAL000455580

Relative:
Higher

Actual:
357 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:	2020-07-10 00:00:00.0
Handler Name:	MONUMENT CONSTRUCTION INC
Handler Address:	520 COCHRANE CIR
Handler City,State,Zip:	MORGAN HILL, CA 95037
EPA ID:	CAL000455580
Contact Name:	MARCOS MORA
Contact Address:	16200 VINEYARD BLVD SUITE 100
Contact City,State,Zip:	MORGAN HILL, CA 95037
Contact Telephone:	408-595-1034
Contact Fax:	408-778-2548
Contact Email:	MMORA@TECHCONCORP.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:	16200 VINEYARD BLVD SUITE 100
Mailing City,State,Zip:	MORGAN HILL, CA 95037
Owner Name:	MONUMENT CONSTRUCTION INC
Owner Type:	Other
Operator Name:	MARCOS MORA
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

MONUMENT CONSTRUCTION INC (Continued) **1026490843**

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:	2020-08-14 15:10:36.0
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:	MONUMENT CONSTRUCTION INC
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	16200 VINEYARD BLVD SUITE 100
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	408-778-1350
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	MARCOS MORA
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	16200 VINEYARD BLVD SUITE 100
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	408-595-1034
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

MONUMENT CONSTRUCTION INC (Continued) **1026490843**

Historic Generators:
- Receive Date: 2020-07-10 00:00:00.0
- Handler Name: MONUMENT CONSTRUCTION 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: 561730
- NAICS Description: LANDSCAPING SERVICES

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

15
NNE
1/8-1/4
0.205 mi.
1080 ft.

CELLIANCE CORPORATION **CUPA Listings** **S121473331**
260 COCHRANE RD E **N/A**
MORGAN HILL, CA 95037

Relative: Higher

Actual: 361 ft.

CUPA SANTA CLARA:
- Name: CELLIANCE CORPORATION
- Address: 260 COCHRANE RD E
- City,State,Zip: MORGAN HILL, CA 95037
- Region: SANTA CLARA
- PE#: 2205
- Program Description: GENERATES 100 KG YR TO <5 TONS/YR
- Program Identifier: DEH PERMIT-HAZ WASTE GENERATOR PROGRAM
- Latitude: 37.146794
- Longitude: -121.661804
- Record ID: PR0378559
- Facility ID: FA0258504

16
SSW
1/8-1/4
0.219 mi.
1156 ft.

D'ARDENNE, CATHRINE **RCRA NonGen / NLR** **1024765335**
245 DEL MONTE CIRCLE **CAC002985204**
MORGAN HILL, CA 95037

Relative: Higher

Actual: 355 ft.

RCRA NonGen / NLR:
- Date Form Received by Agency: 2018-10-17 00:00:00.0
- Handler Name: D'ARDENNE, CATHRINE
- Handler Address: 245 DEL MONTE CIRCLE

D'ARDENNE, CATHRINE (Continued) **1024765335**

Handler City,State,Zip:	MORGAN HILL, CA 95037
EPA ID:	CAC002985204
Contact Name:	D'ARDENNE, CATHRINE
Contact Address:	245 DEL MONTE CIRCLE
Contact City,State,Zip:	MORGAN HILL, CA 95037
Contact Telephone:	408-390-6335
Contact Fax:	510-651-7702
Contact Email:	MICKIEL@PWSEI.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:	245 DEL MONTE CIRCLE
Mailing City,State,Zip:	MORGAN HILL, CA 95037
Owner Name:	D'ARDENNE, CATHRINE
Owner Type:	Other
Operator Name:	D'ARDENNE, CATHRINE
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

D'ARDENNE, CATHRINE (Continued) **1024765335**

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:	2018-11-20 16:29:54.0
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:	D'ARDENNE, CATHRINE
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	245 DEL MONTE CIRCLE
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	408-390-6335
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	D'ARDENNE, CATHRINE
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	245 DEL MONTE CIRCLE
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	408-390-6335
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2018-10-17 00:00:00.0
Handler Name: D'ARDENNE, CATHRINE	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No

D'ARDENNE, CATHRINE (Continued) **1024765335**

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

E17 **AMTECH MICROELECTRONICS INC** **CERS HAZ WASTE** **S118167708**
NNW **485 COCHRANE CIR** **CUPA Listings** **N/A**
1/8-1/4 **MORGAN HILL, CA 95037** **HAZNET**
0.220 mi. **NPDES**
1159 ft. **Site 1 of 3 in cluster E** **CIWQS**
HWTS

Relative:
Higher

Actual:
356 ft.

CERS HAZ WASTE:
Name: AMTECH MICROELECTRONICS INC
Address: 485 COCHRANE CIR
City,State,Zip: MORGAN HILL, CA 95037
Site ID: 277248
CERS ID: 10631230
CERS Description: Hazardous Waste Generator

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-06-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: On-site with Allen Huerta, Hazardous Materials Specialist II, to conduct a routine Hazardous Waste Generator Program inspection. Facility is a printed circuit board assembler. Facility walk-through was conducted with Chris Wright, Manufacturing Engineer. Facility operates under point of generation hazardous waste collection requirements. The following waste streams were observed: Spent IPA from ultrasonic machine Lead and lead-free solder contaminated solids Solder dross Waste lead and lead-free solder paste State ID CAL000407678 Facility operates under point-of-generation rules Document review included uniform manifests for the last 3 years Note: Facility stores 244cf cylinder of oxygen. Facility expressed interest in downsizing their container to be under HMBP thresholds (200cf). Notify me as soon as cylinder is downsized. Corrected on site: G036: CONTAINER MARKING: POINT OF GENERATION: Observed 2 containers of waste solder paste with no start date. [Truncated]
Eval Division: Santa Clara County Environmental Health
Eval Program: HW
Eval Source: CERS

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

Affiliation:

Affiliation Type Desc:	Identification Signer
Entity Name:	Chris Wright
Entity Title:	Manufacturing Engineer
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	AMTECH MICROELECTRONICS
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Santa Clara County Environmental Health
Entity Title:	Not reported
Affiliation Address:	1555 Berger Drive, Suite 300
Affiliation City:	San Jose
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95112-2716
Affiliation Phone:	(408) 918-3400

Affiliation Type Desc:	Environmental Contact
Entity Name:	Chris Wright
Entity Title:	Not reported
Affiliation Address:	485 Cochrane Circle
Affiliation City:	Morgan Hill
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95037
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	Walter Chavez
Entity Title:	Not reported
Affiliation Address:	485 Cochrane Circle
Affiliation City:	Morgan Hill
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95037
Affiliation Phone:	(408) 483-1922

Affiliation Type Desc:	Document Preparer
Entity Name:	Chris Wright
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 485 Cochrane Circle
Affiliation City: Morgan Hill
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95037
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: Amtech Microelectronics 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: (408) 612-8888

Affiliation Type Desc: Legal Owner
Entity Name: WAC Enterprises,LLC
Entity Title: Not reported
Affiliation Address: 485 Cochrane Circle
Affiliation City: Morgan Hill
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95037
Affiliation Phone: (408) 483-1922

CUPA SANTA CLARA:
Name: AMTECH MICROELECTRONICS INC
Address: 485 COCHRANE CL
City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: 2205
Program Description: GENERATES 100 KG YR TO <5 TONS/YR
Program Identifier: DEH PERMIT-HAZ WASTE GENERATOR PROGRAM
Latitude: 37.14705
Longitude: -121.6655
Record ID: PR0420748
Facility ID: FA0278548

HAZNET:
Name: AMTECH MICROELECTRONICS INC
Address: 485 COCHRANE CIR
Address 2: Not reported
City,State,Zip: MORGAN HILL, CA 950370000
Contact: CHRIS WRIGHT/MFG. ENG.
Telephone: 4086128888
Mailing Name: Not reported

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

Mailing Address: 485 COCHRANE CIRCLE

Year: 2018
Gepaid: CAL000407678
TSD EPA ID: CAD059494310
CA Waste Code: 343 - Unspecified organic liquid mixture
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.08500

Year: 2018
Gepaid: CAL000407678
TSD EPA ID: PAD089352983
CA Waste Code: 181 - Other inorganic solid waste
Disposal Method: H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Tons: 0.10250

Year: 2017
Gepaid: CAL000407678
TSD EPA ID: PAD089352983
CA Waste Code: 181 - Other inorganic solid waste
Disposal Method: H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Tons: 0.265

Year: 2016
Gepaid: CAL000407678
TSD EPA ID: PAD089352983
CA Waste Code: 181 - Other inorganic solid waste
Disposal Method: H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Tons: 0.105

Additional Info:
Year: 2017
Gen EPA ID: CAL000407678

Shipment Date: 20171023
Creation Date: 8/1/2018 18:30:18
Receipt Date: 20171103
Manifest ID: 017095266JJK
Trans EPA ID: CAR000253401
Trans Name: MINA INTERNATIONAL GROUP INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: PAD089352983
Trans Name: ALPHA RECYCLING SERVICES
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 181 - Other inorganic solid waste Organics
RCRA Code: Not reported
Meth Code: H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Quantity Tons: 0.015
Waste Quantity: 30
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171023
Creation Date:	8/1/2018 18:30:18
Receipt Date:	20171103
Manifest ID:	017095266JJK
Trans EPA ID:	CAR000253401
Trans Name:	MINA INTERNATIONAL GROUP INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	PAD089352983
Trans Name:	ALPHA RECYCLING SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Quantity Tons:	0.04
Waste Quantity:	80
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171023
Creation Date:	8/1/2018 18:30:18
Receipt Date:	20171103
Manifest ID:	017095266JJK
Trans EPA ID:	CAR000253401
Trans Name:	MINA INTERNATIONAL GROUP INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	PAD089352983
Trans Name:	ALPHA RECYCLING SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Quantity Tons:	0.015
Waste Quantity:	30
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170718
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170728
Manifest ID:	017095203JJK
Trans EPA ID:	CAR000253401
Trans Name:	MINA INTERNATIONAL GROUP INC

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	PAD089352983
Trans Name:	ALPHA RECYCLING SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Quantity Tons:	0.04
Waste Quantity:	80
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20170718
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170728
Manifest ID:	017095203JJK
Trans EPA ID:	CAR000253401
Trans Name:	MINA INTERNATIONAL GROUP INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	PAD089352983
Trans Name:	ALPHA RECYCLING SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Quantity Tons:	0.02
Waste Quantity:	40
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20170718
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170728
Manifest ID:	017095203JJK
Trans EPA ID:	CAR000253401
Trans Name:	MINA INTERNATIONAL GROUP INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	PAD089352983
Trans Name:	ALPHA RECYCLING SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

Quantity Tons:	0.04
Waste Quantity:	80
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170117
Creation Date:	5/9/2018 18:30:45
Receipt Date:	20170130
Manifest ID:	015964304JJK
Trans EPA ID:	CAR000253401
Trans Name:	MINA INTERNATIONAL GROUP INC
Trans 2 EPA ID:	PAD000512855
Trans 2 Name:	D & R TRANSPORTATION
TSDF EPA ID:	PAD089352983
Trans Name:	ALPHA RECYCLING SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Quantity Tons:	0.035
Waste Quantity:	70
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170117
Creation Date:	5/9/2018 18:30:45
Receipt Date:	20170130
Manifest ID:	015964304JJK
Trans EPA ID:	CAR000253401
Trans Name:	MINA INTERNATIONAL GROUP INC
Trans 2 EPA ID:	PAD000512855
Trans 2 Name:	D & R TRANSPORTATION
TSDF EPA ID:	PAD089352983
Trans Name:	ALPHA RECYCLING SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H010 - Metals Recovery Including Retoring,Smelting,Chemicals,Ect
Quantity Tons:	0.06
Waste Quantity:	120
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

NPDES:

Name:	AMTECH MICROELECTRONICS INC
Address:	485 COCHRANE CIR
City,State,Zip:	MORGAN HILL, CA 95037-2831
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 43NEC007431
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	09/09/2020
Operator Name:	AmTECH Microelectronics Inc
Operator Address:	485 Cochrane Cir
Operator City:	Morgan Hill
Operator State:	California
Operator Zip:	95037-2831

Name:	AMTECH MICROELECTRONICS INC
Address:	485 COCHRANE CIR
City,State,Zip:	MORGAN HILL, CA 95037-2831
Facility Status:	Active
NPDES Number:	CAS000001
Region:	2
Agency Number:	0
Regulatory Measure ID:	525353
Place ID:	Not reported
Order Number:	97-03-DWQ
WDID:	2 43NEC007431
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/09/2020
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	485 Cochrane Cir
Discharge Name:	AmTECH Microelectronics Inc
Discharge City:	Morgan Hill
Discharge State:	California
Discharge Zip:	95037-2831
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported

CIWQS:
Name: AMTECH MICROELECTRONICS INC
Address: 485 COCHRANE CIR
City,State,Zip: MORGAN HILL, CA 95037-2831
Agency: AmTECH Microelectronics Inc
Agency Address: 485 Cochrane Cir, Morgan Hill, CA 95037-2831
Place/Project Type: Industrial - Printed Circuit Boards
SIC/NAICS: 3672
Region: 2
Program: INDSTW
Regulatory Measure Status: Active
Regulatory Measure Type: Storm water industrial
Order Number: 2014-0057-DWQ
WDID: 2 43NEC007431
NPDES Number: CAS000001
Adoption Date: 01/01/1900
Effective Date: 09/09/2020
Termination Date: 01/01/1900
Expiration/Review Date: 01/01/1900
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 37.14708
Longitude: -121.66552

HWTS:
Name: AMTECH MICROELECTRONICS INC
Address: 485 COCHRANE CIR
Address 2: Not reported
City,State,Zip: MORGAN HILL, CA 95037
EPA ID: CAL000407678
Inactive Date: Not reported
Create Date: 06/11/2015
Last Act Date: 07/31/2020
Mailing Name: Not reported
Mailing Address: 485 COCHRANE CIRCLE
Mailing Address 2: Not reported
Mailing City,State,Zip: MORGAN HILL, CA 950370000
Owner Name: AMTECH MICROELECTRONICS INC
Owner Address: 485 COCHRANE CIRCLE
Owner Address 2: Not reported
Owner City,State,Zip: MORGAN HILL, CA 950370000
Contact Name: CHRIS WRIGHT/MFG. ENG.
Contact Address: 485 COCHRANE CIRCLE
Contact Address 2: Not reported
City,State,Zip: MORGAN HILL, CA 950370000

NAICS:
EPA ID: CAL000407678
Create Date: 2015-06-11 11:20:50.583

AMTECH MICROELECTRONICS INC (Continued) **S118167708**

NAICS Code:	334412
NAICS Description:	Bare Printed Circuit Board Manufacturing
Issued EPA ID Date:	2015-06-11 11:20:50.57700
Inactive Date:	Not reported
Facility Name:	AMTECH MICROELECTRONICS INC
Facility Address:	485 COCHRANE CIR
Facility Address 2:	Not reported
Facility City:	MORGAN HILL
Facility County:	Not reported
Facility State:	CA
Facility Zip:	95037

E18 **AMTECH MICROELECTRONICS INC** **RCRA NonGen / NLR** **1024850266**
NNW **485 COCHRANE CIR** **CAL000407678**
1/8-1/4 **MORGAN HILL, CA 95037**
0.220 mi.
1159 ft. **Site 2 of 3 in cluster E**

Relative: **Higher**

Actual: **356 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:	2015-06-11 00:00:00.0
Handler Name:	AMTECH MICROELECTRONICS INC
Handler Address:	485 COCHRANE CIR
Handler City,State,Zip:	MORGAN HILL, CA 95037
EPA ID:	CAL000407678
Contact Name:	CHRIS WRIGHT/MFG. ENG.
Contact Address:	485 COCHRANE CIRCLE
Contact City,State,Zip:	MORGAN HILL, CA 95037-0000
Contact Telephone:	408-612-8888
Contact Fax:	Not reported
Contact Email:	CHRIS.WRIGHT@AMTECHMICRO.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:	485 COCHRANE CIRCLE
Mailing City,State,Zip:	MORGAN HILL, CA 95037-0000
Owner Name:	AMTECH MICROELECTRONICS INC
Owner Type:	Other
Operator Name:	CHRIS WRIGHT/MFG. ENG.
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

AMTECH MICROELECTRONICS INC (Continued) **1024850266**

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:	2018-09-06 17:06:16.0
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:	AMTECH MICROELECTRONICS INC
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	485 COCHRANE CIRCLE
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037-0000
Owner/Operator Telephone:	408-612-8888
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported

AMTECH MICROELECTRONICS INC (Continued) **1024850266**

Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: CHRIS WRIGHT/MFG. ENG.
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 485 COCHRANE CIRCLE
Owner/Operator City,State,Zip: MORGAN HILL, CA 95037-0000
Owner/Operator Telephone: 408-612-8888
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 2015-06-11 00:00:00.0
Handler Name: AMTECH MICROELECTRONICS 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: 334412
NAICS Description: BARE PRINTED CIRCUIT BOARD MANUFACTURING

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

E19 **DEPRESSURIZED TECHNOLOGIES INT** **RCRA-SQG** **1000820468**
NNW **335 COCHRANE CIR** **FINDS** **CAD983665068**
1/4-1/2 **MORGAN HILL, CA 95037** **ECHO**
0.252 mi. **HAZNET**
1332 ft. **Site 3 of 3 in cluster E** **ICE**
HWP
Relative: Higher **CERS**
HWTS
Actual: 357 ft.

RCRA-SQG:
Date Form Received by Agency: 1996-09-01 00:00:00.0
Handler Name: DEPRESSURIZED TECHNOLOGIES INT
Handler Address: 335 COCHRANE CIR
Handler City,State,Zip: MORGAN HILL, CA 95037
EPA ID: CAD983665068
Contact Name: Not reported
Contact Address: Not reported

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

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:	Private
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:	2500 EL CAMINO REAL
Mailing City,State,Zip:	PALO ALTO, CA 94306
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:	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

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

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:	2002-06-27 03:36:45.0
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:	Owner
Owner/Operator Name:	THOITS BROS C/O RENAULT AND HANDLEY
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2500 EL CAMINO REAL
Owner/Operator City,State,Zip:	PALO ALTO, CA 94306
Owner/Operator Telephone:	415-321-3040
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1996-09-01 00:00:00.0
Handler Name:	DEPRESSURIZED TECHNOLOGIES INT
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

Receive Date:	1993-04-19 00:00:00.0
Handler Name:	DEPRESSURIZED TECHNOLOGIES INT
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

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 1999-03-04 00:00:00.0
Handler Name: DEPRESSURIZED TECHNOLOGIES INTERNATIONAL
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: 2000-10-12 00:00:00.0
Handler Name: DEPRESSURIZED TECHNOLOGIES INTERNATIONAL
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: 562
NAICS Description: WASTE MANAGEMENT AND REMEDIATION SERVICES

Facility Has Received Notices of Violation:
Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Container Use and Management
Date Violation was Determined: 1999-03-26 00:00:00.0
Actual Return to Compliance Date: 1999-03-30 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 1999-03-30 00:00:00.0
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

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

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

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

Violation Short Description:	TSD - Container Use and Management
Date Violation was Determined:	1999-03-26 00:00:00.0
Actual Return to Compliance Date:	1999-03-30 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	500
Date of Enforcement Action:	1999-04-19 00:00:00.0
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

Evaluation Action Summary:

Evaluation Date:	1999-03-26 00:00:00.0
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:	1999-03-30 00:00:00.0
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:	2003-01-28 00:00:00.0
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

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

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:	1999-03-26 00:00:00.0
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:	1999-03-30 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

FINDS:
Registry ID: 110000785561

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000820468
Registry ID:	110000785561
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110000785561
Name:	DEPRESSURIZED TECHNOLOGIES INT
Address:	335 COCHRANE CIR
City,State,Zip:	MORGAN HILL, CA 95037

HAZNET:

Name:	KOCO MOTION US / DINGS'
Address:	335 COCHRANE CIRCLE
Address 2:	Not reported
City,State,Zip:	MORGAN HILL, CA 95037
Contact:	KAREN MCGEOUGH
Telephone:	4086124970
Mailing Name:	Not reported
Mailing Address:	335 COCHRANE CIRCLE

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

Year: 2017
Gepaid: CAC002900737
TSD EPA ID: NVD980895338
CA Waste Code: 221 - Waste oil and mixed oil
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.2125

Additional Info:
Year: 2017
Gen EPA ID: CAC002900737

Shipment Date: 20170316
Creation Date: 5/11/2018 18:33:30
Receipt Date: 20170322
Manifest ID: 000160277DAT
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133
Trans 2 Name: SMITH SYSTEMS TRAN
TSDF EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MAN MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 221 - Waste oil and mixed oil
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.2125
Waste Quantity: 425
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

ICE:
Envirostor ID: 3001585
Name: DEPRESSURIZED TECHNOLOGIES INT
Address: 335 COCHRANE CIR
City,State,Zip: MORGAN HILL, CA 95037
EPA ID: CAD983665068
Site Type: INSPECTION
Facility Status: No Action

Inspection:
Action Type: Compliance Evaluation Inspection - Standardized Permit
Action Date: 01/28/2003
Violation Class: No Violations
RTC Date: Not reported

Action Type: Compliance Evaluation Inspection - Standardized Permit
Action Date: 03/26/1999
Violation Class: Minor
RTC Date: 03/30/1999

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

HWP:

EPA ID:	CAD983665068
Name:	DEPRESSURIZED TECHNOLOGIES INT
Address:	335 COCHRANE CIR
Cleanup Status:	CLOSED
Latitude:	37.14747
Longitude:	-121.6652
Facility Type:	Historical - Non-Operating
Facility Size:	Not reported
Supervisor:	Not reported
Site Code:	200961, 520008
Senate District:	17
Assembly District:	30
Public Information Officer:	Not reported
Commercial Offsite Facility Types:	Not reported
Quarterly Update:	A fixed steel pressurized gas tank was used to collect aerosol propellants from spent aerosol cans. This was a temporary authorization and was Clean Closed
Project Manager Lead:	Not reported
Project Manager:	Not reported
Permit Type:	Standardized
Permit Effective Date:	Not reported
Permit Expiration Date:	Not reported
Calenviroscreen Score:	46-50%
Total Planned Hours:	Not reported
Total Planned Amount:	Not reported
Total Actual Hours:	Not reported

Closure:

EPA ID:	CAD983665068
Facility Type:	Historical - Non-Operating
Facility Name:	DEPRESSURIZED TECHNOLOGIES INT
Project Manager:	Not reported
Project Manager Lead:	Not reported
Supervisor:	Not reported
Facility Size:	Not reported
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported
Type:	STND
Title Description:	Closure
Due Date:	Not reported
Comments:	Not reported
Unit Names:	Pressurized Gas Tank Stor Unit(DTI-S3)
Event Description:	Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date:	09/27/2002

EPA ID:	CAD983665068
Facility Type:	Historical - Non-Operating
Facility Name:	DEPRESSURIZED TECHNOLOGIES INT
Project Manager:	Not reported
Project Manager Lead:	Not reported
Supervisor:	Not reported
Facility Size:	Not reported
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

Type:	STND
Title Description:	Closure
Due Date:	Not reported
Comments:	Not reported
Unit Names:	Pressurized Gas Tank Stor Unit(DTI-S3)
Event Description:	Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date:	10/11/2002

Alias:

EPA ID:	CAD983665068
Facility Type:	Historical - Non-Operating
Facility Name:	DEPRESSURIZED TECHNOLOGIES INT
Facility Status:	CLOSED
Project Manager:	Not reported
Project Manager Lead:	Not reported
Supervisor:	Not reported
Alias Type:	FRS
Alias:	110000785561

EPA ID:	CAD983665068
Facility Type:	Historical - Non-Operating
Facility Name:	DEPRESSURIZED TECHNOLOGIES INT
Facility Status:	CLOSED
Project Manager:	Not reported
Project Manager Lead:	Not reported
Supervisor:	Not reported
Alias Type:	Project Code (Site Code)
Alias:	200961

EPA ID:	CAD983665068
Facility Type:	Historical - Non-Operating
Facility Name:	DEPRESSURIZED TECHNOLOGIES INT
Facility Status:	CLOSED
Project Manager:	Not reported
Project Manager Lead:	Not reported
Supervisor:	Not reported
Alias Type:	Project Code (Site Code)
Alias:	520008

CERS:

Name:	DEPRESSURIZED TECHNOLOGIES INT
Address:	335 COCHRANE CIR
City,State,Zip:	MORGAN HILL, CA 950370000
Site ID:	187695
CERS ID:	CAD983665068
CERS Description:	Hazardous Waste

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-28-2003
Violations Found:	No
Eval Type:	DTSC Compliance Evaluation Inspection
Eval Notes:	Compliance Evaluation Inspection - Standardized Permit
Eval Division:	Department of Toxic Substances Control
Eval Program:	DTSC_ENF
Eval Source:	ENVSTORHAZ

DEPRESSURIZED TECHNOLOGIES INT (Continued) **1000820468**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-26-1999
Violations Found:	Yes
Eval Type:	DTSC Compliance Evaluation Inspection
Eval Notes:	Compliance Evaluation Inspection - Standardized Permit Return To Compliance: 1999-03-30 00:00:00
Eval Division:	Department of Toxic Substances Control
Eval Program:	DTSC_ENF
Eval Source:	ENVSTORHAZ

Affiliation:

Affiliation Type Desc:	Facility Contact
Entity Name:	WALTER GONZALEZ
Entity Title:	Not reported
Affiliation Address:	INACTIVE PER VQ01 - BMI
Affiliation City:	MORGAN HILL
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	950370000
Affiliation Phone:	4087767816

Affiliation Type Desc:	Facility Owner
Entity Name:	THOITS BROS C/O RENAULT AND H
Entity Title:	Not reported
Affiliation Address:	2500 EL CAMINO REAL
Affiliation City:	PALO ALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	--
Affiliation Phone:	0000000000

HWTS:

Name:	KOCO MOTION US / DINGS'
Address:	335 COCHRANE CIRCLE
Address 2:	Not reported
City,State,Zip:	MORGAN HILL, CA 95037
EPA ID:	CAC002900737
Inactive Date:	08/04/2017
Create Date:	03/09/2017
Last Act Date:	10/17/2018
Mailing Name:	Not reported
Mailing Address:	335 COCHRANE CIRCLE
Mailing Address 2:	Not reported
Mailing City,State,Zip:	MORGAN HILL, CA 95037
Owner Name:	MAX WIETHARN
Owner Address:	335 COCHRANE CIRCLE
Owner Address 2:	Not reported
Owner City,State,Zip:	MORGAN HILL, CA 95037
Contact Name:	KAREN MCGEOUGH
Contact Address:	335 COCHRANE CIRCLE
Contact Address 2:	Not reported
City,State,Zip:	MORGAN HILL, CA 95037

20 ENE 1/4-1/2 0.296 mi. 1562 ft.

TORAY ADVANCED COMPOSITES
18410 BUTTERFIELD BLVD
MORGAN HILL, CA 95037

RCRA-LQG **1001959809**
ENVIROSTOR **CAR000064659**
WDS

Relative: Higher

Actual: 363 ft.

RCRA-LQG:

Date Form Received by Agency:	2019-06-14 00:00:00.0
Handler Name:	TORAY ADVANCED COMPOSITES
Handler Address:	18410 BUTTERFIELD BLVD
Handler City,State,Zip:	MORGAN HILL, CA 95037-0000
EPA ID:	CAR000064659
Contact Name:	ERIK ROCKWELL
Contact Address:	BUTTERFIELD BLVD
Contact City,State,Zip:	MORGAN HILL, CA 95037-0000
Contact Telephone:	408-465-8513
Contact Fax:	Not reported
Contact Email:	R.ROCKWELL@TORAYTAC-USA.COM
Contact Title:	EH&S MANAGER
EPA Region:	09
Land Type:	Private
Federal Waste Generator Description:	Large 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:	BUTTERFIELD BLVD
Mailing City,State,Zip:	MORGAN HILL, CA 95037
Owner Name:	TORAY TCAC HOLDING USA, INC.
Owner Type:	Private
Operator Name:	TORAY ADVANCED COMPOSITES
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

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:	2019-06-17 17:20:03.0
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: 2017

Click Here for Biennial Reporting System Data:
Year: 2015

Click Here for Biennial Reporting System Data:
Year: 2005

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: D002
Waste Description: CORROSIVE WASTE

Waste Code: D003
Waste Description: REACTIVE WASTE

Waste Code: D004

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

Waste Description: ARSENIC

Waste Code: D007
Waste Description: CHROMIUM

Waste Code: D008
Waste Description: LEAD

Waste Code: D011
Waste Description: SILVER

Waste Code: D035
Waste Description: METHYL ETHYL KETONE

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: F004
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; 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, 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: U112
Waste Description: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

Waste Code: U134
Waste Description: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

Handler - Owner Operator:
Owner/Operator Indicator: Operator
Owner/Operator Name: TENCATE ADVANCE COMPOSITES
Legal Status: Private
Date Became Current: 1999-01-02 00:00:00.
Date Ended Current: Not reported
Owner/Operator Address: Not reported

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

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:	GILDE BUY OUT PARTNERS
Legal Status:	Private
Date Became Current:	2016-02-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	18410 BUTERFIELD BLVD
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	408-465-8513
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	C.WURM@TCAC-USA.COM
Owner/Operator Indicator:	Owner
Owner/Operator Name:	PACKER PARTNERS
Legal Status:	Private
Date Became Current:	1999-01-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	18300 SUTTER BLVD
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
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:	TORAY TCAC HOLDING USA, INC.
Legal Status:	Private
Date Became Current:	2018-09-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	18410 BUTTERFIELD BLVD
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	408-465-8513
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	E.ROCKWELL@TORAYTAC-USA.COM
Owner/Operator Indicator:	Owner
Owner/Operator Name:	PARKERS PARTNERS
Legal Status:	Private
Date Became Current:	1998-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	18330 SUTTER BLVD.
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	408-825-1824
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	ALIEN TECHNOLOGY CORP
Legal Status:	Private

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	18410 BUTTERFIELD BLVD
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037
Owner/Operator Telephone:	510-783-1800
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	KIM DEYOUNG
Legal Status:	Private
Date Became Current:	2005-01-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	630 S. ROSSMORE AVE.
Owner/Operator City,State,Zip:	LOS ANGELES, CA 90005
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:	TENCATE ADVANCED COMPOSITES
Legal Status:	Private
Date Became Current:	1999-05-01 00:00:00.
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:	TENCATE ADVANCED COMPOSITES
Legal Status:	Private
Date Became Current:	1999-05-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	18410 BUTTERFIELD BLVD
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037-0000
Owner/Operator Telephone:	408-465-8513
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	C.WURM@TCAC-USA.COM

Owner/Operator Indicator:	Owner
Owner/Operator Name:	KIM DEYOUNG
Legal Status:	Private
Date Became Current:	2005-01-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	630 S. ROSSMORE AVE.
Owner/Operator City,State,Zip:	LOS ANGELES, CA 90005
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

Owner/Operator Indicator:	Owner
Owner/Operator Name:	KIM DEYOUNG
Legal Status:	Private
Date Became Current:	2005-01-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	630 S. ROSSMORE AVE.
Owner/Operator City,State,Zip:	LOS ANGELES, CA 90005
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:	TORAY ADVANCED COMPOSITES
Legal Status:	Private
Date Became Current:	2019-05-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	18410 BUTTERFIELD BLVD
Owner/Operator City,State,Zip:	MORGAN HILL, CA 95037-0000
Owner/Operator Telephone:	408-465-8513
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	E.ROCKWELL@TORAYTCAC-USA.COM

Owner/Operator Indicator:	Operator
Owner/Operator Name:	ALIEN TECHNOLOGY
Legal Status:	Private
Date Became Current:	2000-04-01 00:00:00.
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:	ALIEN TECHNOLOGY
Legal Status:	Private
Date Became Current:	2000-04-01 00:00:00.
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:	ALIEN TECHNOLOGY
Legal Status:	Private
Date Became Current:	2000-04-01 00:00:00.
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

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 2016-02-24 00:00:00.0
Handler Name: TENCATE ADVANCE COMPOSITES
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: 2018-10-26 00:00:00.0
Handler Name: TENCATE ADVANCED COMPOSITES
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: 2006-02-27 00:00:00.0
Handler Name: ALIEN TECHNOLOGY
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: 2000-01-20 00:00:00.0
Handler Name: ALIEN TECHNOLOGY CORP
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: 2006-12-08 00:00:00.0

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

Handler Name: ALIEN TECHNOLOGY *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: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2014-07-07 00:00:00.0
Handler Name: TENCATE ADVANCED COMPOSITES
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: 2019-06-14 00:00:00.0
Handler Name: TORAY ADVANCED COMPOSITES
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: 2006-02-27 00:00:00.0
Handler Name: ALIEN TECHNOLOGY
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: 325211
NAICS Description: PLASTICS MATERIAL AND RESIN MANUFACTURING

NAICS Code: 32613
NAICS Description: LAMINATED PLASTICS PLATE, SHEET (EXCEPT PACKAGING), AND SHAPE

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

MANUFACTURING

NAICS Code: 339999
NAICS Description: ALL OTHER MISCELLANEOUS MANUFACTURING

Facility Has Received Notices of Violation:

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	2016-01-22 00:00:00.0
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
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:	2016-01-22 00:00:00.0
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
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

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

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 - Pre-transport
Date Violation was Determined:	2016-01-22 00:00:00.0
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
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

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

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 - Records/Reporting
Date Violation was Determined:	2016-01-22 00:00:00.0
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
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:	2016-01-22 00:00:00.0
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
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

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

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 - Manifest
Date Violation was Determined:	2016-01-22 00:00:00.0
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
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

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

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 - Pre-transport
Date Violation was Determined:	2016-01-22 00:00:00.0
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
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:	2016-01-22 00:00:00.0
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:	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

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

Evaluation Date:	2016-01-22 00:00:00.0
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:	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:	2016-01-22 00:00:00.0
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:	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:	2016-01-22 00:00:00.0
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:	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:	2016-01-22 00:00:00.0
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:	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:	2016-01-22 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

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:	2016-01-22 00:00:00.0
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:	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

ENVIROSTOR:

Name:	ALIEN TECHNOLOGY CORPORATION
Address:	18410 BUTTERFIELD RD
City,State,Zip:	MORGAN HILL, CA 95037
Facility ID:	71004096
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Berkeley
Assembly:	30
Senate:	17
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.14513
Longitude:	-121.6577
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAR000064659
Alias Type:	EPA Identification Number
Alias Name:	110002932097
Alias Type:	EPA (FRS #)
Alias Name:	71004096

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

WDS:
Name: ALIEN TECHNOLOGY
Address: 18410 Butterfiled Blvd
City: MORGAN HILL
Facility ID: Central Coastal 43I015752
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: 3
Facility Telephone: 4087823915
Facility Contact: Mary Beth Miller
Agency Name: ALIEN TECHNOLOGY CORPORATION
Agency Address: 18410 BUTTERFIELD BOULEVARD
Agency City,St,Zip: MORGAN HILL 95307
Agency Contact: MARY BETH MILLER
Agency Telephone: 4087823915
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

TORAY ADVANCED COMPOSITES (Continued) **1001959809**

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.

F21 **VOLPI/GAITHER PROP.** **LUST** **S104542016**
SSE **17995 MONTEREY RD** **HIST LUST** **N/A**
1/4-1/2 **MORGAN HILL, CA 95037** **Cortese**
0.383 mi. **CERS**
2020 ft. **Site 1 of 2 in cluster F**

Relative: Higher

Actual: 355 ft.

LUST REG 3:

Region:	3
Regional Board:	Central Coast Region
Facility County:	Santa Clara
Global ID:	T0608558692
Status:	Case Closed
Case Number:	3409
Local Case Num:	09S3E20J02f
Case Type:	S
Substance:	Waste Oil
Quantity:	Not reported
Abatement Method:	Not reported
Leak Source:	Not reported
Leak Cause:	Not reported
How Stopped:	Not reported
How Discovered:	Not reported
Release Date:	10/01/1990
Discovered Date:	Not reported
Enter Date:	/ /
Stop Date:	Not reported
Review Date:	/ /
Enforce Date:	Not reported
Close Date:	8/9/93
Enforcement Type:	NOR
Responsible Party:	Not reported
RP Address:	Not reported
Contact:	Not reported
Cross Street:	Not reported
Local Agency:	43099L
Lead Agency:	Local Agency
Staff Initials:	Not reported
Confirm Leak:	Not reported
Workplan:	Not reported
Prelim Assess:	9/13/90
Pollution Char:	09/17/1990
Remedial Plan:	Not reported
Remedial Action:	Not reported
Monitoring:	/ /
Pilot Program:	LUST
Interim Action:	Not reported

VOLPI/GAITHER PROP. (Continued) **S104542016**

Funding: Not reported
MTBE Class: *
Max MTBE Grnd Wtr: Not reported
Max MTBE Soil: Not reported
Max MTBE Data: / /
MTBE Tested: NRQ
Lat/Long: 37.136227 / -121.659714
Soil Qualifier: Not reported
Grnd Wtr Qualifier: Not reported
Mtbe Concentratn: 0
Mtbe Fuel: 0
Org Name: Not reported
Basin Plan: Not reported
Beneficial: MUN
Priority: Not reported
UST Cleanup Fund ID: Not reported
Suspended: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Distance From Well: 0
Assigned Name: Not reported
Summary: Not reported

HIST LUST SANTA CLARA:
Name: Volpi/Gaither Prop.
Address: 17995 Monterey Rd
City: Morgan Hill
Region: SANTA CLARA
Region Code: 3
SCVWD ID: 09S3E20J02
Oversite Agency: SCVWD
Date Listed: 1990-11-20 00:00:00
Closed Date: 1993-08-09 00:00:00

CORTESE:
Name: VOLPI/GAITHER PROP.
Address: 17995 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0608558692
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported

VOLPI/GAITHER PROP. (Continued) **S104542016**

WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

CERS:
Name: VOLPI/GAITHER PROP.
Address: 17995 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Site ID: 238855
CERS ID: T0608558692
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: UST CASE WORKER - SANTA CLARA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1555 Berger Drive, Suite 300
Affiliation City: SAN JOSE
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 4089183400

F22 **ROCCI'S AUTO BODY** **LUST** **1000171279**
SSE **17995 MONTEREY RD** **SWEEPS UST** **N/A**
1/4-1/2 **MORGAN HILL, CA 95037** **CA FID UST**
0.383 mi. **CUPA Listings**
2020 ft. **Site 2 of 2 in cluster F** **HIST CORTESE**
CERS

Relative: Higher

Actual: 355 ft.

LUST:
Name: VOLPI/GAITHER PROP.
Address: 17995 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Lead Agency: SANTA CLARA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608558692
Global Id: T0608558692
Latitude: 37.1367994837987
Longitude: -121.660408973694
Status: Completed - Case Closed
Status Date: 08/09/1993
Case Worker: UST
RB Case Number: 3409
Local Agency: SANTA CLARA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

LUST:
Global Id: T0608558692
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP

ROCCI'S AUTO BODY (Continued) **1000171279**

Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

LUST:
Global Id: T0608558692
Action Type: RESPONSE
Date: 12/05/1990
Action: Other Report / Document

Global Id: T0608558692
Action Type: ENFORCEMENT
Date: 08/09/1993
Action: Closure/No Further Action Letter

Global Id: T0608558692
Action Type: Other
Date: 10/01/1990
Action: Leak Reported

Global Id: T0608558692
Action Type: ENFORCEMENT
Date: 12/03/1990
Action: Notice of Responsibility - #39297

Global Id: T0608558692
Action Type: REMEDIATION
Date: 09/13/1990
Action: Excavation

Global Id: T0608558692
Action Type: REMEDIATION
Date: 09/13/1990
Action: Excavation

LUST:
Global Id: T0608558692
Status: Open - Case Begin Date
Status Date: 09/13/1990

Global Id: T0608558692
Status: Open - Site Assessment
Status Date: 09/13/1990

Global Id: T0608558692
Status: Open - Site Assessment
Status Date: 09/17/1990

Global Id: T0608558692
Status: Completed - Case Closed
Status Date: 08/09/1993

LUST SANTA CLARA:
Name: VOLPI/GAITHER PROP.

ROCCI'S AUTO BODY (Continued) **1000171279**

Address: 17995 MONTEREY RD
City,State,Zip: MORGAN HILL, CA
Region: SANTA CLARA
SCVWD ID: 09S3E20J02F
Date Closed: 08/09/1993
EDR Link ID: 09S3E20J02F

SWEEPS UST:
Name: ROCCIS AUTO BODY
Address: 17995 MONTEREY RD
City: MORGAN HILL
Status: Not reported
Comp Number: 317995
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 43-004-317995-000001
Tank Status: Not reported
Capacity: 3000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: KEROSENE
Number Of Tanks: 4

Name: ROCCIS AUTO BODY
Address: 17995 MONTEREY RD
City: MORGAN HILL
Status: Not reported
Comp Number: 317995
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 43-004-317995-000002
Tank Status: Not reported
Capacity: 5000
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Name: ROCCIS AUTO BODY
Address: 17995 MONTEREY RD
City: MORGAN HILL
Status: Not reported
Comp Number: 317995
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported

ROCCI'S AUTO BODY (Continued) **1000171279**

Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-004-317995-000003
Tank Status:	Not reported
Capacity:	3000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	KEROSENE
Number Of Tanks:	Not reported

Name:	ROCCIS AUTO BODY
Address:	17995 MONTEREY RD
City:	MORGAN HILL
Status:	Not reported
Comp Number:	317995
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-004-317995-000004
Tank Status:	Not reported
Capacity:	250
Active Date:	Not reported
Tank Use:	OIL
STG:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	43001592
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	4087799090
Mail To:	Not reported
Mailing Address:	P O BOX
Mailing Address 2:	Not reported
Mailing City,St,Zip:	MORGAN HILL 95037
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

CUPA SANTA CLARA:

Name:	ROCCI'S AUTO BODY
Address:	17995 MONTEREY RD
City,State,Zip:	MORGAN HILL, CA 95037
Region:	SANTA CLARA
PE#:	2205

ROCCI'S AUTO BODY (Continued) **1000171279**

Program Description: GENERATES 100 KG YR TO <5 TONS/YR
Program Identifier: DEH PERMIT-HAZ WASTE GENERATOR PROGRAM
Latitude: 37.138501
Longitude: -121.661438
Record ID: PR0313053
Facility ID: FA0203178

Name: ROCCI'S AUTO BODY
Address: 17995 MONTEREY RD
City,State,Zip: MORGAN HILL, CA 95037
Region: SANTA CLARA
PE#: Not reported
Program Description: HMBP FACILITY, 1-3 CHEMICALS
Program Identifier: DEH PERMIT-HAZ MAT BUSINESS PLAN PROGRAM
Latitude: 37.138501
Longitude: -121.661438
Record ID: PR0432051
Facility ID: FA0203178

HIST CORTESE:
edr_fname: VOLPI/GAITHER PROPERTY
edr_fadd1: 17995 MONTEREY
City,State,Zip: MORGAN HILL, CA
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 989

CERS:
Name: ROCCI'S AUTO COLLISION INC
Address: 17995 MONTEREY ROAD
City,State,Zip: MORGAN HILL, CA 95037-3616
Site ID: 490692
CERS ID: 110001191898
CERS Description: US EPA Air Emission Inventory System (EIS)

G23 **MADRONE LAND CORP./SAN JO** **ENVIROSTOR** **S101482285**
NNE **645 COCHRANE** **CPS-SLIC** **N/A**
1/4-1/2 **MORGAN HILL, CA 95037** **DEED**
0.395 mi. **HIST CORTESE**
2085 ft. **Site 1 of 2 in cluster G** **CERS**

Relative: Higher
Actual: 366 ft.

ENVIROSTOR:
Name: MADRONE LAND CORP./SAN JOSE TRAP & SKEET
Address: 645 COCHRANE RD.
City,State,Zip: MORGAN HILL, CA 95037
Facility ID: 43010016
Status: Refer: RWQCB
Status Date: 08/21/1996
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Rick Jones

MADRONE LAND CORP./SAN JO (Continued) **S101482285**

Supervisor: Hansen Pang
Division Branch: Cleanup Berkeley
Assembly: 30
Senate: 17
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.15062
Longitude: -121.6562
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * WASTE OIL & MIXED OIL Lead
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: MADRONE LAND CORP./SAN JOSE TRAP & SKEET
Alias Type: Alternate Name
Alias Name: 43010016
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/10/1992
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

CPS-SLIC:
Name: MADRONE LAND CORPORATION
Address: 645 COCHRANE ROAD
City,State,Zip: MORGAN HILL, CA 95037
Region: STATE
Facility Status: Completed - Case Closed
Status Date: 08/09/1995
Global Id: SL20274892
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.1292648829132
Longitude: -121.641437342297
Case Type: Cleanup Program Site
Case Worker: UUU
Local Agency: Not reported
RB Case Number: SL20274892
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

MADRONE LAND CORP./SAN JO (Continued) **S101482285**

Click here to access the California GeoTracker records for this facility:

DEED:
Name: MADRONE LAND CORPORATION
Address: 645 COCHRANE ROAD
City,State,Zip: MORGAN HILL, CA 95037
Envirostor ID: SL20274892
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 10/02/2001
File Name: Geotracker Land Use/Deed Restrictions

HIST CORTESE:
edr_fname: MADRONE LAND CORP./SAN JO
edr_fadd1: 645 COCHRANE
City,State,Zip: MORGAN HILL, CA 95037
Region: CORTESE
Facility County Code: 43
Reg By: CALSI
Reg Id: 43010016

CERS:
Name: MADRONE LAND CORPORATION
Address: 645 COCHRANE ROAD
City,State,Zip: MORGAN HILL, CA 95037
Site ID: 225155
CERS ID: SL20274892
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

G24 **MADRONE LAND CORPORATION** **CPS-SLIC** **S106235223**
NNE **645 COCHRANE ROAD** **N/A**
1/4-1/2 **MORGAN HILL, CA**
0.395 mi.
2085 ft. **Site 2 of 2 in cluster G**

Relative:
Higher

Actual:
366 ft.

SLIC REG 2:
Region: 2
Facility ID: SL20274892
Facility Status: Not reported
Date Closed: Not reported

MADRONE LAND CORPORATION (Continued) **S106235223**

Local Case #: Not reported
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

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25 NE 1/2-1 0.576 mi. 3039 ft. **PHOTOTEK** **18450 SUTTER BLVD** **MORGAN HILL, CA 95037**

RCRA-SQG 1001115570
ENVIROSTOR CAR000015065
HAZNET
HWTS

Relative: Higher

Actual: 373 ft.

RCRA-SQG:

Date Form Received by Agency:		2002-04-30 00:00:00.0
Handler Name:	PHOTOTEK	
Handler Address:		18450 SUTTER BLVD
Handler City,State,Zip:		MORGAN HILL, CA 95037
EPA ID:		CAR000015065
Contact Name:		ROBIN A ADAIR
Contact Address:		Not reported
Contact City,State,Zip:		Not reported
Contact Telephone:		650-361-3022 3022
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09
Land Type:		Private
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:		307 CONSTITUTION DRIVE, MS
Mailing City,State,Zip:		MENLO PARK, CA 94025
Owner Name:		TYCO ELECTRONICS CORPORATION
Owner Type:		Private
Operator Name:		TYCO ELECTRONICS CORPORATION
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

PHOTOTEK (Continued) **1001115570**

Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-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:	2006-09-05 00:00:00.0
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

Biennial: List of Years
Year: 2001

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:
Waste Code: D001
Waste Description: IGNITABLE WASTE

Waste Code: D002
Waste Description: CORROSIVE WASTE

PHOTOTEK (Continued) **1001115570**

Waste Code: D004
Waste Description: ARSENIC

Waste Code: D007
Waste Description: CHROMIUM

Waste Code: D008
Waste Description: LEAD

Waste Code: F006
Waste Description: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Handler - Owner Operator:
Owner/Operator Indicator: Operator
Owner/Operator Name: TYCO ELECTRONICS CORPORATION
Legal Status: Private
Date Became Current: 2002-01-01 00:00:00.
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: JAMES OSTENDORF
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 2310 LUNDY AVE
Owner/Operator City,State,Zip: SAN JOSE, CA 95131
Owner/Operator Telephone: 408-435-5501
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: TYCO ELECTRONICS CORPORATION
Legal Status: Private
Date Became Current: 2002-01-01 00:00:00.
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: TYCO ELECTRONICS CORPORATION

PHOTOTEK (Continued) **1001115570**

Legal Status: Private
Date Became Current: 2002-01-01 00:00:00.
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: TYCO ELECTRONICS CORPORATION
Legal Status: Private
Date Became Current: 2002-01-01 00:00:00.
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: 2002-04-30 00:00:00.0
Handler Name: PHOTOTEK
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

Receive Date: 2001-04-30 00:00:00.0
Handler Name: DYNAVISION INC DBA PHOTOTEK
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: 1999-03-04 00:00:00.0
Handler Name: AGASIS
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

PHOTOTEK (Continued) **1001115570**

Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2002-04-30 00:00:00.0
Handler Name: PHOTOTEK
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: 334412
NAICS Description: BARE PRINTED CIRCUIT BOARD MANUFACTURING

NAICS Code: 334418
NAICS Description: PRINTED CIRCUIT ASSEMBLY (ELECTRONIC ASSEMBLY) MANUFACTURING

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

ENVIROSTOR:
Name: PHOTOTEK
Address: 18450 SUTTER BOULEVARD
City,State,Zip: MORGAN HILL, CA 95037
Facility ID: 71003458
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Berkeley
Assembly: 30
Senate: 17
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported

PHOTOTEK (Continued) **1001115570**

Latitude: 37.14834
Longitude: -121.6543
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAR000015065
Alias Type: EPA Identification Number
Alias Name: 110008062005
Alias Type: EPA (FRS #)
Alias Name: 71003458
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/11/2012
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HAZNET:
Name: PHOTOTEK
Address: 18450 SUTTER BLVD
Address 2: Not reported
City,State,Zip: MORGAN HILL, CA 950370000
Contact: JAMES OSTENDOR F
Telephone: 6509486781
Mailing Name: Not reported
Mailing Address: 738 LOYOLA DR

Year: 2004
Gepaid: CAR000015065
TSD EPA ID: CAD008302903
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H01 - Transfer Station
Tons: 9.24

Year: 2003
Gepaid: CAR000015065
TSD EPA ID: CAT000646117
CA Waste Code: 352 - Other organic solids
Disposal Method: D80 - Disposal, Land Fill
Tons: 67.424

Year: 2002

PHOTOTEK (Continued) **1001115570**

Gepaid: CAR000015065
TSD EPA ID: CAT080014079
CA Waste Code: 141 - Off-specification, aged or surplus inorganics
Disposal Method: H01 - Transfer Station
Tons: 0.005

Year: 2002
Gepaid: CAR000015065
TSD EPA ID: CAD097030993
CA Waste Code: 352 - Other organic solids
Disposal Method: D99 - Disposal, Other
Tons: 0.125

Year: 2002
Gepaid: CAR000015065
TSD EPA ID: CAT080014079
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H01 - Transfer Station
Tons: 0.5875

Year: 2001
Gepaid: CAR000015065
TSD EPA ID: CAD028409019
CA Waste Code: 343 - Unspecified organic liquid mixture
Disposal Method: H01 - Transfer Station
Tons: 0.051

Year: 2001
Gepaid: CAR000015065
TSD EPA ID: CAD028409019
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H01 - Transfer Station
Tons: 0.693

Year: 2001
Gepaid: CAR000015065
TSD EPA ID: CAT000646117
CA Waste Code: 352 - Other organic solids
Disposal Method: D80 - Disposal, Land Fill
Tons: 0.725

Year: 2001
Gepaid: CAR000015065
TSD EPA ID: CAD097030993
CA Waste Code: 121 - Alkaline solution (pH >= 12.5) with metals
Disposal Method: D99 - Disposal, Other
Tons: 2.7

Year: 2001
Gepaid: CAR000015065
TSD EPA ID: CAD097030993
CA Waste Code: 791 - Liquids with pH <= 2
Disposal Method: R01 - Recycler
Tons: 0.0834

PHOTOTEK (Continued) **1001115570**

Click this hyperlink while viewing on your computer to access
62 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	1997
Gen EPA ID:	CAR000015065
Shipment Date:	19971229
Creation Date:	4/16/1998 0:00:00
Receipt Date:	19980108
Manifest ID:	97233782
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	1.3761
Waste Quantity:	330
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971218
Creation Date:	3/31/1998 0:00:00
Receipt Date:	19971223
Manifest ID:	97233747
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	1.1467
Waste Quantity:	275
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PHOTOTEK (Continued) **1001115570**

Shipment Date:	19971211
Creation Date:	3/31/1998 0:00:00
Receipt Date:	19971223
Manifest ID:	97233692
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	0.9174
Waste Quantity:	220
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19971211
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971211
Manifest ID:	97321350
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD003963592
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD003963592
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.35
Waste Quantity:	700
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19971210
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971215
Manifest ID:	97280921
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

PHOTOTEK (Continued) **1001115570**

TSDF EPA ID:	CAD000088252
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD000088252
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1
Waste Quantity:	200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971208
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971211
Manifest ID:	96760291
Trans EPA ID:	CAD980584510
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	AZD980735500
Trans Name:	Not reported
TSDF Alt EPA ID:	AZD980735500
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	F006
Meth Code:	R01 - Recycler
Quantity Tons:	0.75
Waste Quantity:	1500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971204
Creation Date:	3/31/1998 0:00:00
Receipt Date:	19971217
Manifest ID:	97233736
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	2.2935

PHOTOTEK (Continued) **1001115570**

Waste Quantity:	550
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971120
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971204
Manifest ID:	97233718
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	1.3761
Waste Quantity:	330
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971117
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971119
Manifest ID:	96760290
Trans EPA ID:	CAD980584510
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	AZD980735500
Trans Name:	Not reported
TSDF Alt EPA ID:	AZD980735500
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	F006
Meth Code:	R01 - Recycler
Quantity Tons:	1
Waste Quantity:	2000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PHOTOTEK (Continued) **1001115570**

Shipment Date:	19971110
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971111
Manifest ID:	97280965
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD000088252
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD000088252
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2004
Gen EPA ID:	CAR000015065

Shipment Date:	20040122
Creation Date:	8/13/2004 7:53:20
Receipt Date:	20040123
Manifest ID:	23310365
Trans EPA ID:	CAD004778742
Trans Name:	STURGEON AND SON INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	ONYX ENVIRONMENTAL SVCS LLC
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	9.24
Waste Quantity:	2200
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2001
Gen EPA ID:	CAR000015065

PHOTOTEK (Continued) **1001115570**

Shipment Date:	20011228
Creation Date:	6/7/2002 18:30:54
Receipt Date:	20020108
Manifest ID:	20828059
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986619328
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D001
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	0.014
Waste Quantity:	28
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20011228
Creation Date:	6/7/2002 18:30:54
Receipt Date:	20020108
Manifest ID:	20828059
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986619328
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	F006
Meth Code:	- Not reported
Quantity Tons:	0.225
Waste Quantity:	450
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20011228
Creation Date:	2/20/2002 0:00:00
Receipt Date:	20020108
Manifest ID:	21271335
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993

PHOTOTEK (Continued) **1001115570**

Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	791 - Liquids with pH < 2 792 Liquids with pH < 2 with metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0834
Waste Quantity:	20
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20011228
Creation Date:	2/20/2002 0:00:00
Receipt Date:	20020108
Manifest ID:	21271335
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	D99 - Disposal, Other
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20011228
Creation Date:	2/20/2002 0:00:00
Receipt Date:	20020108
Manifest ID:	21271335
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	F006
Meth Code:	D99 - Disposal, Other
Quantity Tons:	2
Waste Quantity:	4000
Quantity Unit:	P

PHOTOTEK (Continued) **1001115570**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20011228
Creation Date:	7/2/2002 18:32:18
Receipt Date:	20020108
Manifest ID:	21271334
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980888598
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	711 - Liquids with cyanides > 1000 mg/l
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.10425
Waste Quantity:	25
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20011228
Creation Date:	7/25/2002 18:31:24
Receipt Date:	Not reported
Manifest ID:	21271332
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	4.17
Waste Quantity:	1000
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20011228
Creation Date:	7/25/2002 18:31:24

PHOTOTEK (Continued) **1001115570**

Receipt Date:	Not reported
Manifest ID:	21271328
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	17.22
Waste Quantity:	4100
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20011220
Creation Date:	9/5/2002 18:30:37
Receipt Date:	20020107
Manifest ID:	21271322
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986619328
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	F006
Meth Code:	R01 - Recycler
Quantity Tons:	0.4587
Waste Quantity:	110
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20011220
Creation Date:	2/20/2002 0:00:00
Receipt Date:	20011227
Manifest ID:	21271320
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported

PHOTOTEK (Continued) **1001115570**

TSDF Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H01 - Transfer Station
Quantity Tons: 0.528
Waste Quantity: 160
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2002
Gen EPA ID: CAR000015065

Shipment Date: Not reported
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 21573267
Trans EPA ID: NJD080631369
Trans Name: Not reported
Trans 2 EPA ID: CAD004778742
Trans 2 Name: Not reported
TSDF EPA ID: CAT080014079
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 141 - Off-specification, aged, or surplus inorganics
RCRA Code: D001
Meth Code: - Not reported
Quantity Tons: 0.015
Waste Quantity: 30
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: Not reported
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 21573267
Trans EPA ID: NJD080631369
Trans Name: Not reported
Trans 2 EPA ID: CAD004778742
Trans 2 Name: Not reported
TSDF EPA ID: CAT080014079
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 141 - Off-specification, aged, or surplus inorganics
RCRA Code: P106
Meth Code: - Not reported
Quantity Tons: 0.004

PHOTOTEK (Continued) **1001115570**

Waste Quantity:	8
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	Not reported
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	21573267
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.02
Waste Quantity:	40
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	Not reported
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	21573267
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.0875
Waste Quantity:	175
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	Not reported

PHOTOTEK (Continued) **1001115570**

Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	21573267
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.95
Waste Quantity:	1900
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	Not reported
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	21573267
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D002
Meth Code:	- Not reported
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	Not reported
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	21573267
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported

PHOTOTEK (Continued) **1001115570**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	791 - Liquids with pH < 2 792 Liquids with pH < 2 with metals
RCRA Code:	D002
Meth Code:	- Not reported
Quantity Tons:	0.045
Waste Quantity:	90
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	Not reported
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	21573267
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D009
Meth Code:	- Not reported
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	Not reported
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	21573267
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D005
Meth Code:	- Not reported
Quantity Tons:	0.0125
Waste Quantity:	25
Quantity Unit:	P
Additional Code 1:	Not reported

PHOTOTEK (Continued) **1001115570**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	Not reported
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	21573267
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D002
Meth Code:	- Not reported
Quantity Tons:	0.015
Waste Quantity:	30
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1998
Gen EPA ID:	CAR000015065
Shipment Date:	19981228
Creation Date:	4/1/1999 0:00:00
Receipt Date:	19990121
Manifest ID:	98086649
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	2.2935
Waste Quantity:	550
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PHOTOTEK (Continued) **1001115570**

Shipment Date:	19981217
Creation Date:	3/17/1999 0:00:00
Receipt Date:	19990104
Manifest ID:	98021189
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	1.3761
Waste Quantity:	330
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981211
Creation Date:	2/8/1999 0:00:00
Receipt Date:	19981223
Manifest ID:	98115197
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD000088252
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD000088252
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981210
Creation Date:	3/15/1999 0:00:00
Receipt Date:	19981223
Manifest ID:	98084986
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported

PHOTOTEK (Continued) **1001115570**

TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	0.9174
Waste Quantity:	220
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981204
Creation Date:	1/13/1999 0:00:00
Receipt Date:	19981204
Manifest ID:	98499874
Trans EPA ID:	CAD069138899
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD069138899
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD069138899
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	D008
Meth Code:	R01 - Recycler
Quantity Tons:	0.45
Waste Quantity:	900
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981203
Creation Date:	3/15/1999 0:00:00
Receipt Date:	19981221
Manifest ID:	98084985
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler

PHOTOTEK (Continued) **1001115570**

Quantity Tons:	0.688
Waste Quantity:	165
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981130
Creation Date:	3/15/1999 0:00:00
Receipt Date:	19981218
Manifest ID:	98084984
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	1.8348
Waste Quantity:	440
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981130
Creation Date:	1/21/1999 0:00:00
Receipt Date:	19981201
Manifest ID:	98115159
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD000088252
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD000088252
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PHOTOTEK (Continued) **1001115570**

Shipment Date:	19981125
Creation Date:	3/1/1999 0:00:00
Receipt Date:	19981202
Manifest ID:	97446982
Trans EPA ID:	CAD063547996
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	AZD980735500
Trans Name:	Not reported
TSDF Alt EPA ID:	AZD980735500
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	F006
Meth Code:	R01 - Recycler
Quantity Tons:	2
Waste Quantity:	4000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981119
Creation Date:	2/26/1999 0:00:00
Receipt Date:	19981204
Manifest ID:	98084983
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	R01 - Recycler
Quantity Tons:	1.1467
Waste Quantity:	275
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1999
Gen EPA ID:	CAR000015065

Shipment Date:	19991230
Creation Date:	3/7/2000 0:00:00
Receipt Date:	20000106
Manifest ID:	99479269

PHOTOTEK (Continued) **1001115570**

Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	1.8348
Waste Quantity:	440
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991221
Creation Date:	2/28/2000 0:00:00
Receipt Date:	19991223
Manifest ID:	99479272
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	1.8348
Waste Quantity:	440
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991216
Creation Date:	3/7/2000 0:00:00
Receipt Date:	19991221
Manifest ID:	99479456
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025

PHOTOTEK (Continued) **1001115570**

TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	2.9815
Waste Quantity:	715
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991207
Creation Date:	2/15/2000 0:00:00
Receipt Date:	19991213
Manifest ID:	99479483
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	0
Waste Quantity:	495
Quantity Unit:	*
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991130
Creation Date:	2/15/2000 0:00:00
Receipt Date:	19991208
Manifest ID:	99479563
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	1.6054
Waste Quantity:	385

PHOTOTEK (Continued) **1001115570**

Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991123
Creation Date:	2/1/2000 0:00:00
Receipt Date:	19991201
Manifest ID:	99479460
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	2.2935
Waste Quantity:	550
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991122
Creation Date:	2/1/2000 0:00:00
Receipt Date:	19991123
Manifest ID:	99384827
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	F006
Meth Code:	D99 - Disposal, Other
Quantity Tons:	1.5
Waste Quantity:	3000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991116

PHOTOTEK (Continued) **1001115570**

Creation Date:	1/19/2000 0:00:00
Receipt Date:	19991118
Manifest ID:	99479271
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	2.2935
Waste Quantity:	550
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991109
Creation Date:	1/11/2000 0:00:00
Receipt Date:	19991111
Manifest ID:	99479317
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	2.0641
Waste Quantity:	495
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991101
Creation Date:	1/11/2000 0:00:00
Receipt Date:	19991104
Manifest ID:	99479316
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported

PHOTOTEK (Continued) **1001115570**

TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	1.6054
Waste Quantity:	385
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2000
Gen EPA ID:	CAR000015065
Shipment Date:	20001228
Creation Date:	3/22/2001 0:00:00
Receipt Date:	20010103
Manifest ID:	20581134
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	1.8348
Waste Quantity:	440
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20001221
Creation Date:	3/6/2001 0:00:00
Receipt Date:	20001227
Manifest ID:	20581125
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported

PHOTOTEK (Continued) **1001115570**

TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	0.9174
Waste Quantity:	220
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20001219
Creation Date:	3/6/2001 0:00:00
Receipt Date:	20001222
Manifest ID:	20581049
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	1.6054
Waste Quantity:	385
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20001215
Creation Date:	2/1/2001 0:00:00
Receipt Date:	20001220
Manifest ID:	20175174
Trans EPA ID:	CAR000003707
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	F006
Meth Code:	D99 - Disposal, Other
Quantity Tons:	1.5
Waste Quantity:	3000
Quantity Unit:	P

PHOTOTEK (Continued) **1001115570**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20001214
Creation Date:	3/6/2001 0:00:00
Receipt Date:	20001219
Manifest ID:	20581050
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	0.9174
Waste Quantity:	220
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20001212
Creation Date:	3/6/2001 0:00:00
Receipt Date:	20001218
Manifest ID:	20581016
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008488025
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	1.6054
Waste Quantity:	385
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20001207

PHOTOTEK (Continued) **1001115570**

Creation Date:	3/22/2001 0:00:00
Receipt Date:	20001215
Manifest ID:	20580982
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	CAR000047696
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	726 - Liquids with nickel > 134 mg/l
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20001207
Creation Date:	3/6/2001 0:00:00
Receipt Date:	20001212
Manifest ID:	20104940
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD097030993
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	D002
Meth Code:	D99 - Disposal, Other
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20001207
Creation Date:	3/5/2001 0:00:00
Receipt Date:	20001211
Manifest ID:	20580987
Trans EPA ID:	CAD010925576
Trans Name:	Not reported
Trans 2 EPA ID:	NJD986607380
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008488025
Trans Name:	Not reported

PHOTOTEK (Continued) **1001115570**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	132 - Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	0.688
Waste Quantity:	165
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20001207
Creation Date:	1/24/2001 0:00:00
Receipt Date:	20001212
Manifest ID:	20108051
Trans EPA ID:	CAD095991253
Trans Name:	Not reported
Trans 2 EPA ID:	CAD076303254
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2003
Gen EPA ID:	CAR000015065
Shipment Date:	20031229
Creation Date:	8/30/2004 14:52:16
Receipt Date:	20031229
Manifest ID:	23310294
Trans EPA ID:	CAD004778742
Trans Name:	STURGEON AND SON INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT INC
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported

PHOTOTEK (Continued) **1001115570**

Meth Code:	D80 - Disposal, Land Fill
Quantity Tons:	67.424
Waste Quantity:	80
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	PHOTOTEK
Address:	18450 SUTTER BLVD
Address 2:	Not reported
City,State,Zip:	MORGAN HILL, CA 950370000
EPA ID:	CAR000015065
Inactive Date:	06/30/2004
Create Date:	02/26/1997
Last Act Date:	04/11/2006
Mailing Name:	Not reported
Mailing Address:	738 LOYOLA DR
Mailing Address 2:	Not reported
Mailing City,State,Zip:	LOS ALTOS, CA 94024
Owner Name:	JAMES OSTENDOR F
Owner Address:	738 LOYOLA DR
Owner Address 2:	Not reported
Owner City,State,Zip:	LOS ALTOS, CA 94024
Contact Name:	JAMES OSTENDOR F
Contact Address:	738 LOYOLA DR
Contact Address 2:	Not reported
City,State,Zip:	LOS ALTOS, CA 94024

NAICS:

EPA ID:	CAR000015065
Create Date:	2002-03-14 16:36:30.000
NAICS Code:	334412
NAICS Description:	Bare Printed Circuit Board Manufacturing
Issued EPA ID Date:	1997-02-26 00:00:00
Inactive Date:	2004-06-30 00:00:00
Facility Name:	PHOTOTEK
Facility Address:	18450 SUTTER BLVD
Facility Address 2:	Not reported
Facility City:	MORGAN HILL
Facility County:	Not reported
Facility State:	CA
Facility Zip:	950370000

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MORGAN HILL	S111120580	FORMER WHITE GASOLINE	MONTEREY RD & WATSONVILLE RD		LUST
MORGAN HILL	S107541046		VEHICLE STOP AT VINEYARD & MON	95037	CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
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

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 03/30/2021
Next Scheduled EDR Contact: 07/12/2021
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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 39

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
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: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
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: 12/14/2020
Date Data Arrived at EDR: 12/15/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 7

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database 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: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an 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: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 83

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

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 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 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 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 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 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 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST 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

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
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: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
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: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
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: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
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: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
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: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
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

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/05/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 04/01/2021
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
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: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
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: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
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: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

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: 03/22/2021
Next Scheduled EDR Contact: 07/05/2021
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: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State and tribal Brownfields 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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 03/15/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

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: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/23/2021
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: 04/22/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

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

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: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
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: 04/29/2021
Next Scheduled EDR Contact: 08/09/2021
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: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/22/2021
Next Scheduled EDR Contact: 09/06/2021
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: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
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: 04/14/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
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: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
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: 03/01/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
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: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 77

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/16/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 85
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/24/2021
Next Scheduled EDR Contact: 07/05/2021
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: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78
Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
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: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)
Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 02/11/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 47

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
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: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
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: 05/18/2021
Next Scheduled EDR Contact: 08/23/2021
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: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
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: 03/19/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

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: 05/17/2021
Next Scheduled EDR Contact: 08/30/2021
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: 01/20/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 60

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/22/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
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: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
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: 03/08/2021
Date Data Arrived at EDR: 03/11/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 61

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
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: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
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: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
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: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
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: 04/27/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/13/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 68

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/28/2021
Next Scheduled EDR Contact: 08/16/2021
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: 05/21/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
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

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: 02/01/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 05/27/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 14

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/26/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

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: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/11/2020
Date Data Arrived at EDR: 12/11/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 33

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/02/2021
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/17/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/23/2021
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: 03/01/2021
Date Data Arrived at EDR: 03/04/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 77

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
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: 02/26/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
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: 02/23/2021
Date Data Arrived at EDR: 02/25/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 83

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/09/2021
Number of Days to Update: 79

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
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: 02/08/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 82

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
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: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/07/2021
Number of Days to Update: 79

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/05/2021
Date Data Arrived at EDR: 01/05/2021
Date Made Active in Reports: 03/18/2021
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
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: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
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: 01/29/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/04/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
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: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
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: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/19/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
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: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
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: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

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: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

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: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
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: 04/08/2021
Date Data Arrived at EDR: 04/09/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 11
Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 03/17/2021
Date Data Arrived at EDR: 03/18/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 7

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/17/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
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: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/24/2020
Number of Days to Update: 8

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 07/05/2021
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: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
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: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 80

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/09/2021
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: 01/14/2021
Date Data Arrived at EDR: 01/15/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 80

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 2

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/10/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
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: 05/11/2021
Next Scheduled EDR Contact: 08/30/2021
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: 10/29/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 01/28/2021
Number of Days to Update: 7

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
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: 05/25/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 03/11/2021
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
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: 06/04/2021
Next Scheduled EDR Contact: 08/02/2021
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: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
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: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
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: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
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: 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: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
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: 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: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
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: 10/19/2020
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
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: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
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: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
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: 09/11/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 77

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
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: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
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: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
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: 12/21/2020
Date Data Arrived at EDR: 12/21/2020
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 79

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
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: 06/02/2021
Next Scheduled EDR Contact: 09/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/08/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
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: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
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: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 9

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/02/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
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: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/26/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/12/2021
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: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 04/29/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 4

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
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: 05/19/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 06/07/2021
Number of Days to Update: 19

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 08/16/2021
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: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/21/2021
Number of Days to Update: 79

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
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: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
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: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
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: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/07/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 3

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/06/2021
Next Scheduled EDR Contact: 08/30/2021
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: 06/10/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/26/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 82

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
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: 05/21/2021
Next Scheduled EDR Contact: 08/16/2021
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: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
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: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/23/2021
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 77

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 7

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
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: 01/05/2021
Date Data Arrived at EDR: 01/06/2021
Date Made Active in Reports: 03/18/2021
Number of Days to Update: 71

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/19/2021
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: 760-352-0381
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
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: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/28/2020
Date Data Arrived at EDR: 01/29/2021
Date Made Active in Reports: 04/22/2021
Number of Days to Update: 83
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
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: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
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: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
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: 03/29/2021
Date Data Arrived at EDR: 04/21/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 2
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
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: 03/01/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/21/2020
Date Data Arrived at EDR: 12/23/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 12
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/21/2021
Date Data Arrived at EDR: 04/22/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 20

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/24/2021
Next Scheduled EDR Contact: 08/09/2021
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: 10/05/2020
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
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: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/09/2021
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: 04/09/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/13/2021
Next Scheduled EDR Contact: 08/30/2021
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: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

18545 MONTEREY ROAD
18545 MONTEREY ROAD
MORGAN HILL, CA 95037

TARGET PROPERTY COORDINATES

Latitude (North):	37.142665 - 37° 8' 33.59''
Longitude (West):	121.663322 - 121° 39' 47.96''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	618715.6
UTM Y (Meters):	4111331.5
Elevation:	352 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640402 MORGAN HILL, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

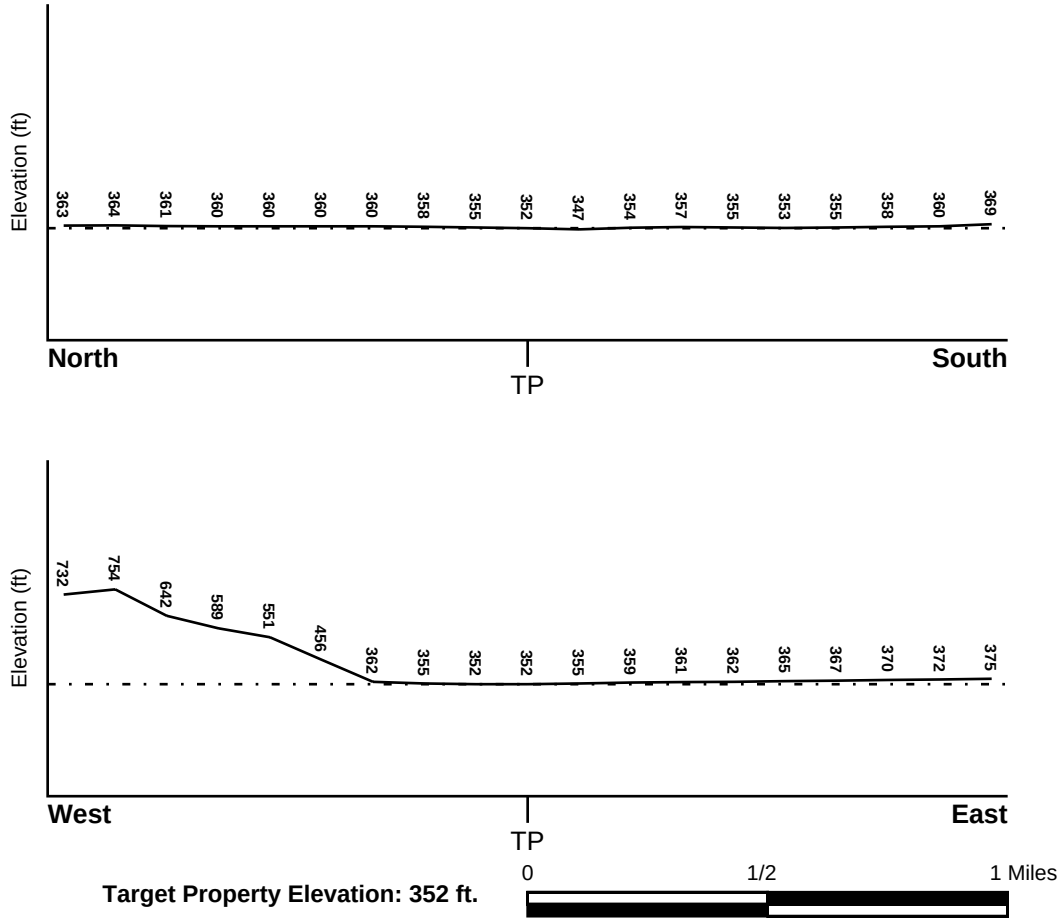
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06085C0443H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06085C0441H	FEMA FIRM Flood data
06085C0444H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
MORGAN HILL	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

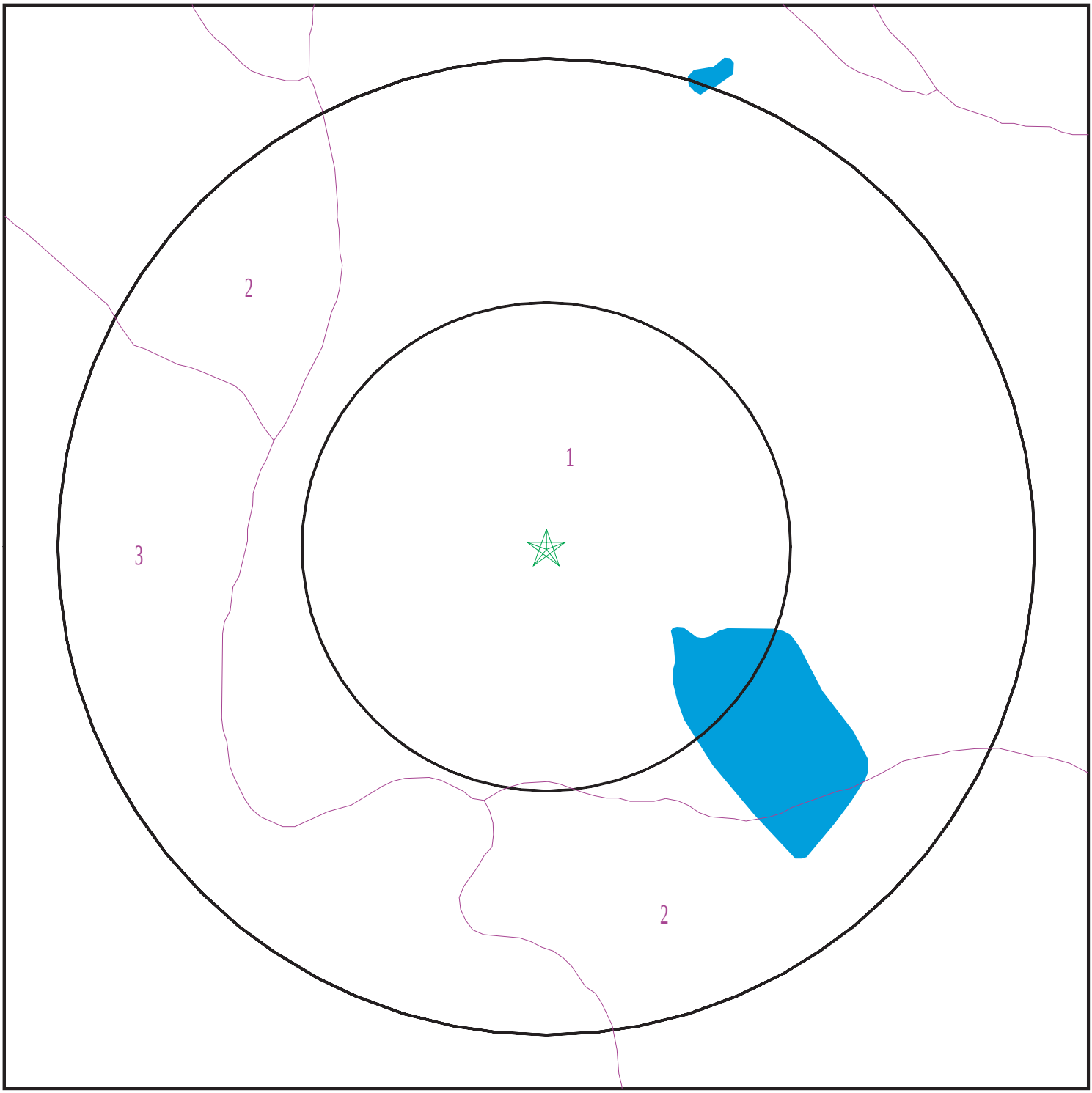
Era:	Mesozoic
System:	Cretaceous
Series:	Upper Mesozoic
Code:	uMze*(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Eugeosynclinal Deposits

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 - 6534496.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	18545 Monterey Road	CLIENT:	Stantec
ADDRESS:	18545 Monterey Road Morgan Hill CA 95037	CONTACT:	Alicia Jansen
		INQUIRY #:	6534496.2s
LAT/LONG:	37.142665 / 121.663322	DATE:	June 14, 2021 10:40 am

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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: SAN YSIDRO

Soil Surface Texture: loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 183 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	20 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	20 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
3	35 inches	50 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
4	50 inches	59 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: PLEASANTON

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: 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	18 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
2	18 inches	44 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
3	44 inches	66 inches	gravelly sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1

Soil Map ID: 3

Soil Component Name: MAXWELL

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not 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	25 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	25 inches	46 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
3	46 inches	59 inches	gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

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.

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B56	CA4300917	1/2 - 1 Mile SSE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

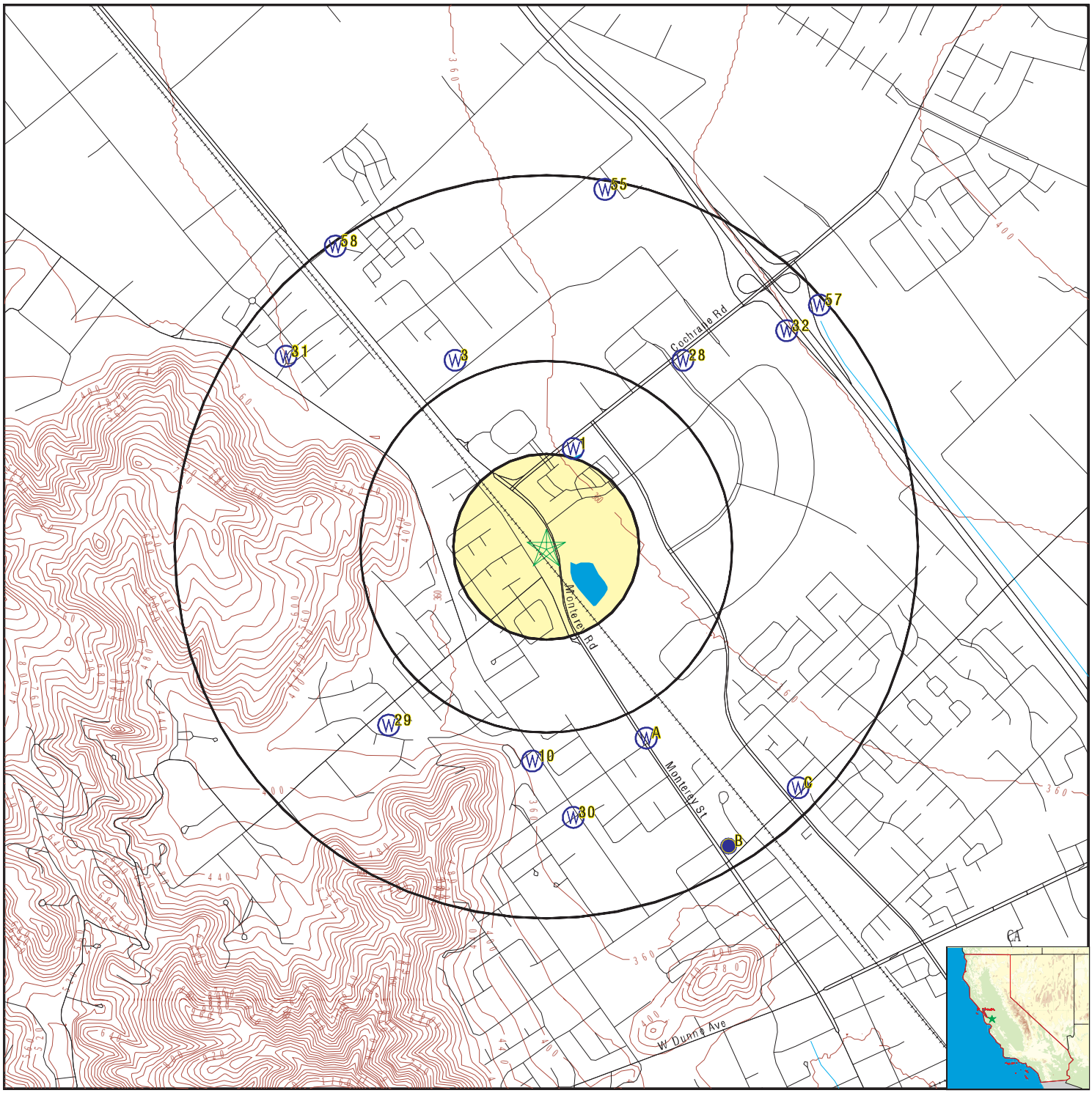
MAP ID	WELL ID	LOCATION FROM TP
1	CADWR0000009360	1/4 - 1/2 Mile NNE
A2	CAEDF0000082194	1/2 - 1 Mile SSE
3	9383	1/2 - 1 Mile NNW
A4	CAEDF0000115821	1/2 - 1 Mile SSE
A5	CAEDF0000128891	1/2 - 1 Mile SSE
A6	CAEDF0000081006	1/2 - 1 Mile SSE
A7	CAEDF0000127576	1/2 - 1 Mile SSE
A8	CAEDF0000117788	1/2 - 1 Mile SSE
A9	CAEDF0000017820	1/2 - 1 Mile SSE
10	CADWR8000032973	1/2 - 1 Mile South
A11	CAEDF0000142151	1/2 - 1 Mile SSE
A12	CAEDF0000041473	1/2 - 1 Mile SSE
A13	CAEDF0000072139	1/2 - 1 Mile SSE
A14	CAEDF0000066232	1/2 - 1 Mile SSE
A15	CAEDF0000021248	1/2 - 1 Mile SSE
A16	CAEDF0000084026	1/2 - 1 Mile SSE
A17	CAEDF0000066703	1/2 - 1 Mile SSE
A18	CAEDF0000049447	1/2 - 1 Mile SSE
A19	CAEDF0000103172	1/2 - 1 Mile SSE
A20	CAEDF0000139616	1/2 - 1 Mile SSE
A21	CAEDF0000000783	1/2 - 1 Mile SSE
A22	CAEDF0000047293	1/2 - 1 Mile SSE
A23	CAEDF0000009632	1/2 - 1 Mile SSE
A24	CAEDF0000116780	1/2 - 1 Mile SSE
A25	CAEDF0000113781	1/2 - 1 Mile SSE
A26	CAEDF0000088122	1/2 - 1 Mile SSE
A27	CAEDF0000005788	1/2 - 1 Mile SSE
28	9381	1/2 - 1 Mile NE
29	CADWR0000032570	1/2 - 1 Mile SW
30	CADWR0000012292	1/2 - 1 Mile South
31	CADWR0000013027	1/2 - 1 Mile NW
32	CADDW0000015881	1/2 - 1 Mile NE
B33	CAEDF0000014657	1/2 - 1 Mile SSE
B34	CAEDF0000087794	1/2 - 1 Mile SSE
B35	CAEDF0000118204	1/2 - 1 Mile SSE
B36	CAEDF0000112513	1/2 - 1 Mile SSE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
C37	9397	1/2 - 1 Mile SE
C38	9386	1/2 - 1 Mile SE
B39	CAEDF0000049224	1/2 - 1 Mile SSE
B40	CAEDF0000066385	1/2 - 1 Mile SSE
B41	CAEDF0000112832	1/2 - 1 Mile SSE
B42	CAEDF0000088499	1/2 - 1 Mile SSE
C43	CALLNL000001149	1/2 - 1 Mile SE
B44	CAEDF0000133579	1/2 - 1 Mile SSE
B45	CAEDF0000016117	1/2 - 1 Mile SSE
B46	CAEDF0000118324	1/2 - 1 Mile SSE
B47	CAEDF0000055410	1/2 - 1 Mile SSE
B48	CAEDF0000123007	1/2 - 1 Mile SSE
B49	CAEDF0000085860	1/2 - 1 Mile SSE
B50	CAEDF0000103805	1/2 - 1 Mile SSE
B51	CAEDF0000038834	1/2 - 1 Mile SSE
B52	CAEDF0000071603	1/2 - 1 Mile SSE
B53	CAEDF0000021724	1/2 - 1 Mile SSE
B54	CAEDF0000042625	1/2 - 1 Mile SSE
55	9382	1/2 - 1 Mile North
57	CADWR8000033086	1/2 - 1 Mile NE
58	CADDW0000018085	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 6534496.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	18545 Monterey Road	CLIENT:	Stantec
ADDRESS:	18545 Monterey Road Morgan Hill CA 95037	CONTACT:	Alicia Jansen
		INQUIRY #:	6534496.2s
LAT/LONG:	37.142665 / 121.663322	DATE:	June 14, 2021 10:40 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NNE **CA WELLS** **CADWR0000009360**
1/4 - 1/2 Mile
Higher

Well ID:	09S03E17K002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	09S03E17K002M	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=09S03E17K002M&store_num=		
GeoTracker Data:	Not Reported		

A2
SSE **CA WELLS** **CAEDF0000082194**
1/2 - 1 Mile
Higher

Well ID:	T0608502185-S-8	Well Type:	MONITORING
Source:	EDF	Other Name:	S-8
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-8&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-8		

3
NNW **CA WELLS** **9383**
1/2 - 1 Mile
Higher

Seq:	9383	Prim sta c:	09S/03E-17E03 M
Frds no:	4310006004	County:	43
District:	05	User id:	HEN
System no:	4310006	Water type:	G
Source nam:	BURNETT AVE - STANDBY	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	370900.0	Longitude:	1214000.0
Precision:	8	Status:	SR
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:	4310006	System nam:	City Of Morgan Hill
Hqname:	Not Reported	Address:	17555 Peak Avenue
City:	Morgan Hill	State:	CA
Zip:	95037	Zip ext:	Not Reported
Pop serv:	27948	Connection:	9290
Area serve:	CITY OF MORGAN HILL		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A4
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000115821**

Well ID:	T0608502185-S-21	Well Type:	MONITORING
Source:	EDF	Other Name:	S-21
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-21&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-21		

A5
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000128891**

Well ID:	T0608502185-S-24	Well Type:	MONITORING
Source:	EDF	Other Name:	S-24
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-24&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-24		

A6
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000081006**

Well ID:	T0608502185-S-23	Well Type:	MONITORING
Source:	EDF	Other Name:	S-23
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-23&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-23		

A7
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000127576**

Well ID:	T0608502185-S-3	Well Type:	MONITORING
Source:	EDF	Other Name:	S-3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-3		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A8
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000117788**

Well ID:	T0608502185-S-7	Well Type:	MONITORING
Source:	EDF	Other Name:	S-7
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-7&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-7		

A9
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000017820**

Well ID:	T0608502185-S-13	Well Type:	MONITORING
Source:	EDF	Other Name:	S-13
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-13&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-13		

10
South
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000032973**

State Well #:	09S03E20K003M	Station ID:	47684
Well Name:	09S03E20K003	Well Use:	Observation
Well Type:	Single Well	Well Depth:	100
Basin Name:	Llagas Area	Well Completion Rpt #:	e019171

A11
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000142151**

Well ID:	T0608502185-S-9	Well Type:	MONITORING
Source:	EDF	Other Name:	S-9
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-9&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-9		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A12
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000041473**

Well ID:	T0608502185-SV-1	Well Type:	MONITORING
Source:	EDF	Other Name:	SV-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=SV-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=SV-1		

A13
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000072139**

Well ID:	T0608502185-S-2	Well Type:	MONITORING
Source:	EDF	Other Name:	S-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-2		

A14
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000066232**

Well ID:	T0608502185-S-12	Well Type:	MONITORING
Source:	EDF	Other Name:	S-12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-12		

A15
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000021248**

Well ID:	T0608502185-S-20	Well Type:	MONITORING
Source:	EDF	Other Name:	S-20
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-20&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-20		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A16
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000084026**

Well ID:	T0608502185-SV-2	Well Type:	MONITORING
Source:	EDF	Other Name:	SV-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=SV-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=SV-2		

A17
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000066703**

Well ID:	T0608502185-S-16	Well Type:	MONITORING
Source:	EDF	Other Name:	S-16
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-16&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-16		

A18
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000049447**

Well ID:	T0608502185-S-4	Well Type:	MONITORING
Source:	EDF	Other Name:	S-4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-4		

A19
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000103172**

Well ID:	T0608502185-S-18	Well Type:	MONITORING
Source:	EDF	Other Name:	S-18
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-18&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-18		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A20
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000139616**

Well ID:	T0608502185-S-10	Well Type:	MONITORING
Source:	EDF	Other Name:	S-10
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-10&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-10		

A21
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000000783**

Well ID:	T0608502185-S-6	Well Type:	MONITORING
Source:	EDF	Other Name:	S-6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-6		

A22
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000047293**

Well ID:	T0608502185-S-19	Well Type:	MONITORING
Source:	EDF	Other Name:	S-19
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-19&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-19		

A23
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000009632**

Well ID:	T0608502185-S-1	Well Type:	MONITORING
Source:	EDF	Other Name:	S-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-1		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A24
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000116780**

Well ID:	T0608502185-S-22	Well Type:	MONITORING
Source:	EDF	Other Name:	S-22
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-22&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-22		

A25
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000113781**

Well ID:	T0608502185-S-17	Well Type:	MONITORING
Source:	EDF	Other Name:	S-17
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-17&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-17		

A26
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000088122**

Well ID:	T0608502185-S-11	Well Type:	MONITORING
Source:	EDF	Other Name:	S-11
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-11&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-11		

A27
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000005788**

Well ID:	T0608502185-S-5	Well Type:	MONITORING
Source:	EDF	Other Name:	S-5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608502185&assigned_name=S-5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608502185&assigned_name=S-5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

28
NE
1/2 - 1 Mile
Higher

CA WELLS **9381**

Seq:	9381	Prim sta c:	09S/03E-16M03 M
Frds no:	4310006005	County:	43
District:	05	User id:	HEN
System no:	4310006	Water type:	G
Source nam:	COCHRAN WELL - STANDBY	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	370900.0	Longitude:	1213920.0
Precision:	3	Status:	SR
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:	4310006	System nam:	City Of Morgan Hill
Hqname:	Not Reported	Address:	17555 Peak Avenue
City:	Morgan Hill	State:	CA
Zip:	95037	Zip ext:	Not Reported
Pop serv:	27948	Connection:	9290
Area serve:	CITY OF MORGAN HILL		

29
SW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000032570**

Well ID:	09S03E20E004M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	09S03E20E004M	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=09S03E20E004M&store_num=		
GeoTracker Data:	Not Reported		

30
South
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000012292**

Well ID:	09S03E20K001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	09S03E20K001M	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=09S03E20K001M&store_num=		
GeoTracker Data:	Not Reported		

31
NW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000013027**

Well ID:	09S03E18H003M	Well Type:	UNK
Source:	Department of Water Resources		

Other Name: 09S03E18H003M 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=09S03E18H003M&store_num=
GeoTracker Data: Not Reported

32
NE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000015881**

Well ID: 4310006-005 Well Type: MUNICIPAL
Source: Department of Health Services
Other Name: COCHRAN WELL - 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=4310006-005&store_num=
GeoTracker Data: Not Reported

B33
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000014657**

Well ID: T0608531232-MW-7 Well Type: MONITORING
Source: EDF Other Name: MW-7
GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-7&store_num=
GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-7

B34
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000087794**

Well ID: T0608531232-MW-19 Well Type: MONITORING
Source: EDF Other Name: MW-19
GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-19&store_num=
GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-19

B35
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000118204**

Well ID: T0608531232-MW-11 Well Type: MONITORING
Source: EDF Other Name: MW-11
GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-11&store_num=
GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-11

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B36
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000112513**

Well ID:	T0608531232-MW-8	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-8
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-8&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-8		

C37
SE
1/2 - 1 Mile
Higher

CA WELLS **9397**

Seq:	9397	Prim sta c:	09S/03E-28B02 M
Frds no:	4310006007	County:	43
District:	05	User id:	HEN
System no:	4310006	Water type:	G
Source nam:	DIANA WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	370800.0	Longitude:	1213900.0
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:	4310006	System nam:	City Of Morgan Hill
Hqname:	Not Reported	Address:	17555 Peak Avenue
City:	Morgan Hill	State:	CA
Zip:	95037	Zip ext:	Not Reported
Pop serv:	27948	Connection:	9290
Area serve:	CITY OF MORGAN HILL		

Sample date:	26-NOV-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	19-NOV-12	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	12-NOV-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	05-NOV-12	Finding:	26.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	29-OCT-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	22-OCT-12	Finding:	29.

Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-OCT-12	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-OCT-12	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-OCT-12	Finding:	29.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-SEP-12	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-SEP-12	Finding:	26.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-SEP-12	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-SEP-12	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-AUG-12	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-AUG-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-AUG-12	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-JUL-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-12	Finding:	29.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JUL-12	Finding:	29.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUL-12	Finding:	29.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-JUN-12	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	19-JUN-12	Finding:	29.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-MAY-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	31-JAN-12	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	31-JAN-12	Finding:	400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

C38
SE
1/2 - 1 Mile
Higher

CA WELLS 9386

Seq:	9386	Prim sta c:	09S/03E-21K04 M
Frds no:	4310006012	County:	43
District:	05	User id:	HEN
System no:	4310006	Water type:	G
Source nam:	MAIN AVE	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	370800.0	Longitude:	1213900.0
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:	4310006	System nam:	City Of Morgan Hill
Hqname:	Not Reported	Address:	17555 Peak Avenue
City:	Morgan Hill	State:	CA
Zip:	95037	Zip ext:	Not Reported
Pop serv:	27948	Connection:	9290
Area serve:	CITY OF MORGAN HILL		
Sample date:	22-MAY-17	Finding:	47.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	11.75
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	0.19
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	22-MAY-17	Finding:	560.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	7.61
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	120.

Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	2.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-MAY-17	Finding:	203.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	2.2
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-MAY-17	Finding:	21.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	27.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	1.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	73.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	22-MAY-17	Finding:	40.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	22-MAY-17	Finding:	0.13
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	22-MAY-17	Finding:	340.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	16-MAY-16	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-MAR-15	Finding:	2.1
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	28-MAY-14	Finding:	589.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	7.5
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

Sample date:	28-MAY-14	Finding:	140.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	171.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	300.
Chemical:	NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-MAY-14	Finding:	224.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	50.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	24.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	30.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	1.5
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	66.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	35.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	28-MAY-14	Finding:	65.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	28-MAY-14	Finding:	8.
Chemical:	CHROMIUM (TOTAL)	Report units:	UG/L
Dlr:	10.		
Sample date:	28-MAY-14	Finding:	308.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	0.45
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	0.1
Chemical:	BROMIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	28-MAY-14	Finding:	11.7
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported

Dlr:	0.		
Sample date:	28-MAY-14	Finding:	3000.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-MAY-14	Finding:	560.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	22-JUL-13	Finding:	570.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	1.4
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	2700.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-MAY-13	Finding:	3.
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	569.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	7.4
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	131.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	205.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	46.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	22.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	29.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	60.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	29-MAY-13	Finding:	32.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	29-MAY-13	Finding:	69.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	29-MAY-13	Finding:	3.
Chemical:	CHROMIUM (TOTAL)	Report units:	UG/L
Dlr:	10.		
Sample date:	29-MAY-13	Finding:	13.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		
Sample date:	29-MAY-13	Finding:	348.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	0.28
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	10.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	31-JAN-12	Finding:	520.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

B39
SSE **CA WELLS** **CAEDF0000049224**
1/2 - 1 Mile
Higher

Well ID:	T0608531232-MW-20	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-20
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-20&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-20		

B40
SSE **CA WELLS** **CAEDF0000066385**
1/2 - 1 Mile
Higher

Well ID:	T0608531232-MW-13	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-13
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-13&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-13		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B41
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000112832**

Well ID:	T0608531232-MW-1	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-1		

B42
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000088499**

Well ID:	T0608531232-MW-4	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-4		

C43
SE
1/2 - 1 Mile
Higher

CA WELLS **CALLNL000001149**

Well ID:	101269	Well Type:	MUNICIPAL
Source:	Lawrence Livermore National Laboratory		
Other Name:	09S/03E-22E06 M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	Not Reported		
GeoTracker Data:	Not Reported		

Chemical:	Helium-3/Helium-4	Results:	.00000142866
Units:	atom ratio	Date:	01/25/2002
Chemical:	Helium-4	Results:	.000000171131
Units:	cm3STP/g	Date:	01/25/2002
Chemical:	Krypton	Results:	.000000108742
Units:	cm3STP/g	Date:	01/25/2002
Chemical:	Tritium (Hydrogen 3)	Results:	12.17
Units:	pCi/L	Date:	05/31/2002
Chemical:	Neon	Results:	.000000630861
Units:	cm3STP/g	Date:	01/25/2002

Chemical:	Xenon	Results:	.000000014557
Units:	cm3STP/g	Date:	01/25/2002
Chemical:	Argon	Results:	.000626901
Units:	cm3STP/g	Date:	01/25/2002

B44
SSE **CA WELLS** **CAEDF0000133579**
1/2 - 1 Mile
Higher

Well ID:	T0608531232-MW-18	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-18
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-18&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-18		

B45
SSE **CA WELLS** **CAEDF0000016117**
1/2 - 1 Mile
Higher

Well ID:	T0608531232-MW-14	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-14
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-14&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-14		

B46
SSE **CA WELLS** **CAEDF0000118324**
1/2 - 1 Mile
Higher

Well ID:	T0608531232-MW-12	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-12		

B47
SSE **CA WELLS** **CAEDF0000055410**
1/2 - 1 Mile
Higher

Well ID:	T0608531232-MW-9	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-9
GAMA PFAS Testing:	Not Reported		

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-9&store_num=
GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-9

B48
SSE **CA WELLS** **CAEDF0000123007**
1/2 - 1 Mile
Higher

Well ID: T0608531232-MW-10 Well Type: MONITORING
Source: EDF Other Name: MW-10
GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-10&store_num=
GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-10

B49
SSE **CA WELLS** **CAEDF0000085860**
1/2 - 1 Mile
Higher

Well ID: T0608531232-MW-15 Well Type: MONITORING
Source: EDF Other Name: MW-15
GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-15&store_num=
GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-15

B50
SSE **CA WELLS** **CAEDF0000103805**
1/2 - 1 Mile
Higher

Well ID: T0608531232-MW-2 Well Type: MONITORING
Source: EDF Other Name: MW-2
GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-2&store_num=
GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-2

B51
SSE **CA WELLS** **CAEDF0000038834**
1/2 - 1 Mile
Higher

Well ID: T0608531232-MW-17 Well Type: MONITORING
Source: EDF Other Name: MW-17
GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-17&store_num=

GeoTracker Data: https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-17

B52
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000071603**

Well ID:	T0608531232-MW-16	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-16
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-16&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-16		

B53
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000021724**

Well ID:	T0608531232-MW-3	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-3		

B54
SSE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000042625**

Well ID:	T0608531232-MW-6	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608531232&assigned_name=MW-6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608531232&assigned_name=MW-6		

55
North
1/2 - 1 Mile
Higher

CA WELLS **9382**

Seq:	9382	Prim sta c:	09S/03E-17A05 M
Frds no:	4300848001	County:	43
District:	73	User id:	43C
System no:	4300848	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	370924.0	Longitude:	1213934.0
Precision:	3	Status:	AU

Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	4300848	System nam:	Rancho De Loma Water System
Hqname:	Not Reported	Address:	19170 CALLE MONIZ
City:	MORGAN HILL	State:	CA
Zip:	95037	Zip ext:	Not Reported
Pop serv:	400	Connection:	1
Area serve:	Not Reported		

B56
SSE
1/2 - 1 Mile
Higher

FRDS PWS **CA4300917**

Epa region:	09	State:	CA
Pwsid:	CA4300917	Pwsname:	CALIFORNIA DIV OF FORESTRY
Cityserved:	Not Reported	Stateserved:	CA
Zipserved:	Not Reported	Fipscounty:	06085
Status:	Closed	Retpopsrvd:	25
Pwssvcconn:	5	Psource longname:	Groundwater
Pwstype:	TNCWS	Owner:	State_Govt
Contact:	CALIFORNIA DIV OF FORESTRY		
Contactorgname:	Not Reported	Contactphone:	Not Reported
Contactaddress1:	Not Reported	Contactaddress2:	Not Reported
Contactcity:	MORGAN HILL	Contactstate:	CA
Contactzip:	95037	Pwsactivitycode:	N
PWS ID:	CA4300917	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	CA4300917
Activity status:	Active	Date system activated:	8405
Date system deactivated:	Not Reported	Retail population:	00000025
System name:	CALIFORNIA DIV OF FORESTRY		
System address:	Not Reported	System city:	MORGAN HILL
System state:	CA	System zip:	95037
County FIPS:	Not Reported	City served:	NC PARK RES
Population served:	Under 101 Persons	Treatment:	Untreated
Latitude:	370750	Longitude:	1213911

57
NE
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000033086**

State Well #:	09S03E16F002M	Station ID:	47682
Well Name:	09S03E16F002	Well Use:	Observation
Well Type:	Single Well	Well Depth:	520
Basin Name:	Santa Clara	Well Completion Rpt #:	e027978

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database	EDR ID Number
CA WELLS	**CADDW0000018085**

58
NW
1/2 - 1 Mile
Lower

Well ID:	4310006-004	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	BURNETT AVE - IRRIGATION (2004)		
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=4310006-004&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
95037	21	0

Federal EPA Radon Zone for SANTA CLARA 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: 95037

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	-0.300 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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Appendix E HISTORICAL RECORDS

18545 Monterey Road

18545 Monterey Road

Morgan Hill, CA 95037

Inquiry Number: 6534496.3

June 14, 2021

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

06/14/21

Site Name:

18545 Monterey Road
18545 Monterey Road
Morgan Hill, CA 95037
EDR Inquiry # 6534496.3

Client Name:

Stantec
735 E. Carnegie Drive, Suite 280
SAN BERNARDINO, CA 92408
Contact: Alicia Jansen

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Stantec 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 # 8CE9-45DB-A558

PO # NA

Project NA

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 #: 8CE9-45DB-A558

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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18545 Monterey Road

18545 Monterey Road

Morgan Hill, CA 95037

Inquiry Number: 6534496.4

June 14, 2021

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

06/14/21

Site Name:

18545 Monterey Road
18545 Monterey Road
Morgan Hill, CA 95037
EDR Inquiry # 6534496.4

Client Name:

Stantec
735 E. Carnegie Drive, Suite 280
SAN BERNARDINO, CA 92408
Contact: Alicia Jansen

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Stantec 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: NA

Coordinates:

Latitude:	37.142665 37° 8' 34" North
Longitude:	-121.663322 -121° 39' 48" West
UTM Zone:	Zone 10 North
UTM X Meters:	618712.73
UTM Y Meters:	4111535.05
Elevation:	352.66' above sea level

Maps Provided:

2012
1980
1973
1968
1955
1939
1917

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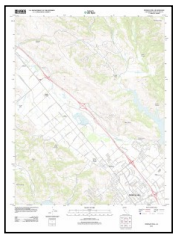
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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Morgan Hill
2012
7.5-minute, 24000



Mount Madonna
2012
7.5-minute, 24000

1980 Source Sheets



Morgan Hill
1980
7.5-minute, 24000
Aerial Photo Revised 1978



Mt. Madonna
1980
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets



Morgan Hill
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1968 Source Sheets



Mt. Madonna
1968
7.5-minute, 24000
Aerial Photo Revised 1968



Morgan Hill
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1955 Source Sheets

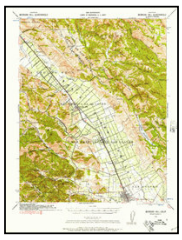


Morgan Hill
1955
7.5-minute, 24000
Aerial Photo Revised 1953



Mt. Madonna
1955
7.5-minute, 24000
Aerial Photo Revised 1953

1939 Source Sheets



Morgan Hill
1939
15-minute, 62500
Aerial Photo Revised 1939

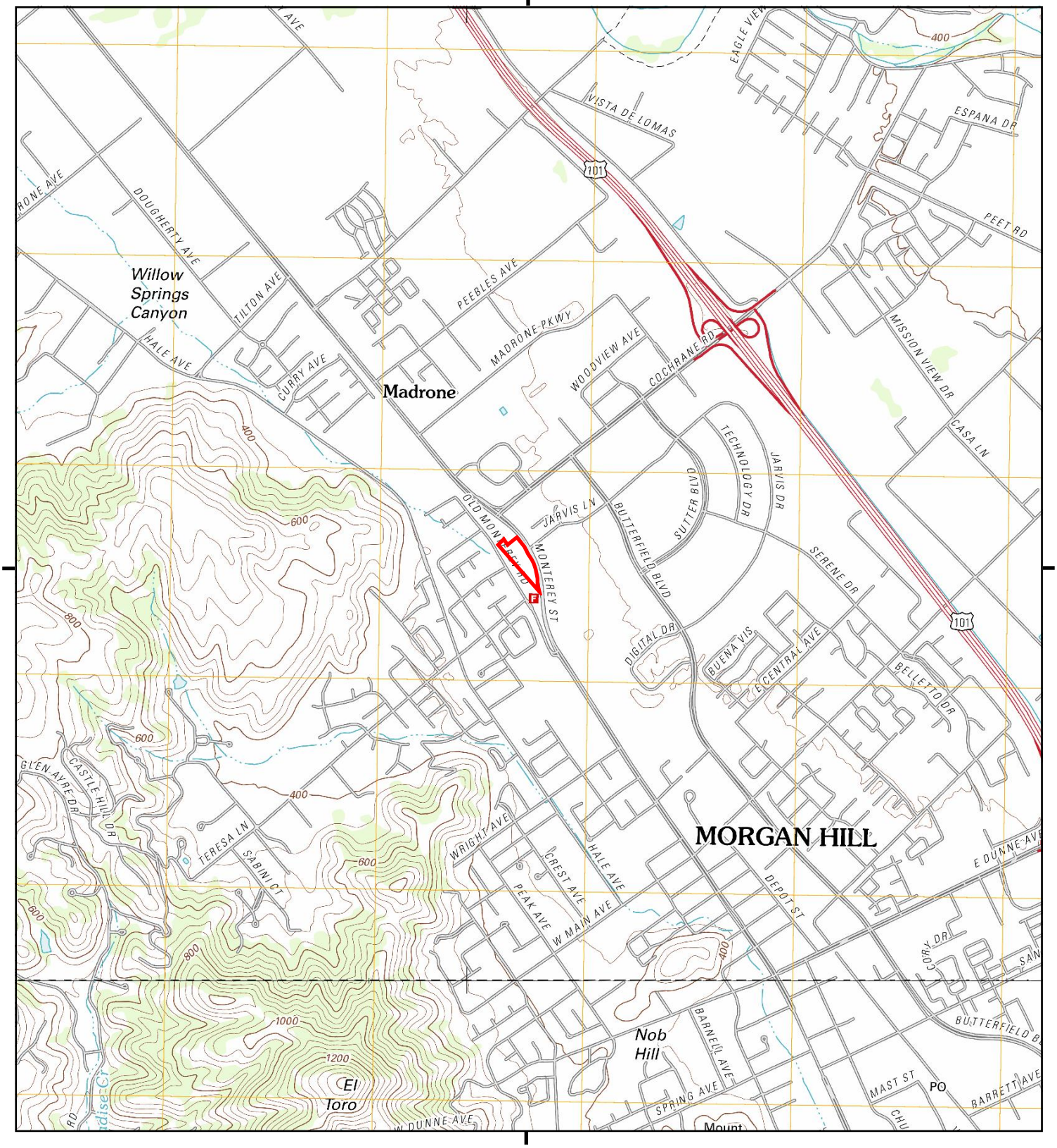
1917 Source Sheets



Morgan Hill
1917
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

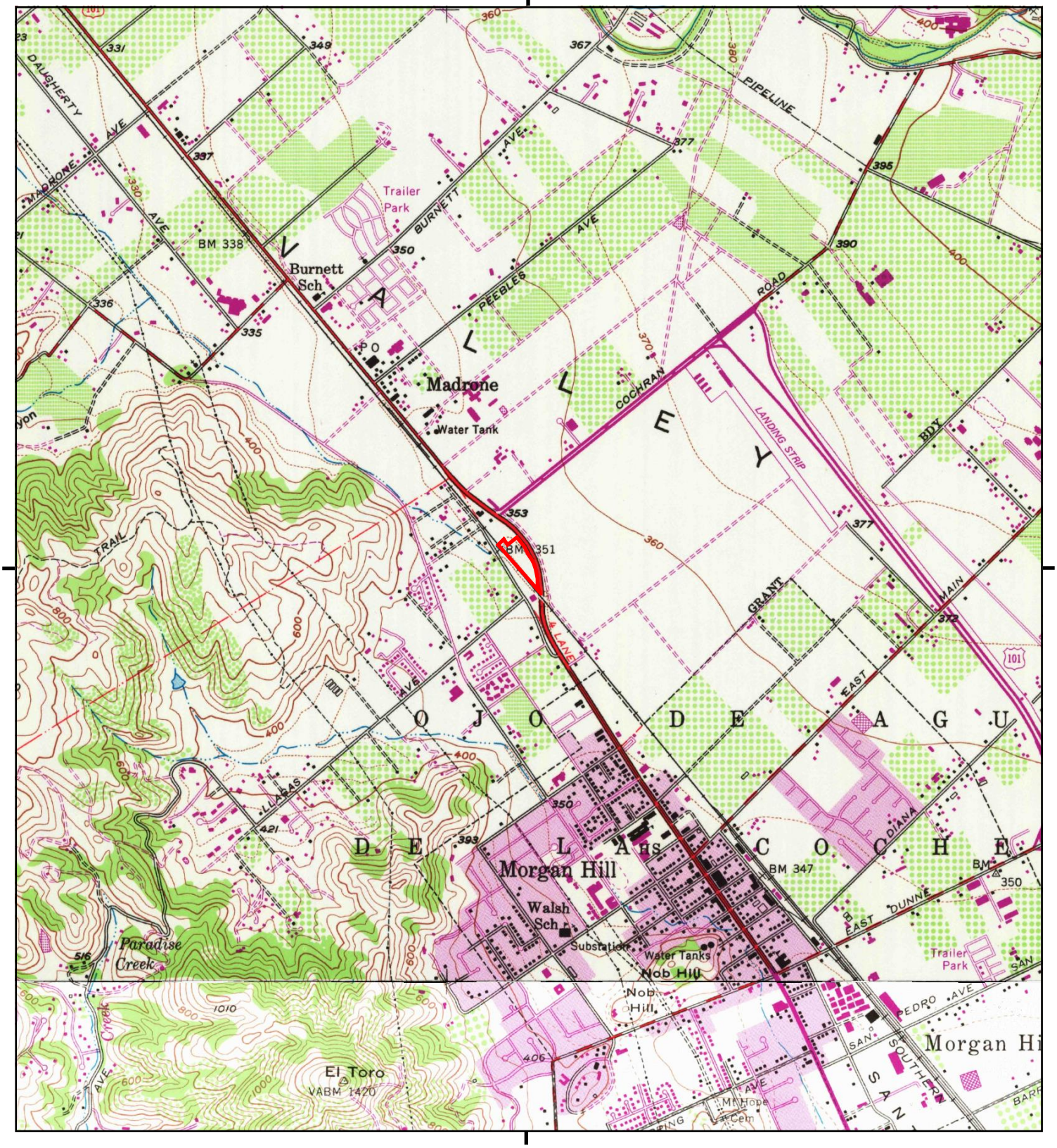
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Morgan Hill, 2012, 7.5-minute
S, Mount Madonna, 2012, 7.5-minute

SITE NAME: 18545 Monterey Road
ADDRESS: 18545 Monterey Road
Morgan Hill, CA 95037
CLIENT: Stantec

N



This report includes information from the following map sheet(s).

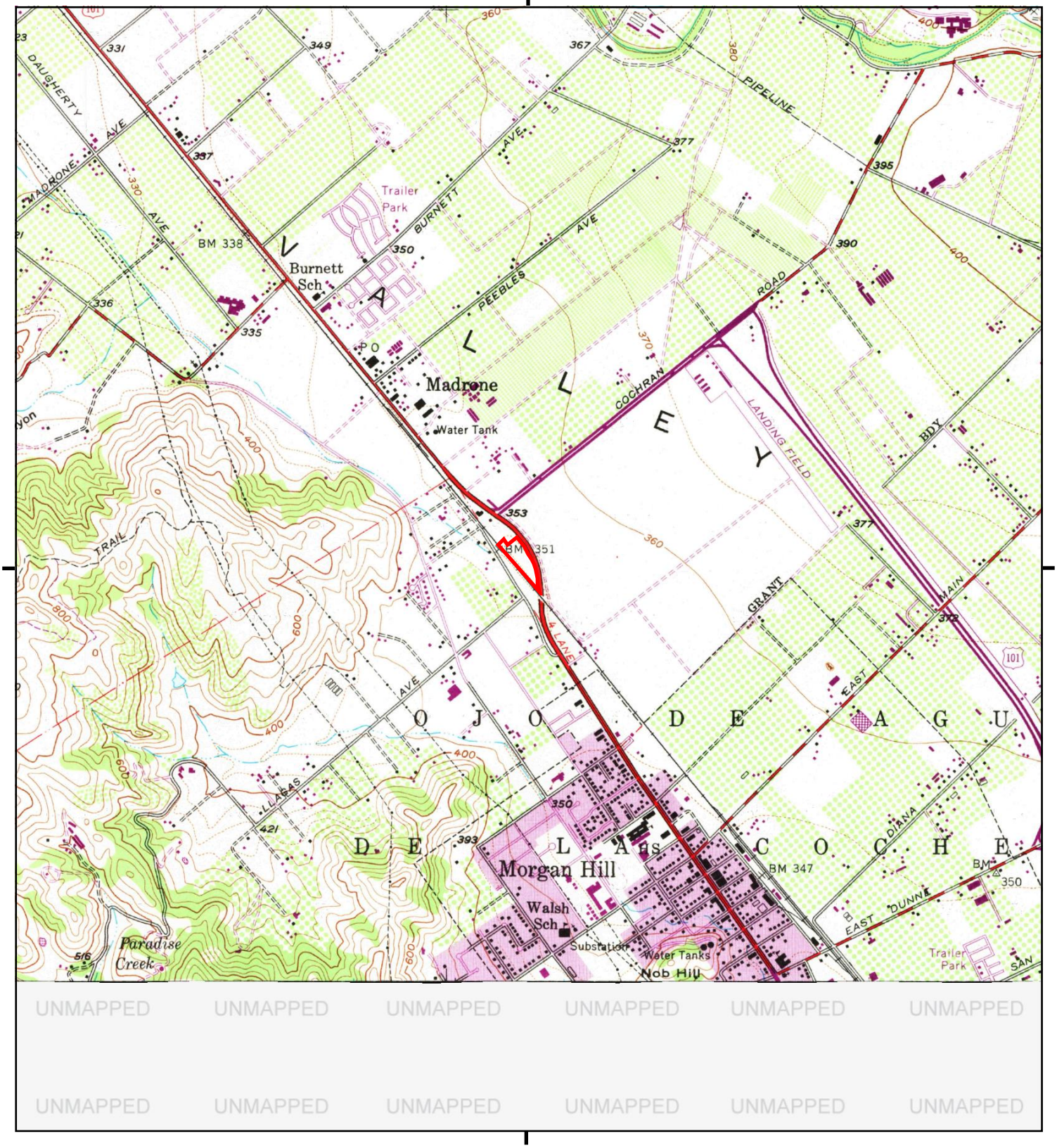
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Morgan Hill, 1980, 7.5-minute
S, Mt. Madonna, 1980, 7.5-minute

SITE NAME: 18545 Monterey Road
ADDRESS: 18545 Monterey Road
Morgan Hill, CA 95037
CLIENT: Stantec

N



UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED
UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED

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

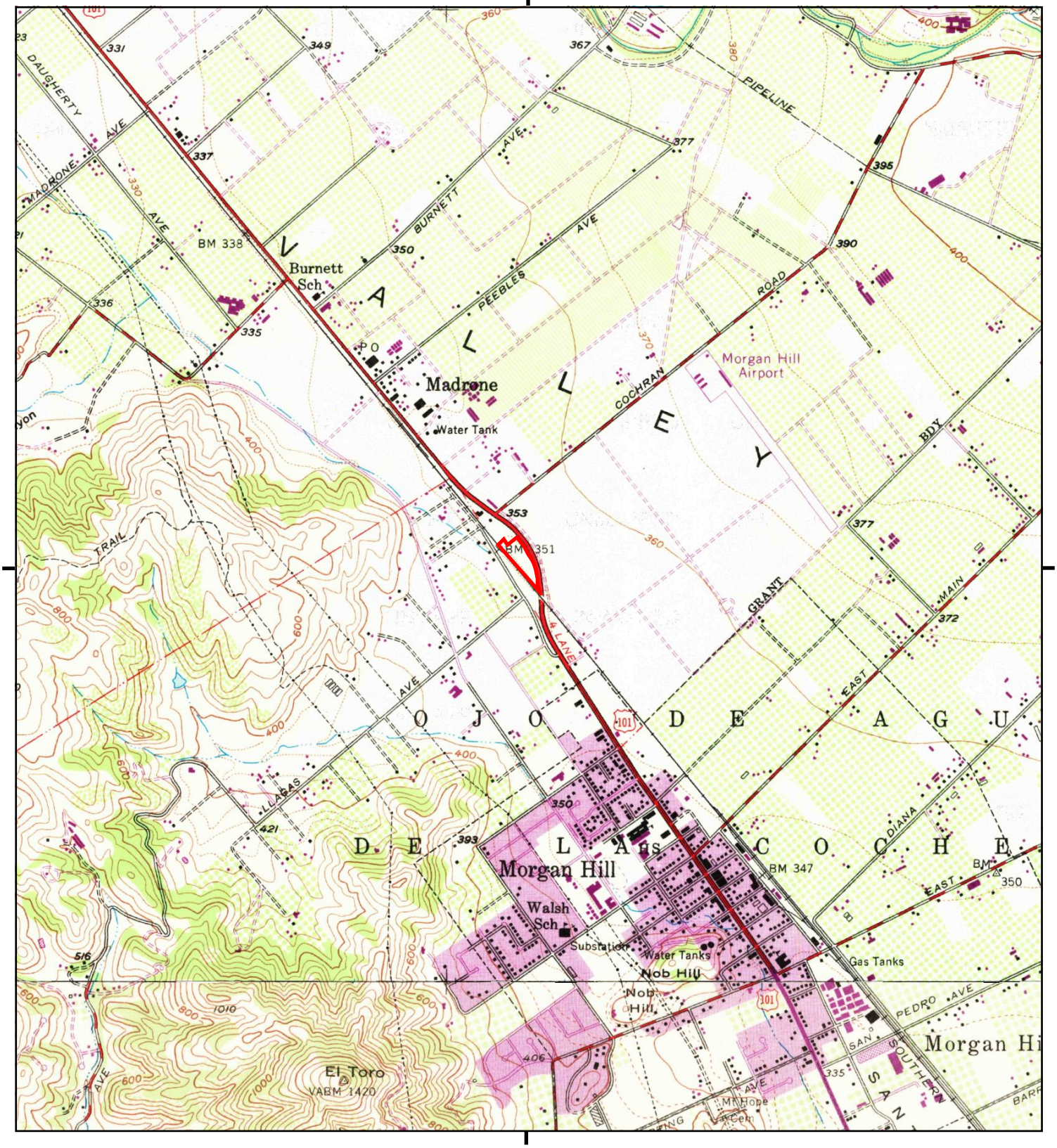
TP, Morgan Hill, 1973, 7.5-minute

SITE NAME: 18545 Monterey Road
ADDRESS: 18545 Monterey Road
Morgan Hill, CA 95037
CLIENT: Stantec

N

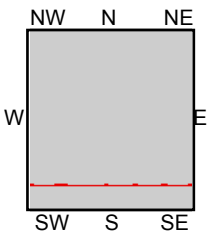
Historical Topo Map

1968



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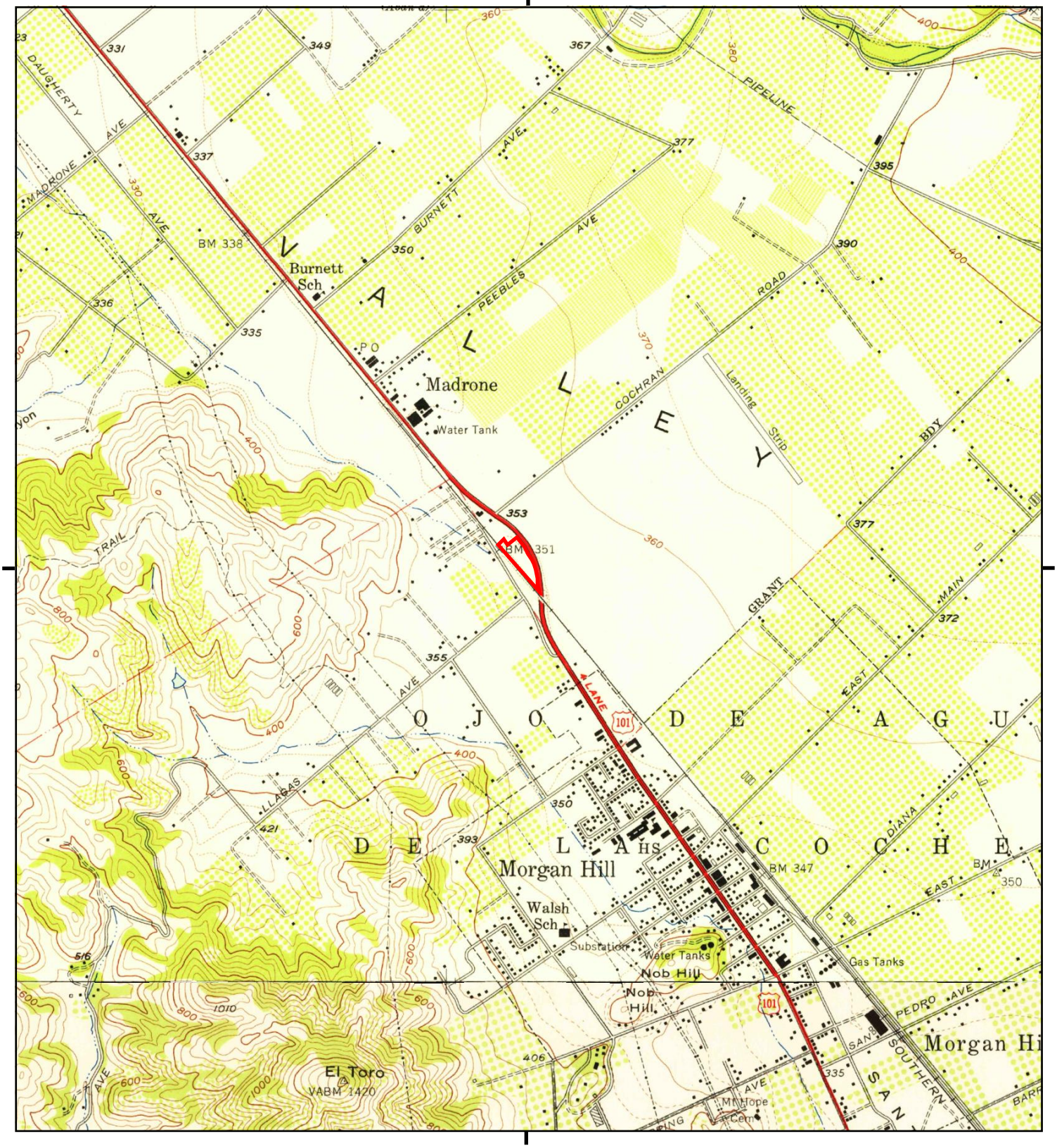
TP, Morgan Hill, 1968, 7.5-minute
S, Mt. Madonna, 1968, 7.5-minute

SITE NAME: 18545 Monterey Road
ADDRESS: 18545 Monterey Road
Morgan Hill, CA 95037
CLIENT: Stantec

N

Historical Topo Map

1955



This report includes information from the following map sheet(s).

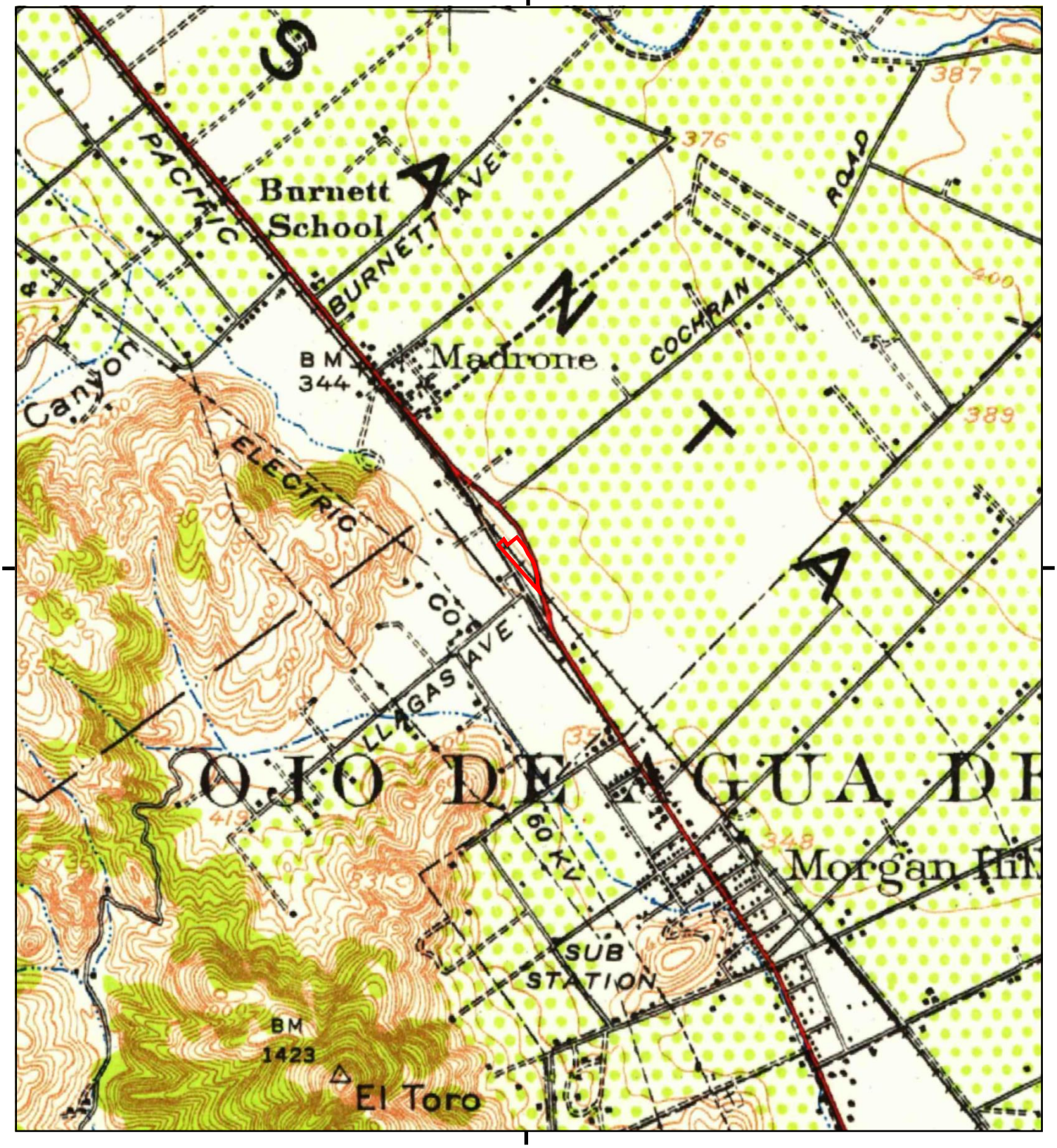
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Morgan Hill, 1955, 7.5-minute
S, Mt. Madonna, 1955, 7.5-minute

SITE NAME: 18545 Monterey Road
ADDRESS: 18545 Monterey Road
Morgan Hill, CA 95037
CLIENT: Stantec

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, Morgan Hill, 1939, 15-minute

SITE NAME: 18545 Monterey Road
ADDRESS: 18545 Monterey Road
Morgan Hill, CA 95037
CLIENT: Stantec

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, Morgan Hill, 1917, 15-minute

SITE NAME: 18545 Monterey Road
ADDRESS: 18545 Monterey Road
Morgan Hill, CA 95037
CLIENT: Stantec

N

18545 Monterey Road

18545 Monterey Road

Morgan Hill, CA 95037

Inquiry Number: 6534496.8

June 14, 2021

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

06/14/21

Site Name:

18545 Monterey Road
18545 Monterey Road
Morgan Hill, CA 95037
EDR Inquiry # 6534496.8

Client Name:

Stantec
735 E. Carnegie Drive, Suite 280
SAN BERNARDINO, CA 92408
Contact: Alicia Jansen

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

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
1998	1"=500'	Acquisition Date: August 21, 1998	USGS/DOQQ
1982	1"=500'	Flight Date: July 05, 1982	USDA
1974	1"=500'	Flight Date: July 12, 1974	USGS
1970	1"=500'	Flight Date: April 24, 1970	USGS
1968	1"=500'	Flight Date: June 14, 1968	USGS
1963	1"=500'	Flight Date: June 24, 1963	EDR Proprietary Aerial Viewpoint
1956	1"=500'	Flight Date: June 12, 1956	USDA
1950	1"=500'	Flight Date: March 28, 1950	USDA
1948	1"=500'	Flight Date: September 26, 1948	USDA
1940	1"=500'	Flight Date: June 09, 1940	USDA
1939	1"=500'	Flight Date: October 20, 1939	USDA

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INQUIRY #: 6534496.8

YEAR: 2016

= 500'

N

EDR



INQUIRY #: 6534496.8

YEAR: 2012

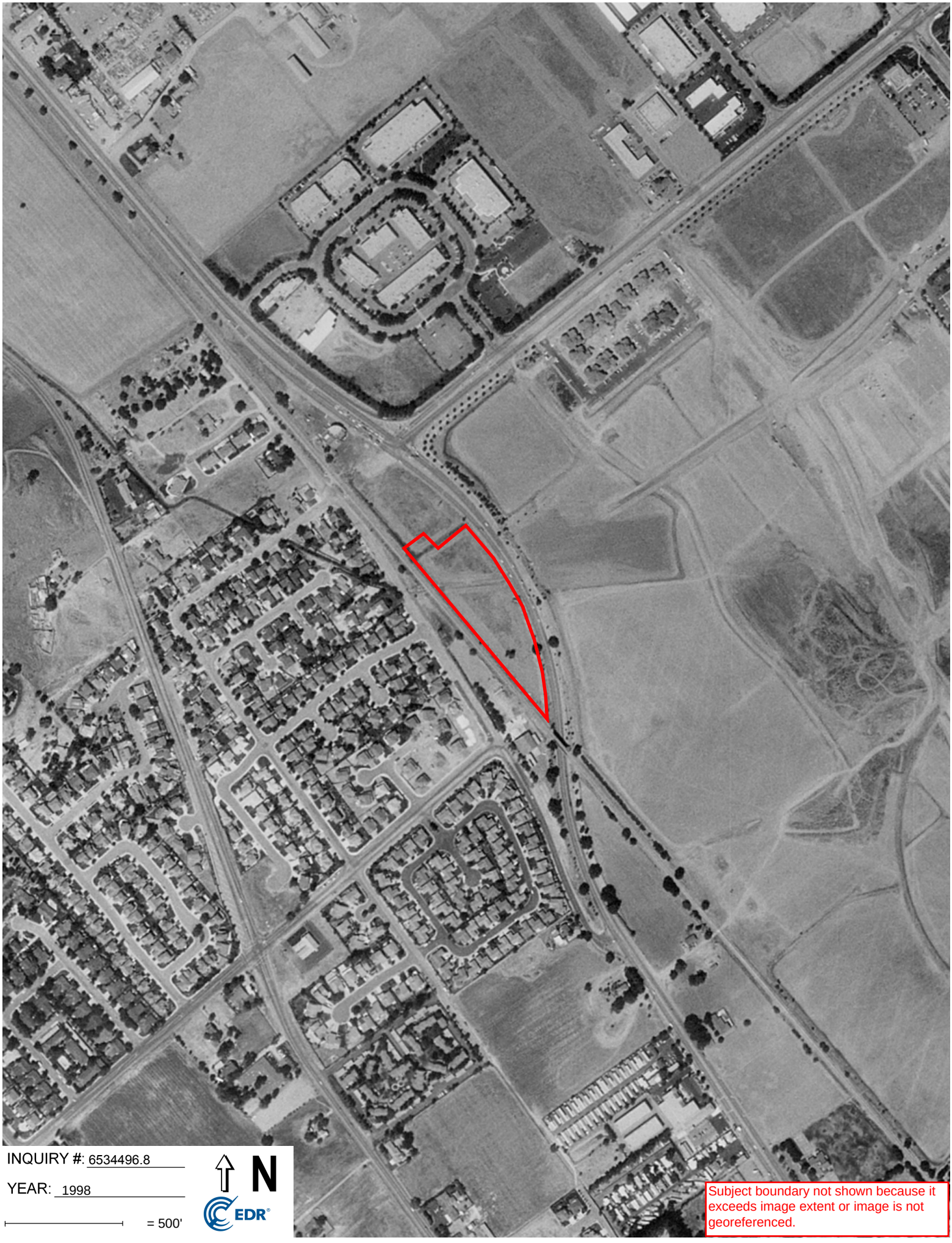
= 500'

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EDR

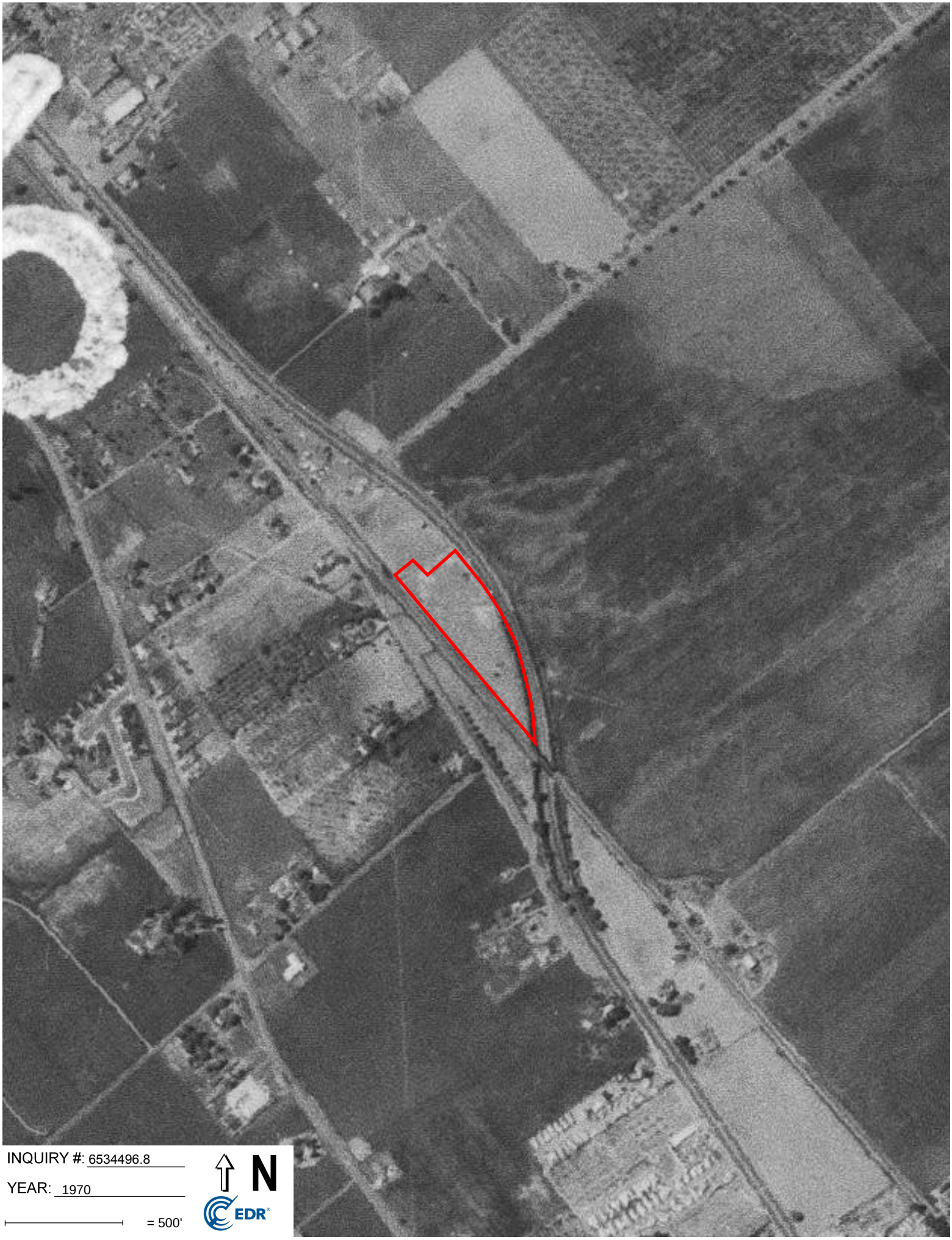

INQUIRY #: 6534496.8
YEAR: 2009
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EDR


INQUIRY #: 6534496.8
YEAR: 2006
= 500'
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EDR


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YEAR: 1998
= 500'
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EDR
Subject boundary not shown because it exceeds image extent or image is not georeferenced.


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EDR


INQUIRY #: 6534496.8
YEAR: 1974
= 500'
N
EDR



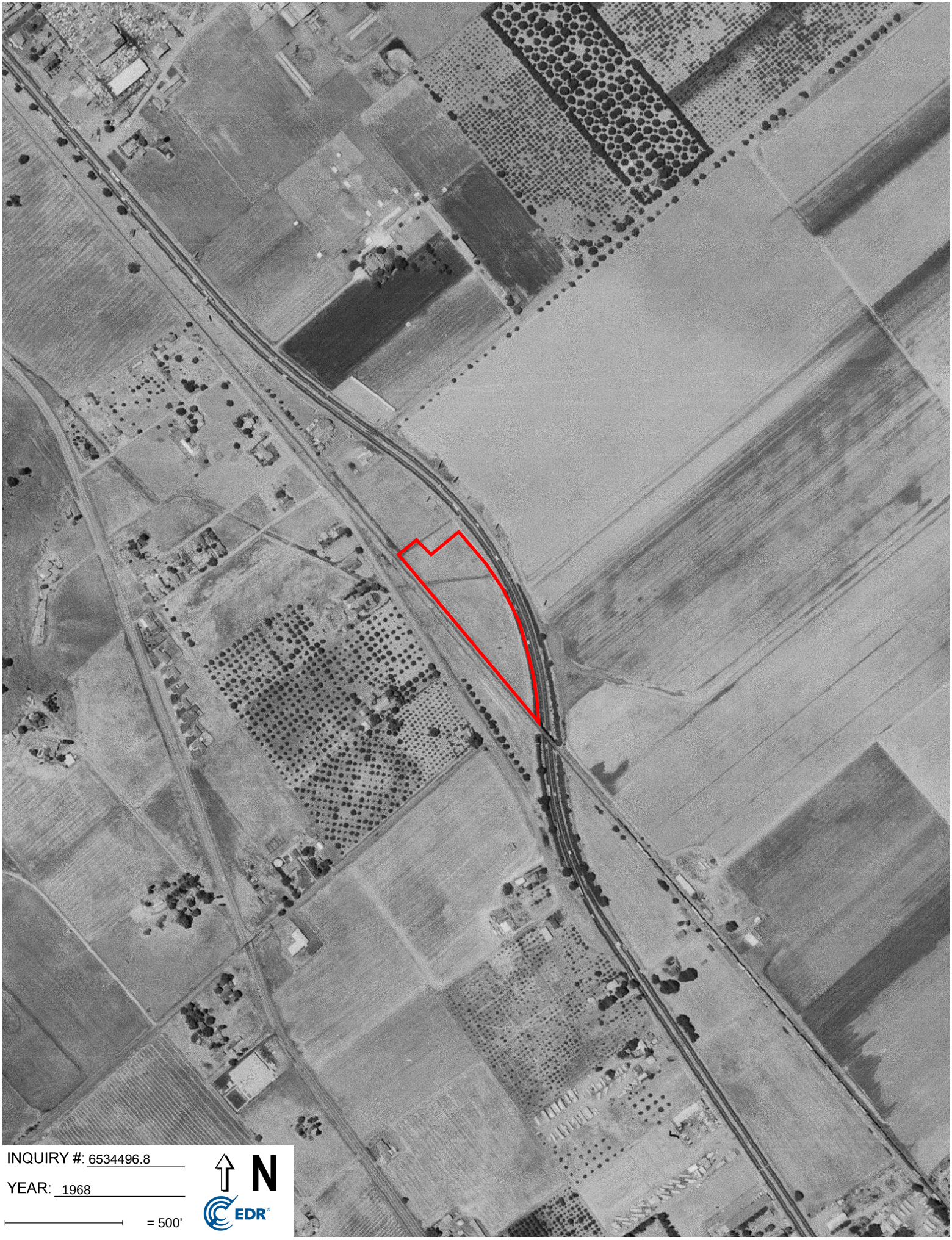
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YEAR: 1970

= 500'

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EDR


INQUIRY #: 6534496.8
YEAR: 1968
= 500'
N
EDR



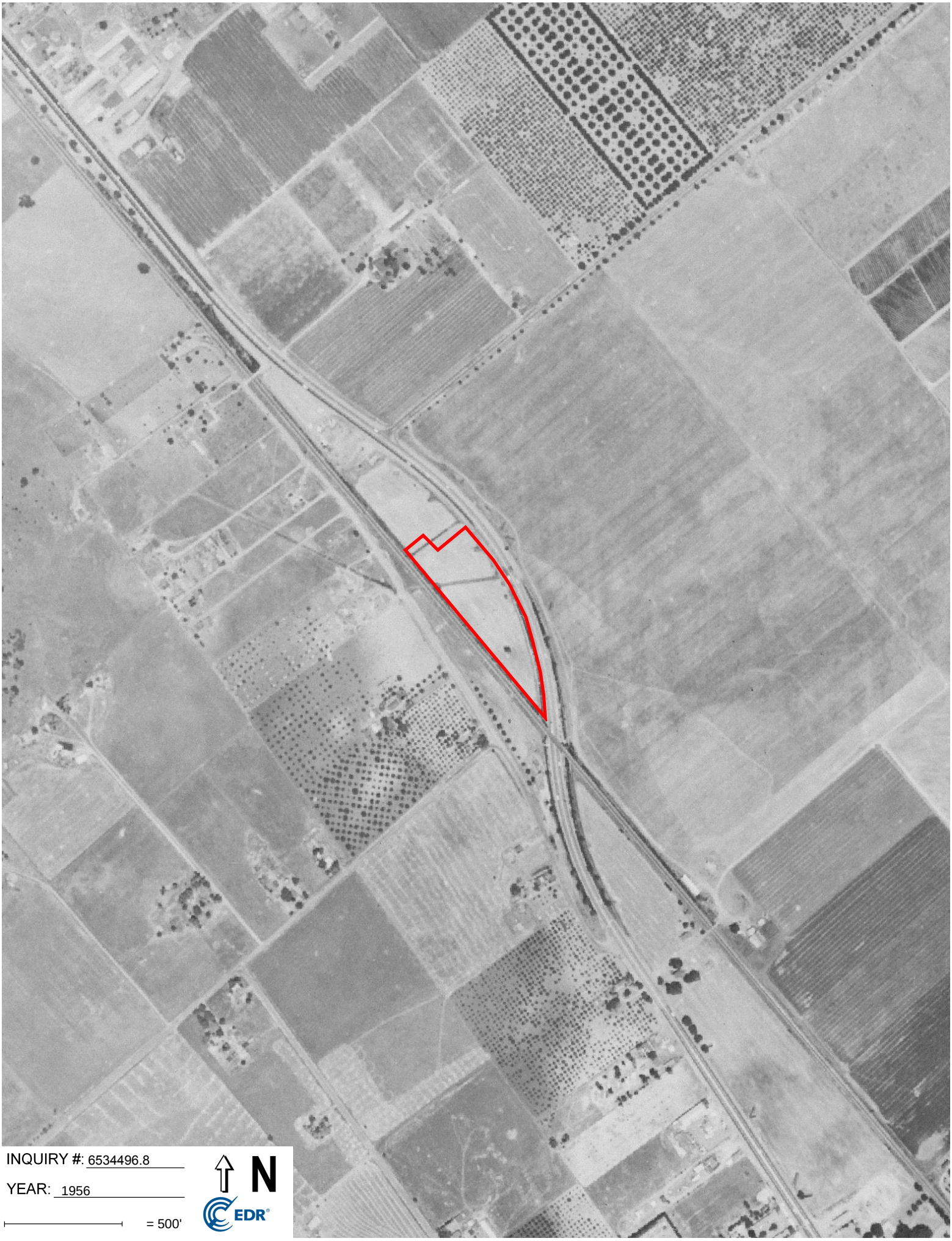
INQUIRY #: 6534496.8

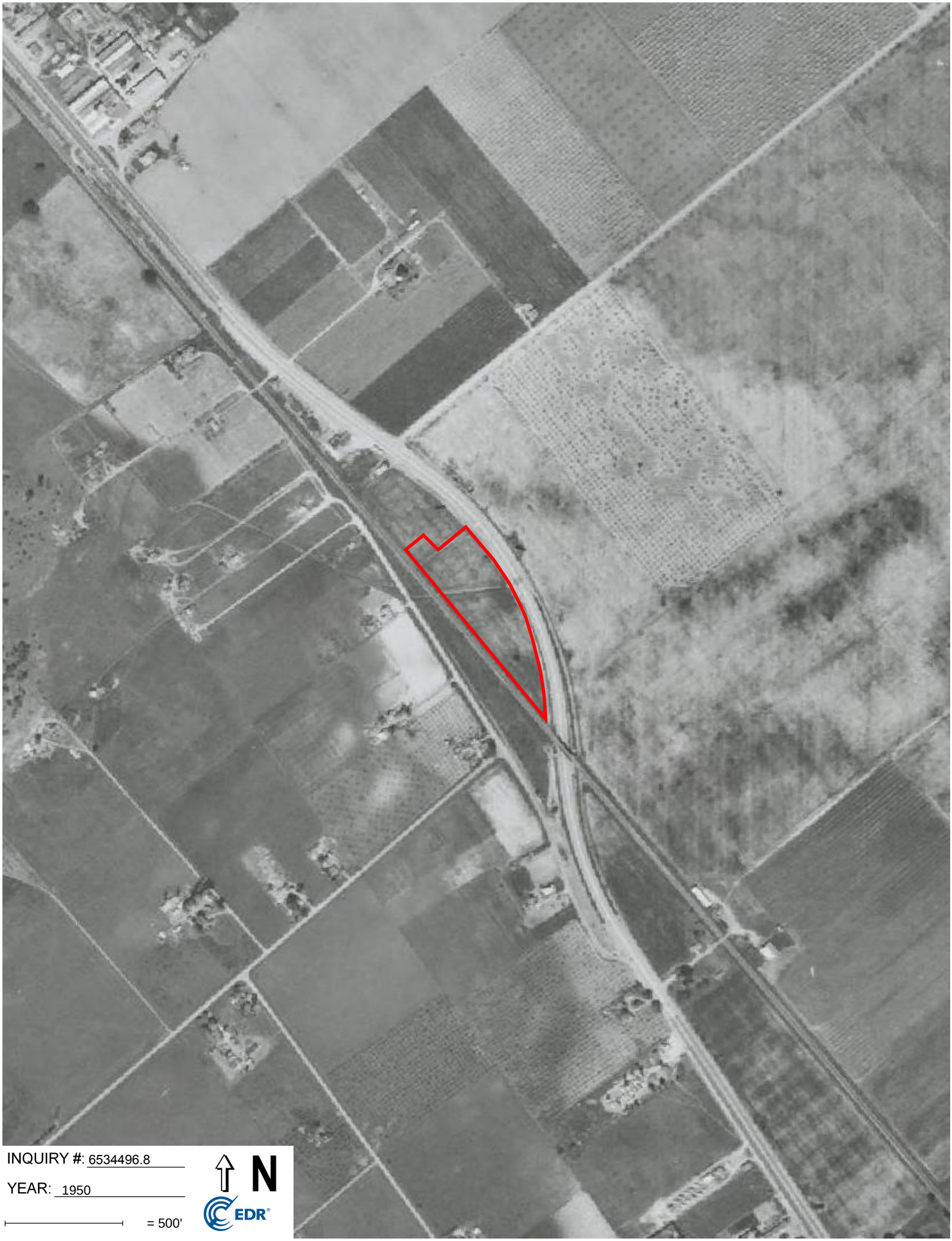
YEAR: 1963

= 500'

N

EDR


INQUIRY #: 6534496.8
YEAR: 1956
= 500'
N
EDR



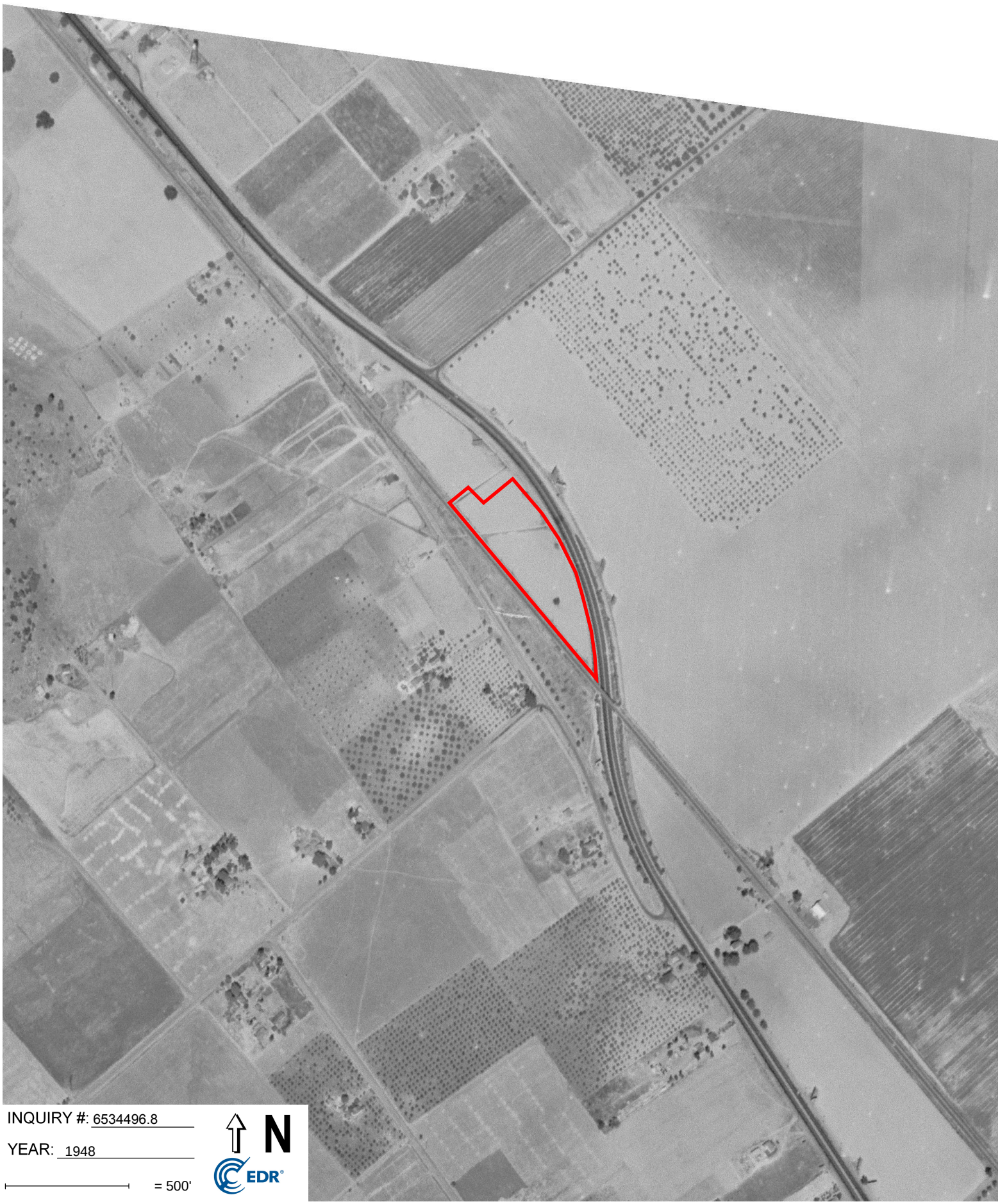
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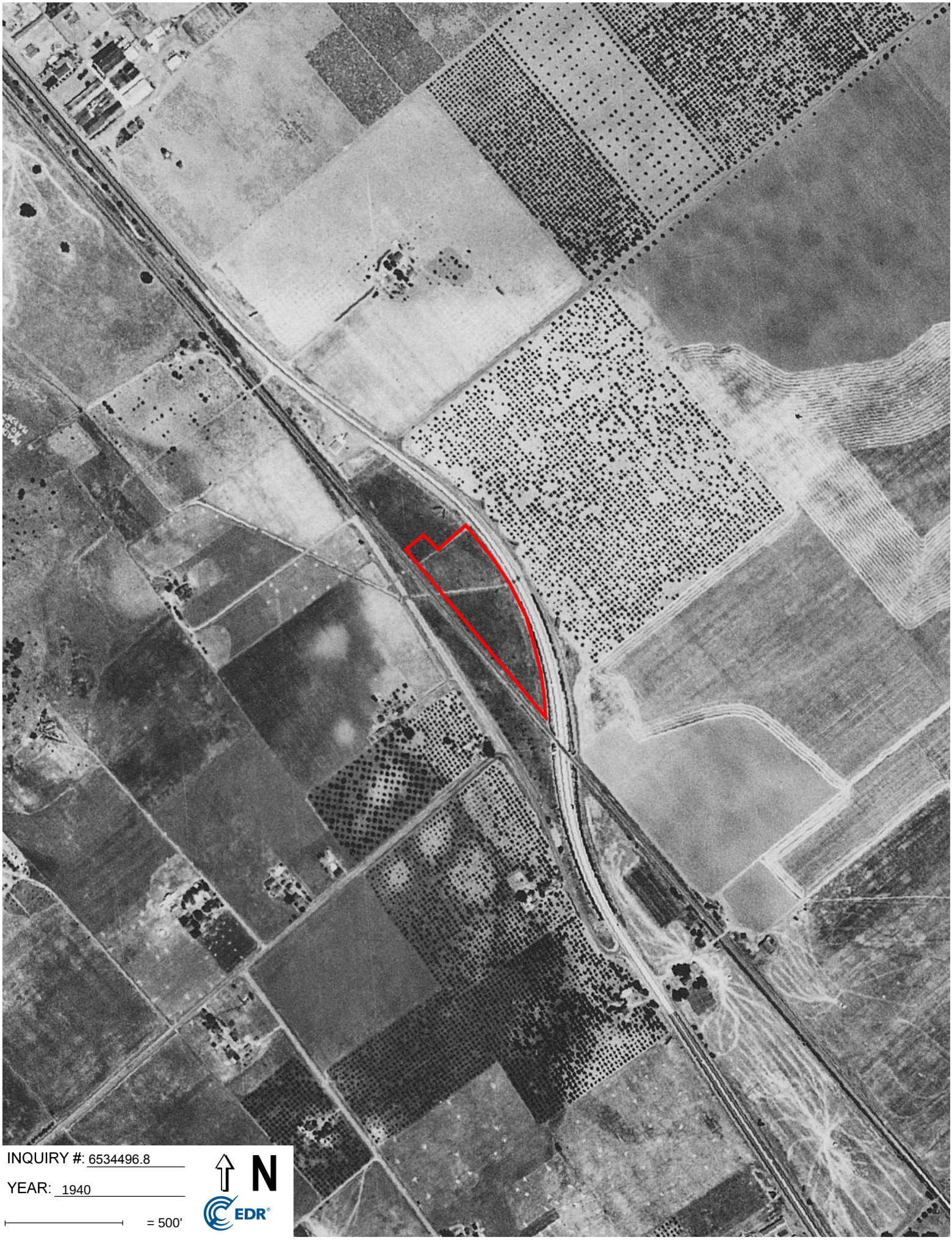
YEAR: 1950

= 500'

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EDR


INQUIRY #: 6534496.8
YEAR: 1948
= 500'
N
EDR



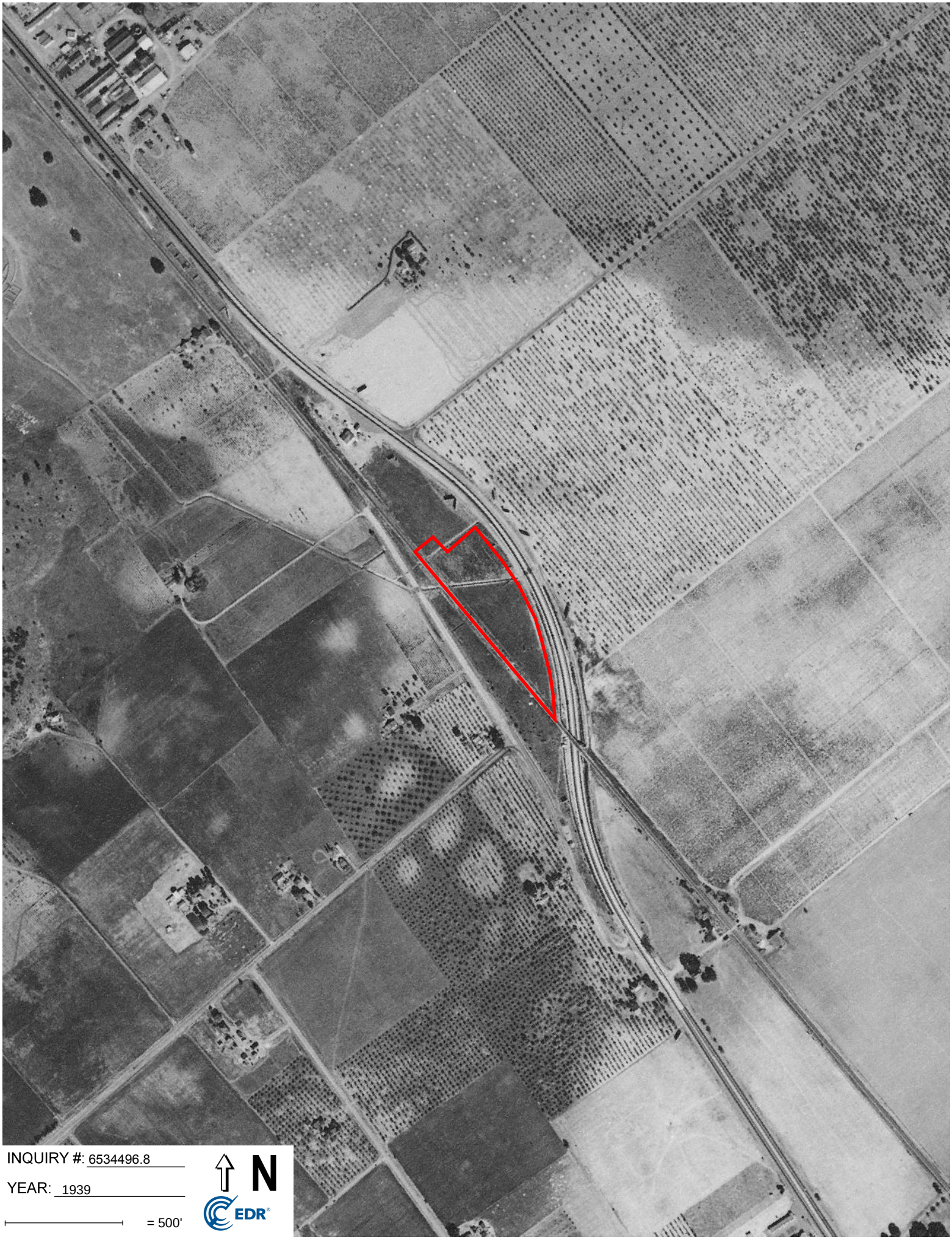
INQUIRY #: 6534496.8

YEAR: 1940

= 500'

N

EDR



INQUIRY #: 6534496.8

YEAR: 1939

= 500'

N

EDR

18545 Monterey Road
18545 Monterey Road
Morgan Hill, CA 95037

Inquiry Number: 6534496.5
June 16, 2021

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Findings

City Directory Images

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

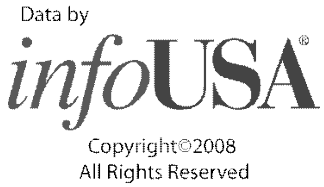
DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory 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
1985	☑	☐	Haines Criss-Cross Directory
1981	☑	☐	Haines Criss-Cross Directory
1976	☑	☐	Haines Criss-Cross Directory
1971	☑	☐	Haines Criss-Cross Directory
1967	☑	☐	Polk's City Directory
1964	☑	☐	Polk's City Directory

FINDINGS

TARGET PROPERTY STREET

18545 Monterey Road
Morgan Hill, CA 95037

Year	*CD Image*	*Source*

MONTEREY RD

1995	pg A25	EDR Digital Archive
1992	pg A27	EDR Digital Archive

MONTEREY ST

2017	pg A2	EDR Digital Archive
2014	pg A7	EDR Digital Archive
2010	pg A12	EDR Digital Archive
2005	pg A17	EDR Digital Archive
2000	pg A21	EDR Digital Archive
1985	pg A30	Haines Criss-Cross Directory
1981	pg A31	Haines Criss-Cross Directory
1976	pg A32	Haines Criss-Cross Directory
1976	pg A33	Haines Criss-Cross Directory
1971	pg A34	Haines Criss-Cross Directory
1967	pg A35	Polk's City Directory
1967	pg A36	Polk's City Directory
1964	pg A37	Polk's City Directory
1964	pg A38	Polk's City Directory
1964	pg A39	Polk's City Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2017

17680	FARMERS INSURANCE
	ROBERT LEMMON FARMERS
17698	DONUTS & THINGS
	FAMILY HAIR CARE
17710	JOHNSON, EDWIN P
17720	JOHNSON FUNERAL HOME
	LIMACAMPAGNAJOHNSON FUNERAL HOME
17760	BEAU ATTORNEY JACOB AT LAW
	HEALTHY CONCEPTS CREATIVE WEIGHT CON
	LAW OFFICE OF DONA KIRCHNER
	MB MAGNISI
	PAUCHON RESEARCH FOUNDATION
	TECHNOGRAPHICSPATENT TECHN
17765	CASA BLUE
	MAKIAGE
17770	ALLIED LANDSCAPE S
	ALLIED LANDSCAPE SERVICE
	BRADLEY A LEACH CPA
	PROSPECTORS PROPERTY MANAGEMENT
17775	LAW OFFICES OF BRUCE TICHININ
17780	MORGAN HILL PRESCHOOL ACADEMY
17810	SHADOW MOUNTAIN BAPTIST CHURCH
17835	CONGREGATION EMETH
17860	MORGAN HILL HISTORICAL SOCIETYMORGA
17865	BLOOD ALLEY TATTOO
	BOOST MOBILE
	JOES BARBERSHOP
	LA CHOZA MEAT MARKET
	LA CHOZA TAQUERIA
	LA SOLEDAD BAKERY 2
	STYLES HAIR SALON
	SUNLIGHT LAUNDROMAT INC
17875	OAK GLEN REALTY INC
17880	BARRIOS, MARIA
	BEAM, COURTNEY
	CABRERA, ED
	DULAY, JON
	FURDUTO, SIGNORA M
	GONZALEZ, PEDRO
	GUGLIUZZA, KAT
	JONATHANS, AMY
	KENNEDY, MARY E
	MARTINEZ, ANTHONY W
	NATHAN, G
	SNOW, SAMANTHA S
	TILMON, ARTHUR
17890	AKWETEY, STEPHEN
	BERTI, JOHN A
	FELDSINE, TIMOTHY R
	HORNE, JOE L

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2017 (Cont'd)

17890	HUSKINS, DORIS E
	KHAN, DONNA S
	LEWIS, CLERENCE
	MORGAN HILL APARTMENTS
	PADILLA, DAVID P
	PADILLA, KARLA D
	QUINN, PHILIP P
	RUIZ, MARICRUZ
	SILVA, VICTORIA
	TAYLOR, RYAN M
	TELLEZ, DELIA
17905	MORGAN HILL GAS & AUTO REPAIR
17915	AMESCUA, EARL J
	ROYAL COURT
17916	AGUILAR, SHEYLA
17920	PRONTO AUTO REPAIR
17935	ARIAS, CAMPOS A
	AVALOS, CHRISTOPHER G
	ESCUTIA, CARLOS
	FORSTNER, SCOTT J
17937	ALVAREZ, NORMA J
	ARENAS, ARTURO
	DOLIDA, RITA
	DOMINGUEZ, ANA
	GALLARDO, JOSE
	GONZALEZ, MARTHA
	NAVARRO, PEDRO V
	OROZCO, MARTA A
	SANCHEZ, CLAUDIA
	SANTOYU, MA N
	VALDOVINO, IRMA V
	WELSENREDER, LISA
17939	CORTEZ, LILIBETH S
	CORTEZ, MACARIO S
	MARTINEZ, ELIZABETH
	MONTENAYOR, CYNTHIA
	MORENO, MARIA D
	QUINTANA, MARIA
17941	ALBARRAN, FELIX
	ALCALDE, ROBERTO
	ARREOLALOPEZ, HECTOR
	CHAVEZ, SERAFIN
	ESTRADA, JOANNA A
	HERNANDEZ, LORETO M
	MONCADA, JOAQUIN G
	NUNGARAY, JOANNA
	SANDOVAL, LORENA
	VARGAS, MERCEDES
17945	A1 MUFFLER & BRAKE
	STAR MOTOR IMPORTS

MONTEREY ST 2017 (Cont'd)

17960	CENTRAL HIGH CONTINUATION SCHOOL
17975	ACEVEDO, MARTINEZ
	AGATEP, CLEDA A
	AGUILAR, GABRIEL
	ALTAMIRANO, CARLOS A
	ARENAS, EVA T
	BIONDI, MELISSA
	BRISENO, DOLORES
	CAMARILLO, EVA
	CIPREZ, ANGEL
	GARCIA, SERGIO A
	GATCH, KATIE E
	GLYNN, FRANCES L
	GOMEZ, MARIA E
	GRAJEDA, CATARINO
	GUTIERREZ, BLANCA
	HERNANDEZ, EVANGELINA
	HERNANDEZ, JUAN D
	HILL HAVEN MOBILE HOME PARK
	KINSEY, JOHN M
	MARQUEZ, DAVID
	MARQUEZ, OLIVIA
	MARTINEZ, ANTONIO C
	MEJIA, RAMIRO E
	MENDOZA, JOSE M
	MORENO, CELSO F
	MOTORCYCLE SAFETY TRAININ
	MUNOZ, ALFONSO J
	PALOMERA, MANUEL J
	PHAM, MINH T
	RESENDIZ, MARIA
	RODRIGUEZ, RAQUEL
	ROWLAND, CALI
	SMITH, JR
	URIBE, FRANSISCO R
	VELAZQUEZ, CAMILO
	YUNA, D
	ZUNIGA, OSCAR R
17995	HERTZ
	HERTZ CAR RENTAL
18025	SILICON VALLEY SELF STORAGE
	STORAGEMART
18055	ACACIA MOBILE HOME PARK
	BINETTE, BARBARA L
	CHANG, KENT L
	EPIGMENIO, ERASMO D
	EPIGMENIO, LAKHICHA
	GREISS, NANCY S
	GUZMAN, OMAR C
	HERNANDEZ, ALFREDO C

MONTEREY ST 2017 (Cont'd)

18055	HERNANDEZ, NUBIA
	KEEN, STEVEN S
	LANDEROS, JULIAN C
	LEMA, JESSE D
	MANCERA, JUAN
	MORRIS, DAVID R
	PARRA, CYNTHIA D
	PEREGRINA, JOY
	PRICE, TERESA
	PUTANO, RICHARD J
	RIOS, GLORIA
	SANDOVAL, EZEKIEL G
	SOLIS, ANA M
	SULLIVAN, PATRICK D
	TEJEDA, JUANA
	VANSCYOC, JON W
18498	PESTA, DEREK A
18502	OMRON, ELIAS I
18506	CHAU, CHRISTINE H
18514	PAREJA, HECTOR B
18518	PADILLA, JOSE D
18522	MACKINNON, JORDAN P
18526	FLORES, ADAM J
18530	COLLIS, KIMBERLY A
18534	MARTINEZ, TOMMY M
18538	MEDEIROS, ROBERTO S
18542	DELCARLO, LAURIE D
18546	KRISHNAMURTHY, SRIVIDYA
18585	ARTISTRY IN HAIR
	BRUSH BY MICHELE
	GATEWAY VI INVESTMENTS
	LANZAVECCHIA, VICKIE
	SOLA SALON STUDIOS
	STARBUCKS
	STARBUCKS COFFEE
18605	AMPM
	MORGAN HILL FUEL LP
18960	CALIFORNIA SALVAGE & AUTO PARTS
18970	BURKES UPHOLSTERY
	UHAUL
18980	MMS BEHAVIORAL DAY PROGRAM
19010	PERETTO, DANIEL W
19040	RANCHO MOTEL
19100	MADRONE BARBER SHOP
19120	AVAILABLE LOCKSMITH
	MADRONE FOOD MARKET
19190	COMMUNITY GARAGE
	COMMUNITY TOWING
19240	BUDGET INN
19250	SOLIDAY, CHARLES E

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2017 (Cont'd)

19260 STIBBARD, KEALA M
19280 HALLMARK EQUIPMENT INC
SUPERIOR AUTOMOTIVE & RADIATOR SERVI

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2014

17698	DONUTS & THINGS
	FAMILY HAIR CARE
17710	SMITH, SYLVIA
17720	DIGNITY
	JOHNSON FUNERAL HOME
	LIMA FAMILY ERICKSON MEMORIAL CHAPEL
17760	ALTERA REAL ESTATE
	EBITU LAW GROUP PC
	JACOB BEAU ATTORNEY AT LAW
	LAW OFFICE OF DONA KIRCHNER
	MOUSE MANIA CUTS
	PAUCHON RESEARCH FOUNDATION
	TECHNOGRAPHICSPATENT TECHN
	UNWAM LAW OFFICE
	WESTERN BANCORP
17765	CASA BLUE
17770	LEACH BRADLEY A CPA
	MELVILLE, GRAMHAM D
	PROSPECTORS PROPERTY MANAGEMENT
17775	LAW OFFICES OF BRUCE TICHININ
17780	MORGAN HILL PRESCHOOL ACADEMY
17810	SHADOW MOUNTAIN BAPTIST
17835	CONGREGATION EMETH
17860	MORGAN HILL HISTORICAL SOCIETYMORGA
17865	BLOOD ALLEY TATTOO
	BOOST MOBILE
	JOES BARBERSHOP
	LA CHOZA MEAT MARKET
	LA CHOZA TAQUERIA NO 2
	LA SOLEDAD BAKERY 2
	STYLES HAIR SALON
	SUNLIGHT LAUNDROMAT INC
17880	BARRIOS, MARIA
	BEAM, COURTNEY
	CABRERA, ED
	CAMPBELL, ARLINE J
	FELDSINE, TIMOTHY R
	FURDUTO, NORA M
	GOGSTEPPER, NATHAN E
	GONZALEZ, PEDRO
	HUERTA, DAVID
	HUSKINS, AMY
	IGLESIAS, LUCINA
	JONATHANS, JESSICA
	KENNEDY, MARY E
	MARTINEZ, ANTHONY W
	REILLY, MICHAEL E
	RENTERIA, VERONICA
	SNOW, SAMANTHA S
	STEARLY, RAYMOND

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2014 (Cont'd)

17880	TILMON, ARTHUR
17890	ANAYA, CLAUDIA
	HAYNES, KRISTJIANA
	HORNE, JOE L
	JONATHANS, ANGIE
	MARTINEZ, ERNEST
	MORADO, MICKEY
	MORGAN HILL APARTMENTS
	PADILLA, KARLA D
	PICARDEL, PHILBERT H
	RODRIGUEZ, KIM
	RUIZ, MARICRUZ
	SOTO, ROBERT
	STAMPS, PATRICIA
	TELLEZ, DELIA
17905	MORGAN HILL GAS & AUTO REPAIR
17915	ROYAL COURT
17916	AGUILAR, SHEYLA
17920	PRONTO AUTO REPAIR
17925	RIVERA, JOSE L
17935	AVALOS, CHRISTOPHER G
	CAMPOS, ADOLFO A
	FOWLKES, NINETTA K
17937	ALVAREZ, NORMA J
	ARENAS, ARTURO
	CASTILLO, JORGE A
	DOMINGUEZ, ANA
	GALLARDO, JOSE
	GARCIA, ROBERTO
	GONZALEZ, MARTHA
	MOZO, ALEJANDRO
	NAVARRO, SANTOYU M
	OLMOS, MIGUEL
	RICARDO, LEOBARDO G
	SANCHEZ, CLAUDIA
	SARINANA, FRANK J
	SOMERS, SUSAN E
	VALDOVINO, IRMA
17939	BAKER, LISA
	CORTEZ, MACARIO S
	CRISPIN, ALEJANDRO
	MONTENAYOR, CYNTHIA
	MORENO, MARIA
	PEREZ, ANABELLE
	URISTAMENDEZ, NOEMI
17941	ESTRADA, MIGUEL
	HERNANDEZ, LORETO M
	JARQUIN, FERNANDO
	JUAREZ, MARY
	LOPEZ, HECTOR A

MONTEREY ST 2014 (Cont'd)

17941 MONCADA, JOAQUIN G
SANDOVAL, LORENA
VARGAS, MERCEDES
17945 A1 MUFFLER & BRAKE
STAR MOTOR IMPORTS
17960 CENTRAL HIGH CONTINUATION SCHOOL
17975 AGATEP, CLEDA A
ALTAMIRANO, CARLOS A
ARENAS, EVA T
BRISENO, DOLORES
CABRAL, HEATHER M
CAMARILLO, EVA
CAPPS, DAN L
CIPREZ, ANGEL
DAVIS, D
ECK, DONNA L
FRANCO, MARIA R
GARCIA, SERGIO A
GATCH, KATIE E
GLYNN, FRANCES L
GOMEZ, RAMIRO
GUTIERREZ, BLANCA
HERNANDEZ, EVANGELINA
HILL HAVEN MOBILE HOME PARK
KINSEY, JOHN M
MARQUEZ, OLIVIA
MARTINEZ, ANTONIO C
MEJIA, RAMIRO E
MORENO, CELSO F
MOTORCYCLE SAFETY TRAININ
OLIVA, ARELY
PALOMERA, MANUEL J
PIELLI, SHANE D
ROWLAND, CALI
SANCHEZ, NORMA B
SANTIAGO, DOMINGO A
SMITH, JR
TALLEY, SHARON O
TAYLOR, TAMI
URENDA, JUANA
YUNA, D
ZUNIGA, OSCAR R
17995 ROCCIS AUTOBODY
18025 SILICON VALLEY SELF STORAGE
STORAGEMART
18055 ACACIA MOBILE HOME PARK
BINETTE, BARBARA L
CHANG, KENT L
EPIGMENIO, EMMANUEL
GREESON, MICHAEL

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2014 (Cont'd)

18055	GREISS, NANCY S
	GUZMAN, OMAR C
	HERNANDEZ, ALFREDO C
	HERRERA, ERNESTO
	JIMENEZ, BERENICE
	KEEN, STEVEN S
	LANDEROS, JULIAN C
	LEMA, JESSE D
	MARTINEZ, RICARDO P
	MIRELES, VINCENTE
	MORRIS, DAVID R
	PARRA, VICTOR M
	PEREGRINA, DENELLE
	PEREZ, OMAR A
	PUTANO, RICHARD J
	RUBIO, PATRICIA
	RUIZ, RODOLFO R
	SANDOVAL, EZEKIEL G
	SULLIVAN, PATRICK D
	URISTA, LORENZO R
	VANSCYOC, JON
18060	OCCUPANT UNKNOWN,
18105	OCCUPANT UNKNOWN,
18502	OCCUPANT UNKNOWN,
18506	OCCUPANT UNKNOWN,
18510	OCCUPANT UNKNOWN,
18514	OCCUPANT UNKNOWN,
18518	OCCUPANT UNKNOWN,
18522	OCCUPANT UNKNOWN,
18526	OCCUPANT UNKNOWN,
18530	OCCUPANT UNKNOWN,
18534	OCCUPANT UNKNOWN,
18538	OCCUPANT UNKNOWN,
18542	OCCUPANT UNKNOWN,
18546	OCCUPANT UNKNOWN,
18550	OCCUPANT UNKNOWN,
18585	ARTISTRY IN HAIR
	STARBUCKS COFFEE
	US HOME OWNERSHIP
18605	MORGAN HILL FUEL LP
18960	CALIFORNIA SALVAGE & AUTO PARTS
	CALIFORNIA TOWING COMPANY
18970	BURKES UPHOLSTERY
	UHAUL
18980	MMA BEHAVORIAL DAY PROGRAM
19010	TANIS, ERIC
19040	RANCHO MOTEL
19100	MADRONE BARBER SHOP
19120	AVAILABLE LOCKSMITH
	MADRONE FOOD MARKET

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2014 (Cont'd)

19190 COMMUNITY GARAGE
COMMUNITY TOWING
PONZINIS COMMUNITY GARAGE
19240 BUDGET INN
19250 SOLIDAY, CHARLES E
19260 STIBBARD, KEALA M
19280 HALLMARK EQUIPMENT INC
SUPERIOR AUTOMOTIVE
SUPERIOR AUTOMOTIVE & RADIATOR SERVI

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2010

17680	FARMERS INSURANCE GROUP
	OCHOA JOSE L INSURANCE SVC
17698	DONUTS & THINGS
	FAMILY HAIR CARE
17710	HOUSER, MARION L
17715	HMS PROPERTY MANAGEMENT
17720	JOHNSON FUNERAL HOME
17735	DARI DELITE DRIVEIN
17760	HAMILTON CHIROPRACTIC
	HEALTHY CONCEPTS CREATIVE
	JACOB BEAU
	JACOB BEAU ATTORNEY AT LAW
	JACOB, BEAU
	LIVE OAK REALTY
	MILLION DOLLAR MORTGAGE INC
	MOUSE MANIA CUTS
	SNYDER JILL P MD
	SNYDER, JILL P
	SUSAN FICK REALTOR
	VIOLA ANTHONY G DDS
	WINDOW COVERINGS BY BARBARA
17765	CASA BLUE
17770	PROSPECTORS PROPERTY MGMT
17775	BRUCE TICHININ LAW OFFICES
17780	MORGAN HILL PRESCHOOL ACADEMY
17810	SHADOW MOUNTAIN BAPTIST CHURCH
	TWIN FALLS REAL ESTATE
17835	CONGREGATION EMETHODIST
17860	MORGAN HILL HISTORICAL MUSEUM
17865	CHRISTY NAIL
	DELI PAN
	JOES BARBER SHOP
	LA CHOZA MEAT MARKET
	LA CHOZA TAQUERIA
	NORTHSIDE MARKET
	STYLES HAIR SALON
	SUNLIGHT LAUNDROMAT
17880	BARRIOS, MARIA
	CAMPBELL, ARLINE J
	CLARK, WELDON
	CORDOVA, RICKY
	DELACRUZ, GEORGE
	DOYLE, BRIAN T
	IGLESIAS, LUCINA
	JONATHANS, AMY
	MCCORMACK, NATASHA
	PRESENCION, MICHAEL
	REILLY, H E
	RENDON, COLUMBA
	ROBINS, JOANNA

MONTEREY ST 2010 (Cont'd)

17880 ROBLEDO, FRANCES
SAWYER, J
SNOW, CHERI A
17890 BIBIE, BEVERLY
CARRERO, RIGOBERTO
CASTILLO, ADOLFO
CHAVEZ, JOE
CRUZ, ROSEANNA S
DURHAM, LEOTA
FELDSINE, TIMOTHY R
GARZA, ERNESTO
HALEY, SHANNON L
HUSKINS, JEMES E
KHAN, DONNA S
KVITKY, ZEV
LEAHY, MARGARET
LOPEZ, LEO
MENDOZA, RITA
MESTAZ, SANDRA M
MORGAN HILL APARTMENTS
MORRIS, CRAIG
QUINONEZ, VICTORIA
REYES, RALPH
SILVA, LOUISE E
SNYDER, ANDREA
17905 MORGAN HILL GAS
TRUMAN AUTO CARE
17915 GARCIA, YORDGART
ROYAL COURT
SOUTH COUNTRY PROPERTY ROYAL
17916 LOPEZ, MARCO A
17920 ALFA RADIATOR
17925 RIVERA, JOSE L
17935 AVALOS, MARIA
FORSTNER, SCOTT J
HERNANDEZ, PETRA
KRONAWITTER, KURT
PEREZ, GARCIA R
17937 ALBARRAN, FELIX
ALVAREZ, NORMA J
ARENAS, ARTURO
GONZALEZ, MARTHA
GUZMAN, CLAUDIA
LOMELI, MARIA
MONCADA, CINDIA
SOMERS, SUE E
STEWART, BRIAUNA
VALDOVINO, IRMA
17939 CALVILLO, E
HERRERA, GUILLERMINA

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2010 (Cont'd)

17939	LAZCANO, IRMA
	MONTEMAYOR, CYNTHIA
17941	ARREOLA, LOPEZ H
	FLORES, HERNAN C
	HERNANDEZ, LORETO M
	JARQUIN, FERNANDO
	MONCADA, JOAQUIN G
	RESENDEZ, LAURI
	SANDOVAL, LORENA
17945	A1 MUFFLER & BRAKE
	NORTH CAL CUSTOMS
	STAR MOTOR IMPORTS
17960	CENTRAL HIGH SCHOOL
17975	AGATEP, CLEDA A
	ALTAMIRANO, CARLOS A
	ANDERSON, GARY H
	ARVIZU, GUADALUPE
	BASS, LEON L
	BRISENO, PEDRO
	CAMARILLO, EVA
	CAPPS, DAN L
	CASAS, ANTONIO
	COBARUBIAS, GENOVEVA
	GLYNN, FRANCES L
	GOMEZ, MANUEL
	GONZALEZ, MINERVA
	HERNANDEZ, JUAN D
	HERRERA, HONORATO Q
	HILL HAVEN MOBILE HOME PARK
	KINSEY, KIMBERLY B
	LOPEZ, ROBERTO P
	MARQUEZ, HECTOR L
	MEJIA, RAMIRO E
	MUNOZ, ALFONSO J
	OLSON, PHYLLIS J
	PALOMERA, JOSE M
	PEMBERTON, JACK A
	POLLEY, THOMAS
	RODRIGUEZ, RAQUEL
	SANCHEZ, KARINA
	TALLEY, JOHN R
	URENDA, JUANA
	URIBE, ANNA L
	VINTAGE HARDWOOD FLOORS
	WOLFSON, CELIA B
17980	CLARK, AMBER
	STEARLY, DEBBIE
17995	ROCCIS AUTOBODY
18005	SCYOC, JON V
18025	MIA BELLA PROPERTIES LLC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2010 (Cont'd)

18025 SECURITIES AMERICA INC
18055 ACACIA MOBILE HOME PARK
ALONZO, ALEX
BONGOLAN, CRISTINE H
CARRANZA, GERARDO G
EPIGMENIO, ERASMO D
EVERETT, ALFONSO
GREISS, NANCY G
GUZMAN, OMAR C
HERNANDEZ, ALBERTO V
HERNANDEZ, CINDY
HERRERA, FERNANDO P
HERRERA, RUBEN M
KEEN, STEVEN S
LEMA, JESSE
MARTINEZ, NUBIA
MIRELES, VICENTE G
MORGAN, GERALD L
PARRA, VICTOR M
PEREZ, OMAR A
PUTANO, RICHARD J
QUIRARTE, MANUEL H
RAMIREZ, RODOLFO R
SANTOS, STEVE P
SILVEIRA, ALVIN J
SULLIVAN, PATRICK D
TOVAR, DAVID
URISTA, LORENZO R
VIERA, NANETTE
ZAPIEN, FRANCISCO
18060 SUTTER, JOSEPH L
18105 PERRY, CAROLYN R
18502 OCCUPANT UNKNOWN,
18506 OCCUPANT UNKNOWN,
18510 OCCUPANT UNKNOWN,
18514 OCCUPANT UNKNOWN,
18518 OCCUPANT UNKNOWN,
18522 OCCUPANT UNKNOWN,
18526 OCCUPANT UNKNOWN,
18530 OCCUPANT UNKNOWN,
18534 OCCUPANT UNKNOWN,
18538 OCCUPANT UNKNOWN,
18542 OCCUPANT UNKNOWN,
18546 OCCUPANT UNKNOWN,
18550 OCCUPANT UNKNOWN,
18585 ARTISTRY IN HAIR
PREMIER PROPERTIESSILICON
STARBUCKS
18605 MORGAN HILL FUEL LP
18960 CALIFORNIA SALVAGE & AUTO PRTS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2010 (Cont'd)

18960 CALIFORNIA TOW & SALVAGE INC
18970 BURKES UPHOLSTERY
UHAUL CO
18980 MMS BEHAVIORAL DAY PROGRAM
19010 TANIS, ERIC
19040 RANCHO MOTEL
19080 MAGINCALDA, LEROY J
19100 MADRONE BARBER SHOP
19120 MADRONE FOOD MARKET
19140 ERNIES BAR & GRILL
19190 COMMUNITY TOWING
PONZINIS COMMUNITY GARAGE
19240 BUDGET INN
19250 SOLIDAY, CHARLES E
19280 HALLMARK EQUIPMENT INC
SUPERIOR AUTOMOTIVE & RADIATOR

Target Street	Cross Street	Source
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MONTEREY ST 2005

17680	EKSTROM INSURANCE AGENCY
	FARMERS INSURANCE GROUP OF CO
17698	KIM HAIR & NAIL
17710	HOUSER, CARL D
17735	DARI DELITE DRIVE IN
17760	ANTHONY G VIOLA DDS
	DEZIGN
	HEALTHY CONCEPTS
	HUCKABY INSURANCE
	LIVE OAK REALTY
	MOUSE MANIA CUTS
	SNYDER JILL P MD
	SNYDER, JILL P
17765	MAKIAGE
17770	LEACH BRADLEY A CPA
	LEBLEU, GISELE M
	MELVILLE, GRAMHAM
	PAUCHON, ALPHONSE
17775	TICHININ BRUCE ATTORNEY
17780	MORGAN HILL PRE SCHOOL ACADEMY
17795	SISTERSPRESENTATION
17825	ELAN GARDEN DESIGN
17835	SANTA MARIA RESTAURANT
17865	CARNISERIA, MONARCAS
	DISCOTECA, PEREZ
	LA CHOZA TAQUERIA NO 2
	LA ESPERANZA NATURAL PRODUCTS & GIFT
	LACHOZA, TAQUERIA
	NORTHSIDE MARKET
	REGALOS TOLUCA
	SUNLIGHT LAUNDROMAT
	THE HAPPY FISHERMAN
17880	ARAIZA, LUPE
	BARRIOS, MARIA
	BERLEY, ERNEST
	CABRERA, ALICIA J
	CALKINS, ALAN
	CANDELARIA, BENJAMIN
	CASTILLO, CANDELARIO
	DOZIER, MARYLIN C
	DUNCAN, C
	HUSKINS, GREGORY
	JONATHANS, AMY
	LOPEZ, SANDRO R
	LUMBARD, P
	MIRALES, ALFREDO
	MONTOUT, STEVENS
	PINEDA, MARIO
	PROKOP, SPARLA
	REILLY, H E

Target Street	Cross Street	Source
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MONTEREY ST 2005 (Cont'd)

17880	ROBLEDO, FRANCES
	SALAZAR, MICHAEL A
	SANCHEZ, GRACIE B
	SANDOVAL, RENEE T
	SOLER, MICHAEL
	VELASQUEZ, JACOB
	WILCOX, TAMMIE E
17890	ALTORRE, ANTHONY J
	BOYER, BRUCE E
	BUCHANAN, JOHN H
	CAMPBELL, BERNADETTE
	CASTILLO, ALBERTO
	DOBSON, CONNIE
	ESPINOZA, SANDRA
	FRYSINGER, CHRISTI
	FULLMER, MERLE
	HAINES, MICHAEL
	HANCOCK, DON
	HERNANDEZ, CELINE
	JACKSON, DONALD L
	LEAHY, MARGARET
	LOPEZ, LEO
	MARTINEZ, ESTEVAN
	MESTAZ, SANDRA M
	MESTAZ, TINA L
	MONCADA, JOAQUIN
	MORADO, MITKA
	MORGAN HILL APARTMENTS
	MORGAN HILL APARTMENTS & TRAILER PAR
	MORRIS, CRAIG
	MULIAGA, E
	MUN, C
	PADILLA, DAVID L
	QUINN, PHILIP P
	RINOLDI, JANICE M
	ROBLES, REYNA
	SANTIAGO, SONYA
	SGAMBATI, STEVE
	SMITH, CELINE
	STAGNARO, JAN
17905	MORGAN HILL SHELL
17915	GARCIA, YORDGART
17916	LOPEZ, MARCO A
17920	ALFA TOWING
17925	OCCUPANT UNKNOWN,
17935	FOWLKES, NINETTA
	HERNANDEZ, PETRA
	KRONAWITTER, KURT
	MALDONADO, GRACE R
17940	COMMUNITY ADULT SCHOOL

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2005 (Cont'd)

17945	ADVANCED WHEELS
	BUG PRO
	STAR MOTOR IMPORTS
17960	CENTRAL HIGH SCHOOL
17965	SKYLIGHT TRADING CO
17975	AGATEP, CLEDA A
	ALTAMIRANO, CARLOS A
	ANDERSON, GARY H
	ARVIZU, GUADALUPE
	BASS, LEON L
	BECERRA, JESSIE
	BRISENO, PEDRO
	BUSTAMANTE, RAMON B
	CAPPS, DAN L
	DICKEY, BRENDON
	ECK, DONNA L
	GALBRAITH, KIT
	GARCIA, SERGIO
	GATCH, RODNEY E
	GLYNN, NANCY L
	GOMEZ, MANUEL
	HERNANDEZ, JUAN D
	HILL, HAVEN
	KINSEY, KIMBERLY B
	LARA, MARIA D
	MENDOZA, JOSE M
	MORALES, ELIAS
	MUNOZ, TOMMY B
	OLSON, PHYLLIS S
	ORLANDO, JOSEPH
	PALOMERA, JOSE M
	RENDON, H
	RODRIGUEZ, RAQUEL
	ROWLAND, TERRY
	RUIZ, THERESA E
	SOLIS, POMPOSA R
	SOMERS, SUE
	URIBE, ANNA L
	VARGAS, FRANCISCO
	VILLAGE CATERERS INC
	WHITEHEAD, CHERYL L
18005	SCYOC, JON V
18025	CAMPS TRAVEL AND TOURS
	CREATIVE CAPITAL
	OVERLAND PLAZA & MINI STORAGE
	THE BATHROOM DR
18055	ALONZO, ALEX
	BEERS, BARBARA L
	BURNS, SCOTT
	CARRANZA, GERARDO G

MONTEREY ST 2005 (Cont'd)

18055	CHANG, KENT L
	EPIGMENIO, ERASMO
	GUZMAN, ANGELINA
	HERNANDEZ, ALBERTO
	HERRERA, MANUEL
	HP CONSTRUCTION
	HUGHER, JAMES L
	JONGERT, MASHEL
	KEEN, STEVEN S
	KNUTZEN, NANCY
	KRAKAR, AMY
	MAYA, MIGUEL
	MIRELES, KIMBERLY
	MORGAN, GERALD L
	MUDJAB, TONI
	OCHOA, OCTAVIO
	PARRA, VICTOR M
	PUTANO, RICHARD
	RAMIREZ, RODOLFO R
	SANDAVOL, GLEN
	SILVEIRA, ALVIN
	SPEISER, TONI
	SPORS, RONALD L
	URISTA, LORENZO
	VICTORINO, ABRAHAM I
	VIERA, NANETTE
	YOUNG, JERRY L
18060	SUTTER, JOSEPH L
18960	CALIFORNIA SALVAGE & AUTO PARTS
	CALIFORNIA TOWING CO
18970	U HAUL CO
18980	MMS BEHAVIORAL DAY PROGRAM
19010	TANIS, ERIC
19020	CLUB EL NOA
	CLUB EL NOA NOA
19040	RANCHO MOTEL
19080	MAGINCALDA, LEROY J
19100	MADRONE BARBER SHOP
19120	MADRONE LIQUOR & GROCERY MARKET
19140	ERNIES
19190	COMMUNITY TOWING
	PONZINIS
19250	SOLIDAY, CHARLES E
19260	A DELICATE TOUCH
	STIBBARD, KEALA
19280	GILROY RADIATOR & AUTO

Target Street	Cross Street	Source
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MONTEREY ST 2000

17680 PARISE, SUSAN L
17696 JIMENEZ, GABRIEL
17698 DIAZ, JUAN
DONUTS & THINGS
IMAGES BY MARIA
17710 HOUSER, CARL
17715 AEON INSURANCE GROUP INCORPORATED
HMS PROPERTY MANAGEMENT
17720 JOHNSON FUNERAL HOME
MOUNT HOPE CEMETERY
PACIFIC CREMATION PLAN
17735 DARI DELITE DRIVE IN
17755 DOSS GREG INS
FARMERS INSURANCE GROUP GREG DOSS
KAMEL, KENNETH
17760 CENTRE FOR LIVING WITH DYING
CREATIVE SPIRIT COACHING & CONSULTING
HEALTHY CONCEPTS CREATIVE WEIGHT CONTROL
HUCKABY INSURANCE
LIVE OAK REALTY
MILLER PATRICIA J DDS
MOUSE MANIA CUTS
OCCUPANT UNKNOWN,
SALES BOOKKEEPING SERVICES
SNYDER JILL P MD
VIOLA ANTHONY G DDS
ZYSK SHERRI PHD
17770 BOWMAN, BRUCE R
FINLEY MCNARY ENGINEERING
HATCHERS HOME & LAND COMPANY
LEACH BRADLEY A CPA
PROSPECTORS PROPERTY MANAGEMENT
17775 OCCUPANT UNKNOWN,
TICHININ BRUCE ATTORNEY
17780 MORGAN HILL PRE SCHOOL ACADEMY
17795 LEARNING & LOVING EDUCATION CENTER
17810 EL DORADO TECHNICAL SERVICE
ZAMORA, FRANK
17825 MOORE, LYDIA
T L & C REALTY
TERRY LEWIS REAL ESTATE
17835 GOOD FOOD COMPANY THE
THE GOOD FOOD COMPANY
THE PARTY PALACE
17860 MORGAN HILL HISTORICAL SOCIETY MORGAN HILL HOUSE
17865 CALIFORNIA SIGNS AND ADVERTISING
EL TORO MARKET
JOES BARBER SHOP
NORTHSIDE MARKET
OCCUPANT UNKNOWN,

MONTEREY ST 2000 (Cont'd)

17865 PRETTY NAIL
QUALITY SHOE REPAIR
R D S ENTERPRISES
17880 AYAIA, SYLVIA
DOYLE, BRIAN
EMERSON, DONALD P
HOUSTON, R
IBANEZ, MARIO
MOORE, LINDSEY R
MUNOZ-GOMEZ, PRIMITI
SHOLAN, KATHY L
WACHTLER, JEFFREY
17890 ALATORRE, ANTHONY J
ANTHONY, J A
DRAKE, JAMES T
GONZALEZ, JOSE L
JACKSON, D
KELLY, JOHN F
LOA, P
LUNA, JOE R
MCDANIEL, NANCY
MONCADA, JOAQUIN
MORGAN HILL APARTMENTS
PADILLA, DAVID
17905 MORGAN HILL SHELL
17910 DOMS CAFE
17916 MARTINEZ, ALICIA
17920 ALFA RADIATOR
ALPHA AUTOMOTIVE
MORGAN HILL AUTO WORKS
17925 OCCUPANT UNKNOWN,
17935 BERNAL, DANIEL
MARSHALL, LISA
17945 A 1 MUFFLER & BRAKE
ACOUSTECHS SOUND & COMMUNICATIONS
FRONTIER APPLIANCE
STAR MOTOR IMPORTS
17960 MORGAN HILL UNIFIED SCHOOL DIST CTRL HIGH SCHOOL
17975 AGATEP, CLEDA
ALTAMIRANO, MARY
BASS, ELMER L
BERNAL, ANGELLA
BRISENO, DOLORES
BRISENO, PEDRO
BUSTAMANTE, RAMON B
CAPPS, DAN L
FRYE, L M
GARCIA, MANUEL D
GATCH, RODNEY
GAXIOLA, PABLO

MONTEREY ST 2000 (Cont'd)

17975 GILLEN, VICTOR
GOMEZ, MANUEL
KINSEY, K
MENDOZA, CARMEN
MENDOZA, JOSE M
MERTZ, S L
MUNOZ, ALFONSO C
ROWLAND, TERRY
RUIZ, THERESA
TYUTEREVA, MARINA
URIBE, JAVIER
WHITLEY, M A
WOLFSON, CELIA
17995 ROCCIS AUTO BODY
18025 OVERLAND PLAZA SELF STORAGE
STANICH, DORA
18055 ACACIA MOBILE HOME PARK
ADAMS, MICHAEL
ALVAREZ, MARTIN C
BEERS, RAY W
BRAZZIL, GERALD
BURT, RUTH H
CARRANZA, GERARDO
DEGADILLO, PAUL D
DELGADILLO, PAUL F
EPIGMENIO, ERASMO
GARCIA, EVALINA
HAWKINS, JOY L
HERNANDEZ, FELIX
HERRERA, F
KEEN, STEVEN
LANDEROS, JULIAN
MIRELES, IGNACIO A
MONTOYA, WILLIAM
MORGAN, GERALD L
NUNEZ, MIGUEL
OMAR, GUZMAN
PETTY, PAULA J
PUTANO, RICHARD
RAMIREZ, RODOLFO
RUIZ, RODOLFO
SANDOVAL, E G
SCHANTIN, NICHOLE J
SILVEIRA, ALVIN
SPEISER, TONI
SPORS, RONALD
TOPETE, ELENA R
VICTORINO, S
18625 EL CAPRI RESTAURANT
18960 CALIFORNIA SALVAGE & AUTO PARTS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY ST 2000 (Cont'd)

18960	CALIFORNIA TOWING COMPANY
18970	BURKES UPHOLSTERY
	U-HAUL COMPANY INDEPENDENT DEALERS
18980	NOAHS ARK PRESCHOOL & DAY CARE
19020	RIVERAS CLUB
19040	RANCHO MOTEL
19100	ALS BARBER SHOP
19120	MADRONE FOOD MARKET
	MADRONE MEAT MARKET
19140	ERNIES BAR & GRILL
19190	COMMUNITY GARAGE
	COMMUNITY TOWING
	PONZINIS COMMUNITY GARAGE
19210	SINALOA CAFE
19240	BUDGET INN
19280	HALLMARK EQUIPMENT INCORPORATED

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY RD 1995

17698	DONUTS & THINGS
	FELICES TV
17715	ACTION REALTY
	CENT 21 VISTA DEL MONTE
	INDEPENDENT INSURANCE
17720	JOHNSON FUNERAL HOME
	MOUNT HOPE CEMETERY
	PACIFIC CREMATION PLAN
17760	ANTHONY G VIOLA DDS
	CRISIS PREGNANCY CTR
	DEZIGN
	JANE NEWBURY CPA
	LIVE OAK REALTY
	VIOLA & MILLER
17765	TRAVELERS INSURANCE
	VINTAGE FINANCIAL SVC
17770	HATCHERS HOME & LAND CO
	MORGAN HILL PHYSICAL THERAPY
	PROSPECTORS PROPERTY MGMT
17775	BRUCE TICHININ LAW OFFICES
17780	MORGAN HILL PRE SCHOOL
17795	PRUDENTIAL INSURANCE CO
	WHYUSA
17825	TERRY LEWIS REAL ESTATE
17865	BUSHWACKER
	COSMIC GENERAL STORE
	CULINARY EXPRESS
	DUCK PEN
	GAETANO CUSTOM TAILORING
	JUST FOR YOU CATERING
	PRETTY NAIL
	QUALITY SHOE REPAIR
	ROSES 4U
	SORCIS BARBER SHOPPE
17890	MORGAN HILL APARTMENTS
17895	AUTOMOTIVE LOCK & KEY
17905	MORGAN HILL SHELL
17910	DOMS CAFE
17920	ALFA RADIATOR SVC
17945	A 1 MUFFLER & BRAKE
	ACOUSTECHS SOUND & COMM
	FRONTIER APPLIANCE
	R CS LAWN MOWER SHOP
17965	BELL NURSERY & FLORIST
17995	K & A MARKET
	ROCCIS AUTOBODY
18025	OVERLAND PLAZA SELF STORAGE
18055	ACACIA MOBILE HOME PARK
18625	EL CAPRI
18960	CALIFORNIA SALVAGE & AUTO PRTS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY RD 1995 (Cont'd)

18960	CALIFORNIA TOWING CO
18970	BURKES UPHOLSTERY
	U HAUL CO
19040	RANCHO MOTEL
19100	ALS BARBER SHOP
19120	MADRONE FOOD MARKET
	MADRONE MEAT MARKET
19140	ERNIES BAR & GRILL
19190	COMMUNITY GARAGE
	COMMUNITY TOWING
19210	SINALOA CAFE
19240	ECHO MOTEL
19280	SOTELO BROTHERS FORKLIFT INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY RD 1992

17698	AMER ASC UNIV WOMEN
	CULINARY EXPRESS
	DONUTS&THINGS
17715	ACTION REALTY
	INDEP INSURANCE
17720	JOHNSON FUNERAL HM
17735	DARI DELITE DRIVEIN
17760	CRISIS PREGNANCY CT
	DEZIGN
	DIET CTR WEIGHT
	LIVE OAK REALTY
	NEWBURY JANE CPA
	STIGGE&STIGGE CPA
17765	TRAVELERS INSURANCE
	VIVENZI FNCL SERVS
17770	HATCHERS HOME&LAND
	MORGN HL PHYSICAL
	PROSPECTORS PRPRTY
17775	TICHININ BRUCE ATTY
17780	MORGN HL PRESC ACDM
17795	PRUDENTIAL INS THE
17810	M H U S D ACCNTS
	MORGN HL SC ADULT
17825	TERRY LEWIS RL EST
17835	GOOD FOOD CO THE
	THE GOOD FOOD CO
17865	BUSHWACKER THE
	CITIZENS AGNST RECL
	COSMIC GENERAL STR
	DEPOT DELI&DINING
	DUCK PEN THE
	GAETANO CSTM TLRNG
	HAIR STOP THE
	NORTHSIDE MARKET
	PRETTY NAIL
	QUALITY SHOE REPAIR
17875	C OF C
17880	CASTELLON, TERESA
	GIL, ROBERT
	IBANEZ, MARIA
	MARTIN, DOUGLAS L
	MARTINEZ, ROMANA
	MERONEY, LELAND
	MORGN HL APARTMENTS
	OBOZLO, OSELA
	SANTIAGO, DAVID
	VELASCO, COBIAN E
	WILSON, GRANT
17895	AUTOMTC LOCK&KEY
	SORCIS BARBER SHOPP

MONTEREY RD 1992 (Cont'd)

17905	MORGN HL SHELL
17910	DOMS CAFE
17916	MARTINEZ, ALICIA
17920	ALFA RADIATOR
17925	ORTIZ, MANUEL
17945	A 1 MUFFLER&BRAKE
	ACOUSTECHS SOUND
	COOKS UPHOLSTERY
	E M F MTRCYCLE PRTS
	FRONTIER APPLIANCE
	R CS LAWN MOWER SHP
	TCHAMOURIAN, TONY
17960	MORGN HL SC CENTRAL
17965	BELL NURSERY
17975	ACCORNERO, L
	AGATEP, CLEDA JR
	ALTAMIRANO, MARY
	CASTANEDA, MARTHA
	CHAPARRO, CARMEN
	COLLINS, N
	DAMRON, C D
	ECK, A T
	FRYE, L M
	GARCIA, RAMON B
	GAXIOLA, LUIS
	GOMEZ, MANUEL
	LEPRE, STEVE
	OLSON, KENNETH E
	RUIZ, TERESA E
	SONDOSSI, M
	URIBE, ANNA L
17995	K&A MARKET
	ROCCIS BODY SHOP
18025	OVERLAND PLAZA STRG
18055	ACACIA MOBILE HM PK
	AVALOS, A
	BEERS, R
18455	S G MAYNE TERMITE
18625	EL CAPRI
18960	CA SALVAGE&AUTO PRT
	CA TOW COMPANY
18970	BURKES UPHOLSTERY
19020	GUYS HIGHWAY TAVERN
19040	RANCHO MOTEL
19100	ALS BARBER SHOP
19120	MADRONE FOOD MARKET
19140	ERNIES BAR&GRILL
19190	CA ST AUTOMOBILE
	PONZINIS CMNTY GAR
19210	SINALOA CAFE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MONTEREY RD 1992 (Cont'd)

19240 ECHO MOTEL
19280 SOTELO BROS FORKLFT

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

MONTEREY ST 1985

	WAYNES SERVICE CNTR	779-2770	8
18055	ACACIA MOBILE HM PK		
	BEAONELL JAS K	779-0142	+5
	BURT R H	779-5074	+5
	CLINE BRUCE	779-3817	4
	CLINE MARIAN	779-3817	
	ERL MIKE	778-2848	+5
	ERL PATRICIA	778-2848	+5
	FEATHERSTON D	779-4189	4
	FEATHERSTON J	779-4189	
	GALLARDO RAFAELA	779-4473	4
	GALLARDO RAMIRO	779-4473	
	HADJIMOHAMMADI M	779-4630	+5
	HADJIMOHAMMADI NEVA	779-4630	+5
	MARINAS FELIX	778-3187	+5
	MARINAS ROSEMARY	778-3187	+5
	MIRELES KIMBERLY	779-2095	4
	PAXTON ELWYN C	779-0862	+5
	SILVEIRA ALVIN JR	778-0578	+5
	SPORS RONALD	778-0271	4
	THOMPSON D	779-4975	+5
	VOKHUONG DONNA	778-3996	+5
	VOKHUONG TUNG	778-3996	+5
18055			
18060	SUTTER JOS	779-3646	
18105	VIOLA PASQUALE F	779-3832	
18110	SUTTER FRANK	779-2070	
18225	LLAGAS CORNERS	779-1833	+5
18300	MORGN HL CTY FIRE	779-7231	1
18375	CORRAL ANTONE	779-0214	0
18625	CAPRI RESTAURANT	779-3567	8
18645	ARZAGA JOSE E	779-9423	
18720	LEONARD ARNOLD	779-9066	
18920	GOMES MANUEL M	779-3068	
18930	AMARAL C	779-6037	4
	AVILA JOSE	778-3908	+5
	INGERSON LARRY	779-9690	+5
	INGERSON TRUDY	779-9690	+5
18960	CA SALVAGE&AUTO PRT	779-9186	1
	CA SALVG&ATO PTS YD	227-6633	1
18980	RAMSEY GROUP THE	578-8060	+5
	SILACCI ENTERPRISES	779-8428	+5
	SILACCI GARY	779-8428	+5
19000	XXXX	00	
19020	PEDRIZZETTI FAM WIN	778-7774	9
19040	MINEO J	779-2368	
19080	MAGINCALDA ERNEST	779-3217	

VER EXCEPT AS AUTHORIZED IN WRITING BY HAINES

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

MONTEREY ST 1981

	ROCCIS BDDY SHDP	779-9090	5
	WAYNES SERVICE GNTR	779-277D	8
18005	STDRAGE YARD THE	779-1600	9
18040	XXXX	00	
18055	APARTMENTS		
	CERVANTES DAVID	778-3829	+1
	CORRAL MARGAITO	778-1387	+1
	GUILLEN RAMON	779-7647	0
	LOPEZ WILLIE	778-2564	+1
	MARTINEZ RUPERTO	779-5134	+1
	SUBWAY SERVIGE	779-9237	4
18055			
18060	SUTTER JOS	779-3646	
18105	VIOLA PASQUALE F	779-3822	
18110	PEREIRA JOAQUIN	779-4915	0
	SUTTER FRANK	779-2070	
18195	XXXX	00	
18225	XXXX	00	
18300	MORGN HL CTY FIRE	779-7231	+1
18305	XXXX	00	
18375	CORRAL ANTONE	779-0214	0
18455	STUCKY LEO	779-1639	0
18515	XXXX	00	
18625	CAPRI RESTAURANT	779-3567	8
18645	ARZAGA JOSE E	779-9423	
18665	FARNSWORTH REX E	779-2845	7
	FARNWORTH TRMT CTRL	268-6655	5
	FARNWRTH TRMT CNTRL	778-7D50	5
18720	LEONARD ARNOLD	779-9066	
18920	GOMES MANUEL M	779-3068	
18930	XXXX	00	
18960	GA MAGHINE SHDP	779-D671	+1
	CA MACHINE SHOP	629-9899	+1
	CA SALVAGE&AUTD PRT	778-B1B6	+1
	CA SALVG&ATO PTS YD	227-6633	+1
18980	XXXX	00	
19000	FARMERS DUTLET	779-9824	5
19010	VILLARRUEL RAMON	779-7945	6
19C20	PEDRIZZETTI FAM WIN	779-7774	9
19040	MINEO J	779-2368	
19080	MAGINCALDA ERNEST	779-3217	
19100	ALS BARBER SHDP	779-3331	
19120	MADRONE FDDD MKT	779-3414	
19140	ERNIES GOOK STKHSE	779-4087	5
19190	GA ST AUTO ASSN	779-3833	+1
	CDMMUNITY GARAGE	779-3833	7

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

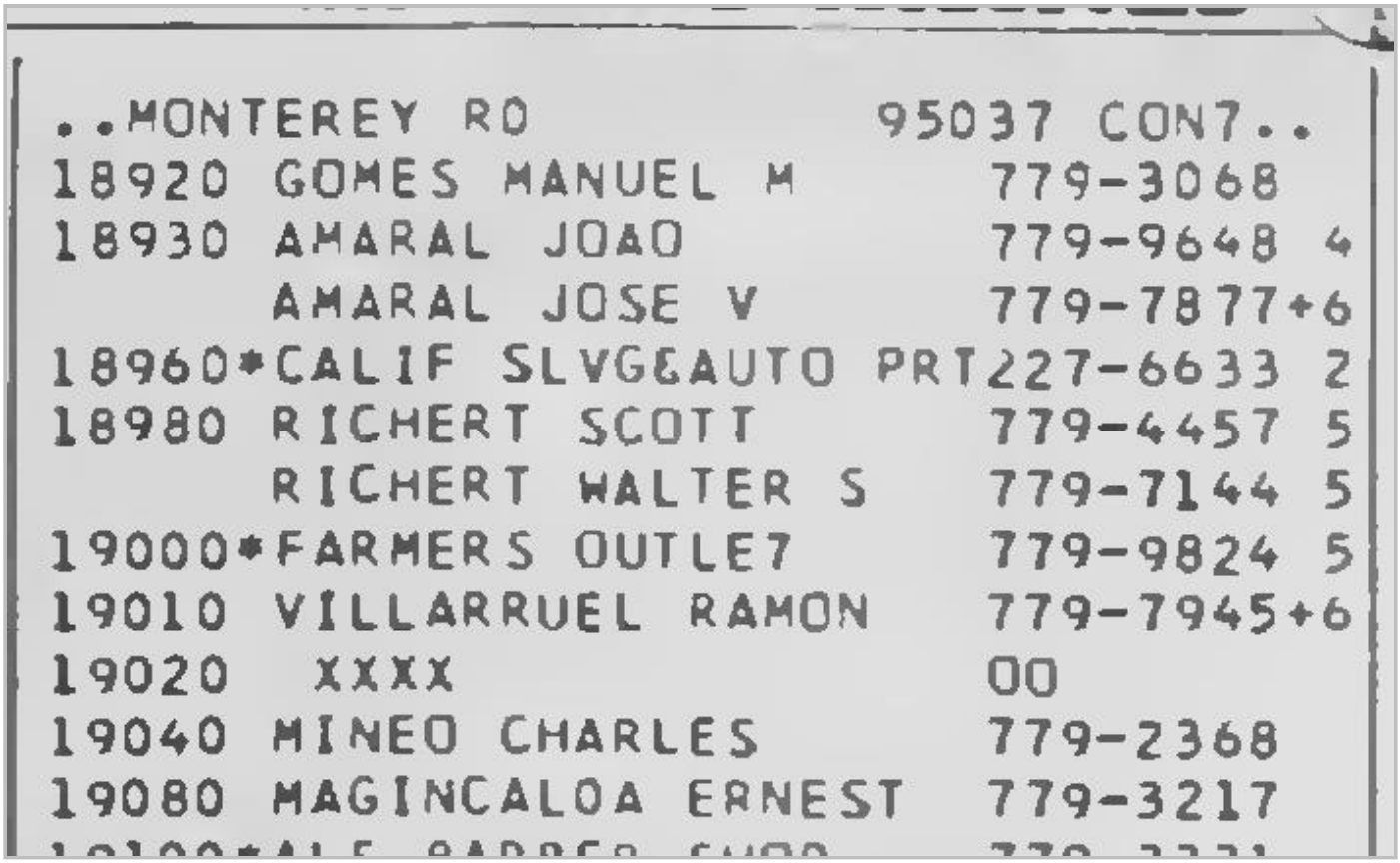
MONTEREY ST 1976

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*ELTORO MOTORS                779-9188 4
     *JACKSON OAKS REALTY     779-4146+6
     *ROCCIS AUTO BODY        779-9090 5
18005*STORAGE YARD            779-8121+6
18040  XXXX                   OO
18055...APARTMENTS
       ALTAMIRANO PEARL       779-4978+6
       CAMACHO MARY           779-4762+6
       CUMMINGS W CLAIRE      779-4333 5
       DAFFERN ATHIE          779-5752 4
       FORBES HENRY JR        779-9652 5
       FORBES PENNY           779-9018 4
       FORO ALFREO GLEN       779-7867+6
       HEATER R A             779-7192+6
       HOWE ROBERT O          779-2776 2
       LOPEZ MICHAEL M        779-5550 5
       ORLANOO A M            779-9387+6
       PRUETT HOBART          779-2664+6
       REECE ROBERT C         779-5944+6
       SNEOOEN KENNETH        779-4475+6
     *SUBWAY SERVICE          779-9237 4
       WILEY LEON J           779-7616+6
18055.........................
18060 SUTTER JOS              779-3646
18105 VIOLA PASQUALE F        779-3832
18110 SUTTER FRANK            779-2070
    8 PEREIRA JOAGUIN         779-4915
18195 OINZILLO ART            779-3394 2
18225*POPMA ROY               779-3395
18305  XXXX                   OO
18375 LINOSAY JOHN N JR       779-9607
18455 MOON N O                779-2060
18515  XXXX                   OO
18625*CAPRI RESTAURANT        779-3567+6
18645 ARZAGA JOSE E           779-9423
18665*FARNWORTH TRMT CTRL      268-6655 5
     *FARNWRTH TRMT CNTRL     779-7050 5
18720 LEONARO ARNOLO          779-9066
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Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

MONTEREY ST 1976

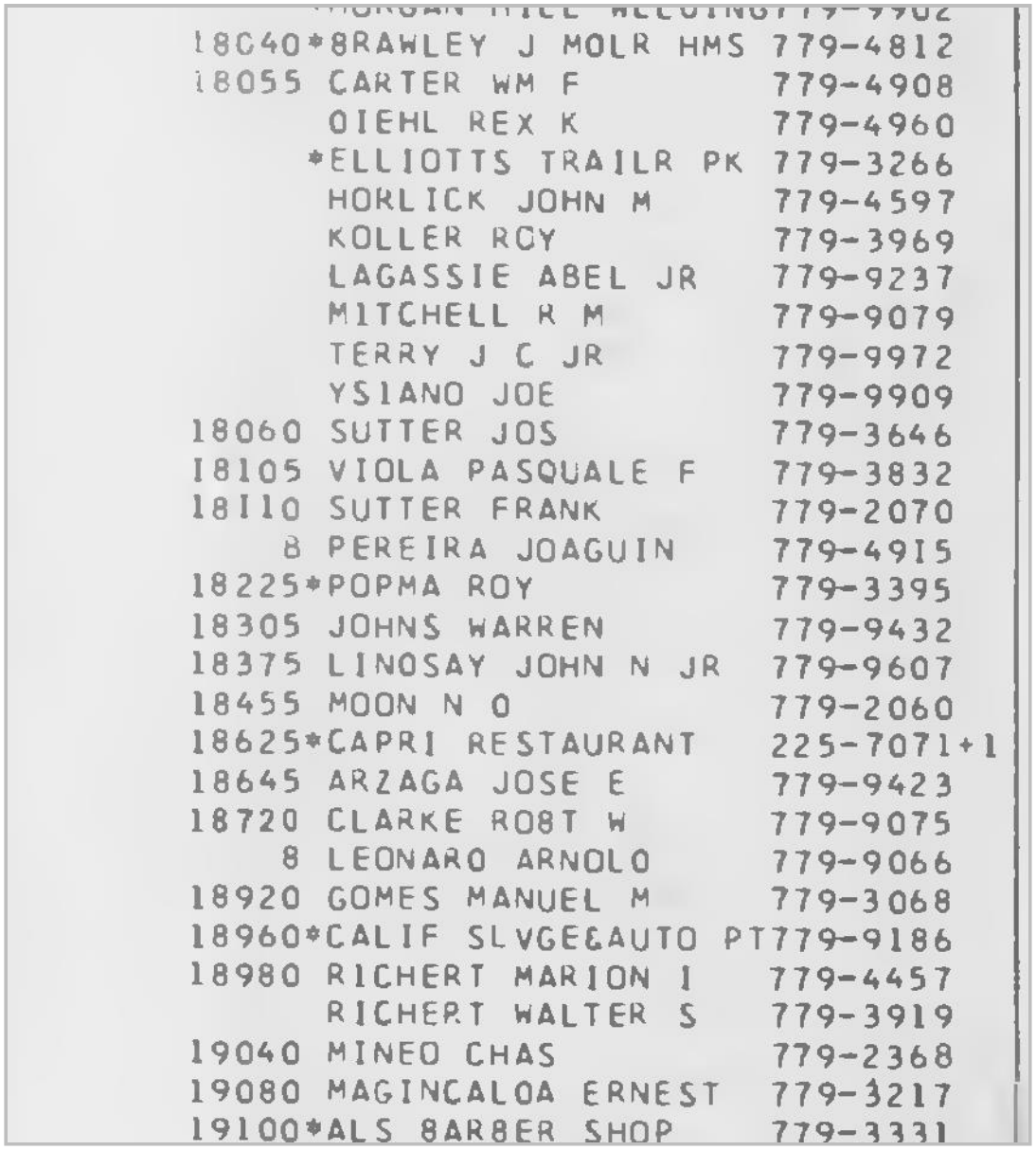


..MONTEREY RD 95037 CONT..

18920	GOMES MANUEL M	779-3068	
18930	AMARAL JOAO	779-9648	4
	AMARAL JOSE V	779-7877	+6
18960	*CALIF SLVG&AUTO PRT	227-6633	2
18980	RICHERT SCOTT	779-4457	5
	RICHERT WALTER S	779-7144	5
19000	*FARMERS OUTLET	779-9824	5
19010	VILLARRUEL RAMON	779-7945	+6
19020	XXXX	00	
19040	MINEO CHARLES	779-2368	
19080	MAGINCALOA ERNEST	779-3217	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

MONTEREY ST 1971



18040	*BRAWLEY J MOLR HMS	779-4812
18055	CARTER WM F	779-4908
	OIEHL REX K	779-4960
	*ELLIOTTS TRAILR PK	779-3266
	HORLICK JOHN M	779-4597
	KOLLER ROY	779-3969
	LAGASSIE ABEL JR	779-9237
	MITCHELL R M	779-9079
	TERRY J C JR	779-9972
	YSIANO JOE	779-9909
18060	SUTTER JOS	779-3646
18105	VIOLA PASQUALE F	779-3832
18110	SUTTER FRANK	779-2070
8	PEREIRA JOAQUIN	779-4915
18225	*POPMA ROY	779-3395
18305	JOHNS WARREN	779-9432
18375	LINDSAY JOHN N JR	779-9607
18455	MOON N O	779-2060
18625	*CAPRI RESTAURANT	225-7071+1
18645	ARZAGA JOSE E	779-9423
18720	CLARKE ROBT W	779-9075
8	LEONARD ARNOLD	779-9066
18920	GOMES MANUEL M	779-3068
18960	*CALIF SLVGE&AUTO PT	779-9186
18980	RICHERT MARION I	779-4457
	RICHERT WALTER S	779-3919
19040	MINEO CHAS	779-2368
19080	MAGINCALDA ERNEST	779-3217
19100	*ALS BARBER SHOP	779-3331

Target Street	Cross Street	Source
✓	-	Polk's City Directory

MONTEREY ST 1967

MONTEREY N (Morgan Hill)
— From Main av north

1 Bank of Am 779-2146
10 Galatoire's Texaco Serv gas sta 779-9810
20 Sara's Orange Freeze ice cream
43 White Way Freeze ice cream 779-9794
50 Gunter Bros feed dlr 779-3136
83 Dicks Richfield Serv gas sta 779-2770

Keystone intersects

100 Gong's Mkt gro 779-2005
150 **Morgan Hill Clinic** 779-2141
Morgan Hill Clinical Laby 779-2141
Spencer Gordon A phys
150a Vacant
164 Spencer Anna B Mrs 779-9550
172 Vacant
186 No return
198 Hoch Joyce M Mrs

E Central av intersects

202 Johnson Edwin P © 779-3463
211 Patio Freeze ice cream 779-3424
230 Johnson Funeral Home 779-3225
Johnson Edwin P jr © 779-3000
237 Tabb Edythe A Mrs © 779-2707
249 Bustillos Joe © 779-2605
250 Vacant
261 Vacant
290 Mildred Antique Shop 779-9919
deYoung Mildred ©
295 Morgan Hill Union Serv gas sta 779-9729

El Toro intersects

325 Argue Donald Rev 779-2925
329 Full Gospel Church
350 Old Homestead Antiques 779-3798
Walgren Paul D ©
355 Zola's Beauty Shop 779-9912
367 Marie's Fine Food restr 779-9050
Spence Motel 779-3828
Johnson Robt F ©
376 Morgan Hill Motel & Trailer Court 779-3264
Creath Don P ©
395 Akino Hancock Serv gas sta 779-9744

Wright av intersects

400 Berlier Roy © 779-3590
402 Millie's Cafe restr 79-47125
Kutz Ray ©
408 Vacant
410 Pioneer Pump & Well Co repr 779-9610

Target Street	Cross Street	Source
✓	-	Polk's City Directory

MONTEREY ST 1967

Monterey N (MH)—Contd
415 Vieira Shell Serv gas sta 779-3838
441 Leimas Anthony J real est 779-2400
Leimas Henry C
455 Royal Motel 779-9764
Martinos Bob ©
465 Morgan Hill Auto Serv 779-2131
465a Live Oak Area Serv Center 779-9176
465b Vacant
465c Nob Hill Heating Sht Mtl Inc 779-9312
495 Hill Haven Trailer Park 779-3667
George Frank ©
495a Western Land Co 779-9246
551 Candy Lane Mtrs 779-9166
Gipson Ivan Realtor
595 Subway Motel 779-3266
Subway Serv gas sta 779-9715
Elliott Richd O ©

Cochran rd intersects
se cor San Jose Trap & Ski Club
630 Sutter Frank 779-2070
985 Getz Fruit Mkt 779-9922
995 Capri The restr 779-3567
1080a Bettencourt Manuel 779-9243
1080b Silveira John
1090 Gomes Manuel J jr 779-3068
1100 Vacant
1110 Vacant
1130 Alario's Rancho Restr 779-9747
1140 Mineo Chas © 779-2368
1150 Maginealdo Ernest E
1160 Al's Barber Shop 779-3331
1170 Madrone Food Mkt gro 779-3414
1180 Ernie's Bar & Cafe tavern 779-2030
1190 Community Garage auto repr 779-9717

Pebbles av intersects
1210 Sinaloa Cafe 779-9740
1220 Vacant
1220½ Vacant
1230 Echo Motel 779-3834
Anderson Howard B ©
1240 Osgood Cassius 779-2498
1240a Griffin Brice
1250 Joe's Gun Clinic 779-3612
Joaquin Jos J
1260 Sanchez Auto Sls used cars 779-2866
1280 Sanchez Auto Sales 779-2866
1350 Ronald Jack W autos 779-2166
1380 Vacant
1390 Shellworth Tom Chevrolet auto dlr 779-2136
1410 Sound Art Show Room

Burnett av intersects

Target Street	Cross Street	Source
✓	-	Polk's City Directory

MONTEREY ST 1964

MONTEREY N (Morgan Hill) —
From Main av north

1 Bank of Am 779-2146
10 Galatoire's Texaco Serv gas sta 779-9810
20 Lloyd's Orange Freeze ice cream
43 White Way Freeze ice cream 779-9794
50 Gunter Bros feed dlr 779-3136
83 Green's Richfield Serv gas sta
Keystone intersects

Target Street	Cross Street	Source
✓	-	Polk's City Directory

MONTEREY ST 1964

MONTEREY N (Morgan Hill)—
Contd
100 Gong's Mkt gro 779-2005
150 **Morgan Hill Clinic 779-2141**
Morgan Hill Clinical Laby 779-2141
Spencer Gordon A phys
150a Doan Doris Mrs 779-9916
164 Sullivan Jas P
172 Skeels Myrle N Mrs ⓞ 779-3564
186 No return
198 Hoch Joyce M Mrs
E Central av intersects
202 Johnson Edwin P ⓞ 779-6463
207 Willard Don L bldg contr 779-9374
211 Patio Freeze ice cream 779-3424
230 Johnson Funeral Home 779-3225
Johnson Edwin P jr
237 Tabb Edythe A Mrs ⓞ 779-2707
249 Smith Emmett W 779-9598
250 Vacant
261 Ahakuelo Raphael J 779-2643
290 Mildred Antique Shop 779-9919
deYoung Mildred ⓞ
295 Morgan Hill Union Serv gas sta 779-9729
El Toro intersects
325 Fairrington Douglas M Rev 779-2925
329 Full Gospel Church
350 Old Homestead Antiques 779-3798
Walgren Paul D ⓞ
355 Zola's Beauty Shop 779-9912
367 Dubie's Coffee Shop 779-9829
Spence Motel 779-3828
Johnson Robt ⓞ
376 Morgan Hill Motel & Trailer Court 779-3264
Sherburn Maurice ⓞ
395 Danny's Beacon Serv 779-9744
Wright av intersects
400 Berlier Roy ⓞ 779-3590
402 Cliff's Cafe 779-4125
Harris David B ⓞ
408 Vacant
410 Pioneer Pump & Well Co repr 779-9610
415 Absher's Shell Serv gas sta
441 Leimas Anthony J real est 779-2400
Leimas Henry C
441a No return
455 Royal Motel 779-2464
Martinos Bob ⓞ
495 Hill Haven Trailer Park 779-3667
George Frank ⓞ
495a Keith Realty Co 779-3773
Burne Al 779-3773
551 Amber Mtrs auto dlrs 779-9013
595 Subway Motel 779-3266
Subway Serv gas sta 779-9715
Elliott Richd O ⓞ
Cochran rd intersects
se cor San Jose Trap & Ski Club
630 Sutter Frank 779-2070
985 Getz Fruit Mkt 779-9922
995 Capri The restr 779-3567

Target Street	Cross Street	Source
✓	-	Polk's City Directory

MONTEREY ST 1964

1080a DeRosa Silvero 779-9243
1080b-c Vacant
1090 Gomes Manuel J jr 779-3068
1100 Church of God of Prophecy The
1110 Cal Salvage Co auto wreckers
Caster Albert
1130 Alario's Rancho Restr 779-9747
1140 Rancho Motel 779-2368
Bozner Carl ©
1150 Maginealdo Ernest E
1160 Al's Barber Shop 779-3331
1170 Madrone Food Mkt gro 779-3414
1180 Ernie's Bar & Cafe tavern 779-2030
1190 Community Garage auto repr 779-9717
Pebbles av intersects
1210 Sinaloa Cafe 779-9740
1220 Jimenez Guadalupe Mrs 779-9593
1220½ Gallardo Ivy
1230 Echo Motel 779-3834
Anderson Howard B ©
1240 Raggio Tina Mrs © 779-3097
1240a Griffin Brice
1250 Joe's Gun Clinic 779-3612
Joaquin Jos J
1260 Vacant
1350 Nordstrom Gus H
1380 Boyle Bill Ford auto dlr 779-2171
1390 Shellworth Tom Chevrolet auto dlr 779-2136
1410 Sound Art Show Room
Burnett av intersects

Appendix F AGENCY RECORDS

CITY OF MORGAN HILL No. MUNI 100050

NOTICE OF MUNICIPAL CODE VIOLATION

DATE OF VIOLATION (or Date Violation Identified)		
2/4/2020		
NAME: Last	First	Middle
Trinh	Oanh	Nguyen
ADDRESS		
1717 Messina Dr.		
CITY	STATE	ZIP
San Jose	CA	95132
TELEPHONE NUMBER		

LOCATION OF VIOLATION:		
ADDRESS		
18545 Monterey Rd		
CITY	STATE	ZIP
Morgan Hill	CA	95037

For each violation, fines shall be assessed as follows:

- ☐ First Violation $ 100
- ☒ Second Violation $ 200
- ☐ Third Violation $ 500

TOTAL FINE

$200.00

VIOLATION(S):	DESCRIPTION OF VIOLATION(S)
2018 Intl Prop Maint. Code Section 301.3	Vacant land to be maintained in a clean and sanitary condition

I certify that the foregoing is true and correct as of the date shown below:

Printed Name of Issuer	Signature		
John Arras			
Date Issued	Time Issued	Case Number	Telephone Number
2/4/2020	3:45pm	Prop 2019-0096	408 310-4628

Make check payable to : CITY OF MORGAN HILL

Mail payment to:

CITY OF MORGAN HILL
FINANCE DEPARTMENT
17575 Peak Avenue
Morgan Hill, CA 95037

SEE REVERSE SIDE FOR IMPORTANT INFORMATION

ENCLOSED WITH YOUR PAYMENT

CITY OF MORGAN HILL

17575 Peak Avenue
Morgan Hill, CA 95037-4128
Tel: 408-778-6480
Fax: 408-779-7236
www.morganhill.ca.gov

January 9, 2020

Oanh Nguyen Trinh and Nhat Huu Hoang
1717 Messina Drive
San Jose, CA. 95132

SUBJECT: **SECOND NOTICE OF VIOLATION**
Address: 18545 Monterey Rd
APN# 764-10-013

Dear Property Owner:

The City has received multiple complaints regarding the condition of your property. The complaint is that there are multiple homeless people living on your property. You have been notified several times to clean up the property. Please note that you are still in violation of the following code.

Code

2018 International Property Maintenance Code
Section 301 – General
301.3 Vacant structures and land – All vacant structures and premises thereof or vacant land shall be maintained in a clean, safe, secure, and sanitary condition as provided herein so as not to cause a blighting problem or adversely affect the public health or safety.

Actions for Compliance

1. Please clean up any trash and debris on your property. If you need assistance with removal of trespassers, please contact Morgan Hill Police Department at 408-779-2101.

You are hereby requested to complete the actions for **compliance by January 27, 2020.** Failure to comply will result in the issuance of a citation or other legal action.

Your cooperation in this matter is essential. Should you require further information regarding our code requirements or would like to discuss this issue, please call me at 408-310-4628.

Sincerely,

John Amos
Code Enforcement Officer

CITY OF MORGAN HILL

Development Services Center
Building Division
17575 Peak Ave
Morgan Hill, CA 95037-4128
Phone: (408)778-6480
Fax: (408)779-7236
www.morganhill.ca.gov

Courtesy Notice of Violation

Name: Oanh Nguyen Trinh Et Al and Nhat Huu Hoang

Mailing Address: 1717 Messina Drive

City: San Jose **State:** CA **Zip:** 95132

Address of Violation: 18545 Monterey Rd (APN# 764-10-013)

The following violation(s) exists on your property and requires your immediate attention:

☐ **5.04.110 – Business License Required.** It is unlawful for any person to commence or carry on any business in the city, without first having procured a license from the city so to do, or without complying with this chapter.

☒ **8.16.040 – Litter**. Property shall remain free of litter.

☐ **8.20.020 – Weeds.** It is the responsibility of every homeowner to remove or destroy weeds.

☒ **9.15.020(B) – Vacant Building or Property.** The exterior of any vacant or unoccupied building, or any fence, wall, or vegetation located on vacant or unoccupied premises or the interior of any vacant or unoccupied building shall be maintained so as to not constitute a hazard to health, safety and welfare or constitute an attractive nuisance.

☒ **9.15.020(D) – Maintenance of Premises.** Premises to be maintained so as to not constitute a fire hazard or a harbor for rats, vermin, or insects by reason of wood, rank overgrowth, or an accumulation of debris.

☐ **9.15.020(E) – Attractive Nuisance.** Property owner is required to maintain property to be free of any attractive nuisance dangerous to children and consisting of abandoned or broken motor vehicles and equipment; hazardous pools, ponds, or excavations; abandoned, neglected, unused, or unprotected machinery; or any unprotected pool or unprotected reservoir, whether or not the same contains any water or liquid.

☐ **12.08.040 – Encroachment.** Encroachment or obstruction in the public right-of-way is not allowed.

☐ **13.28.050 – Garbage Container Placement.** No garbage container shall be placed or kept on or in any public street, alley, sidewalk, footpath or any public place.

☐ **15.04.060 – Permit Required.** It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use, occupy, or maintain any building or structure in the City of Morgan Hill or cause the same to be done, contrary to or in violation of any of the provisions of this Chapter.

☐ **18.88.050 - Prohibited Signs.** _____

☒ **Notes / Other:** Your property is not being maintained and is a blight to the community. There are also homeless people gathering living on site. Please remove the homeless encampment and associated trash and debris.

John Amos
Code Enforcement Officer
408-310-4628

11/15/2019
Date

FAILURE TO CORRECT THE VIOLATION(S) BY 12/1/19 MAY RESULT IN THE ISSUANCE OF A CITATION.

CITY OF MORGAN HILL

Development Services Center
Building Division
17575 Peak Ave
Morgan Hill, CA 95037-4128
Phone: (408)778-6480
Fax: (408)779-7236
www.morganhill.ca.gov

Courtesy Notice of Violation

Name: Oanh Nguyen Trinh Et Al and Nhat Huu Hoang

Mailing Address: 1717 Messina Drive

City: San Jose **State:** CA **Zip:** 95132

Address of Violation: 18545 Monterey Rd (APN# 764-10-013)

The following violation(s) exists on your property and requires your immediate attention:

☐ **5.04.110 – Business License Required.** It is unlawful for any person to commence or carry on any business in the city, without first having procured a license from the city so to do, or without complying with this chapter.

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☐ **9.15.020(E) – Attractive Nuisance.** Property owner is required to maintain property to be free of any attractive nuisance dangerous to children and consisting of abandoned or broken motor vehicles and equipment; hazardous pools, ponds, or excavations; abandoned, neglected, unused, or unprotected machinery; or any unprotected pool or unprotected reservoir, whether or not the same contains any water or liquid.

☐ **12.08.040 – Encroachment.** Encroachment or obstruction in the public right-of-way is not allowed.

☐ **13.28.050 – Garbage Container Placement.** No garbage container shall be placed or kept on or in any public street, alley, sidewalk, footpath or any public place.

☐ **15.04.060 – Permit Required.** It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use, occupy, or maintain any building or structure in the City of Morgan Hill or cause the same to be done, contrary to or in violation of any of the provisions of this Chapter.

☐ **18.88.050 - Prohibited Signs.** _____

☒ **Notes / Other:** Your property is not being maintained and is a blight to the community. There are also homeless people gathering living on site. Please remove the homeless encampment and associated trash and debris.

John Amos
Code Enforcement Officer
408-310-4628

11/15/2019
Date

FAILURE TO CORRECT THE VIOLATION(S) BY 12/1/19 MAY RESULT IN THE ISSUANCE OF A CITATION.

CITY OF MORGAN HILL No. MUNI 100049

NOTICE OF MUNICIPAL CODE VIOLATION

DATE OF VIOLATION (or Date Violation Identified) 1/28/2020			
NAME: Last: Trinh	First: Canh	Middle: Nguyen	
ADDRESS: 1717 Messina Dr			
CITY: San Jose	STATE: CA	ZIP: 95132	
TELEPHONE NUMBER			

LOCATION OF VIOLATION:

ADDRESS: 18545 Monterey Rd		
CITY: Morgan Hill	STATE: CA	ZIP: 95037

For each violation, fines shall be assessed as follows:

- ☐ First Violation $ 100
- ☐ Second Violation $ 200
- ☐ Third Violation $ 500

TOTAL FINE: $100.00

VIOLATION(S):	DESCRIPTION OF VIOLATION(S)
2018 Intl Prop Maint. Code Section 301.3	Vacant land to be maintained in clean + Sanitary Condition.

I certify that the foregoing is true and correct as of the date shown below:

Printed Name of Issuer	Signature		
John Amos			
Date Issued: 1/28/2020	Time Issued: 4:30PM	Case Number: Prop 2019-0096	Telephone Number: 408-310-4628

Make check payable to : CITY OF MORGAN HILL

Mail payment to:

CITY OF MORGAN HILL
FINANCE DEPARTMENT
17575 Peak Avenue
Morgan Hill, CA 95037

SEE REVERSE SIDE FOR IMPORTANT INFORMATION

COURT COPY

CERTIFIED (408) 291-2290 4677068

CITY OF MORGAN HILL

Development Services Center
Building Division
17575 Peak Ave
Morgan Hill, CA 95037-4128
Phone: (408)778-6480
Fax: (408)779-7236
www.morganhill.ca.gov

Courtesy Notice of Violation

Name: Oanh Nguyen Trinh Et Al and Nhat Huu Hoang

Mailing Address: 1717 Messina Drive

City: San Jose **State:** CA **Zip:** 95132

Address of Violation: 18545 Monterey Rd (APN# 764-10-013)

The following violation(s) exists on your property and requires your immediate attention:

☐ **5.04.110 – Business License Required.** It is unlawful for any person to commence or carry on any business in the city, without first having procured a license from the city so to do, or without complying with this chapter.

☒ **8.16.040 – Litter**. Property shall remain free of litter.

☐ **8.20.020 – Weeds.** It is the responsibility of every homeowner to remove or destroy weeds.

☒ **9.15.020(B) – Vacant Building or Property.** The exterior of any vacant or unoccupied building, or any fence, wall, or vegetation located on vacant or unoccupied premises or the interior of any vacant or unoccupied building shall be maintained so as to not constitute a hazard to health, safety and welfare or constitute an attractive nuisance.

☒ **9.15.020(D) – Maintenance of Premises.** Premises to be maintained so as to not constitute a fire hazard or a harbor for rats, vermin, or insects by reason of wood, rank overgrowth, or an accumulation of debris.

☐ **9.15.020(E) – Attractive Nuisance.** Property owner is required to maintain property to be free of any attractive nuisance dangerous to children and consisting of abandoned or broken motor vehicles and equipment; hazardous pools, ponds, or excavations; abandoned, neglected, unused, or unprotected machinery; or any unprotected pool or unprotected reservoir, whether or not the same contains any water or liquid.

☐ **12.08.040 – Encroachment.** Encroachment or obstruction in the public right-of-way is not allowed.

☐ **13.28.050 – Garbage Container Placement.** No garbage container shall be placed or kept on or in any public street, alley, sidewalk, footpath or any public place.

☐ **15.04.060 – Permit Required.** It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use, occupy, or maintain any building or structure in the City of Morgan Hill or cause the same to be done, contrary to or in violation of any of the provisions of this Chapter.

☐ **18.88.050 - Prohibited Signs.** _____

☒ **Notes / Other:** Your property is not being maintained and is a blight to the community. There are also homeless people gathering living on site. Please remove the homeless encampment and associated trash and debris.

John Amos
Code Enforcement Officer
408-310-4628

11/15/2019
Date

FAILURE TO CORRECT THE VIOLATION(S) BY 12/1/19 MAY RESULT IN THE ISSUANCE OF A CITATION.

CITY OF MORGAN HILL

17575 Peak Avenue
Morgan Hill, CA 95037-4128
Tel: 408-778-7271
Fax: 408-779-3117
www.morganhill.ca.gov

November 27, 2018

Oahn Nguyen Trinh and Nhat Huu Hoang
1717 Messina Drive
San Jose, CA 95132

SUBJECT: **COURTESY NOTICE OF VIOLATION**
Address: 18545 Old Monterey Rd
APN# 764-10-013

Dear Property Owner:

The City has received complaints regarding the condition of your property. The complaint is that there are multiple homeless people living on your property. Please note that you are in violation of the following code.

Code
Section 301 – General
301.3 Vacant Structures and Land – All vacant structures and premises thereof or vacant land shall be maintained in a clean, safe, secure, and sanitary condition as provided herein so as not to cause a blighting problem or adversely affect the public health or safety.

Action for Compliance

1. Please clean up any trash and debris from your property. If you need assistance with the removal of trespassers, please contact MHPD at 408-779-2101. I also attached a copy of trespassing enforcement paperwork,

You are hereby requested to complete the actions for **compliance by 12/13/18.** Failure to comply may result in the issuance of a citation or other legal action.

Your cooperation in this matter is appreciated. Should you require further information regarding our code requirements or would like to discuss this issue, please call me at 408-310-4628.

Sincerely,

John Amos
Code Enforcement Officer

MORGAN HILL POLICE DEPARTMENT
TRESPASSING ENFORCEMENT PROGRAM

To: Morgan Hill Property Owners
From: David Swing, Police Chief
Re: Instructions for the Morgan Hill Police Department Trespassing Enforcement Program

The California Penal Code provides that private property owners may authorize local law enforcement to arrest trespassers under certain provisions. If you own or manage property in the City of Morgan Hill and are experiencing problems with trespassing and loitering, you may take the following actions:

1) Post "**NO TRESPASSING/PRIVATE PROPERTY**" signs on your property. Signs **must be** posted in conspicuous locations at each of the entrances to your property, making it obvious to anyone entering your property from any direction that no trespassing is allowed. A sample of a sign is attached for your reference. Signs are available at hardware or lumber stores. The department does not provide signage.
2) Complete and return an "Arrest Authorization" form to the Chief of Police. This letter will be kept on file in the Police Department's Patrol Division. Subsequently, all police patrol units will be notified that this letter is on file.

Please complete the enclosed form and mail to:
Morgan Hill Police Department
Trespassing Enforcement Program
16200 Vineyard Boulevard
Morgan Hill, CA 95037

The form may also be dropped off at the police department or faxed to (408) 776-7329.

Please note that if signs are not posted, the "Arrest Authorization" form can only remain in effect for thirty (30) days. If signs are posted, the form remains in effect for six (6) months unless revoked in a written notice signed and delivered to the Chief of Police prior to the end of the six (6) month period. At the expiration of the six (6) month period, if trespass enforcement is still required, the property owner must complete and return another "Arrest Authorization" form.

MORGAN HILL POLICE DEPARTMENT
TRESPASSING ENFORCEMENT PROGRAM

ARREST AUTHORIZATION FORM

_____ Begin Date

_____ End Date
(180 days from Begin Date)

To: Chief David Swing
Morgan Hill Police Department

From: _____ (Name)
_____ (Address)
_____ (City, State, ZIP)
_____ (Business and Cell Phones)

I am the ☐ owner, ☐ owner's agent, ☐ person in lawful possession of the property located at:
_____

The on-site or emergency contact person is: _____
_____

I certify that the property listed above is:
☐ Closed to the public and POSTED as being closed (If so, authorization is valid for 6 months)
☐ Not open to the general public
☐ Not open to the general public between the hours of _____ and _____

Specific persons not allowed on the property (if applicable):
_____

I am the owner or owner's agent of the private property identified above which is not open to the general public and is posted as such. I have NOT authorized any individual to be on the property for the purpose of trespassing or loitering. I am requesting the Morgan Hill Police Department to patrol and inspect my property for persons trespassing or loitering on said property and hereby authorize the Morgan Hill Police Department to act as my agent for the purpose of enforcing the trespassing provisions of Penal Code § 602(o). I understand that this authorization will not cover guests of residents or management on the property or lawful labor union activities. I understand that this authorization is in effect during my absences from the premises. If I am present when the trespass occurs, it is my responsibility to notify the Morgan Hill Police Department. I understand that this request and authorization expires six (6) months from the above date and it is my responsibility to renew the letter at the time if the need exists. I, or my agent, will cooperate in the prosecution of anyone arrested for trespassing.

_____ Signature

_____ Date

PRIVATE PROPERTY

NO TRESPASSING

VIOLATORS WILL BE

ARRESTED

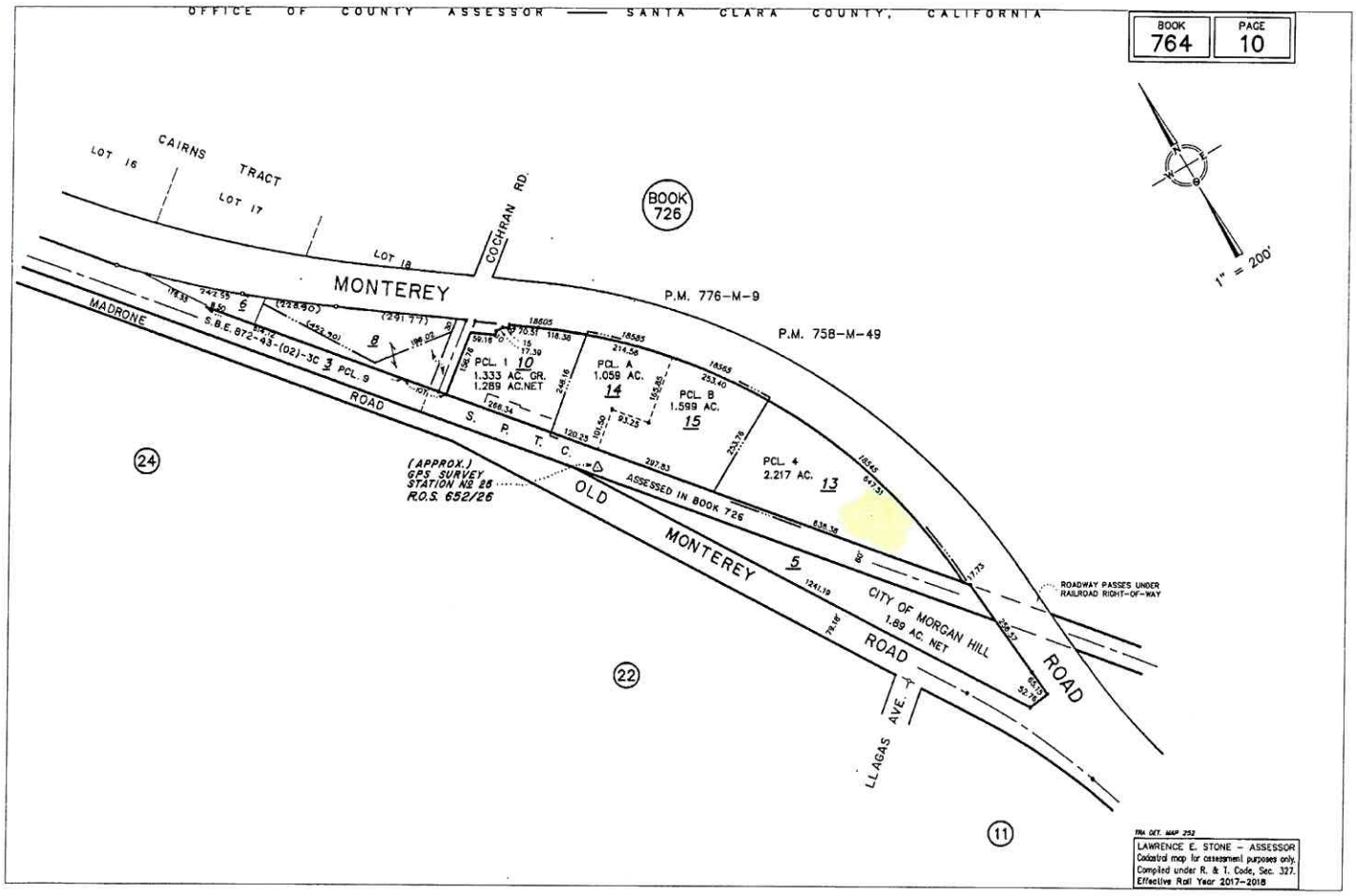
PENAL CODE SECTION 602

MORGAN HILL POLICE DEPARTMENT

MetroScan / Santa Clara (CA)

Owner	: Trinh Oanh Oanh Nguyen			*Parcel*	: 764 10 013
CoOwner	: Hoang Nhat Huu			*Bldg Id*	:
Site	: 18545 Old Monterey Rd Morgan Hill 95037			*Land*	: $1,070,786
Mail	: 1717 Messina Dr San Jose Ca 95132			*Struct*	:
Xfered	:	*Doc #*	:	*Other*	:
Price	:	*Deed*	:	*Total*	: $1,070,786
LoanAmt	:	*Loan*	:	*%Imprvd*	:
Lender	:			*% Owned*	: 45
VestTyp	:	*IntTy*	:	*Exempt*	:
LandUse	: 69 Vacant,Urban			*Type*	:
Zoning	: Pud Planned Unit Development			*TaxArea*	: 04002
SubPlat	:			17-18 *Tax*	: $12,912.30
Legal	: LOT 4			*MLS Area*	: 1
Census	: *Tract* : 5123.05	*Block* : 1		*Phone*	
MapGrid	:			*Owner*	:

Total Rms	:	*Bldg SF*	:	*Units*	:	*Year Built*	:
Bedrooms	:	*Lot SF*	: 89,992	*Patio*	:	*EffYearBlt*	:
Bathrooms	:	*Useable SF*	:	*Porch*	:	*Garage Sp*	:
Stories	:	*Lot Acres*	: 2.07	*Elevator*	:	*Garage SF*	:
Dining Rm	:	*Lot Dimen*	:	*Lease SF*	:	*Bldg Cond*	:
Family Rm	:	*Pool*	:	*Office SF*	:	*Bldg Class*	:
Rec Room	:	*Fireplace*	:	*Sprinkler*	:	*Bldg Shape*	:
CntlHt/AC	:						



Information compiled from various sources. Real Estate Solutions makes no representations or warranties as to the accuracy or completeness of information contained in this report.

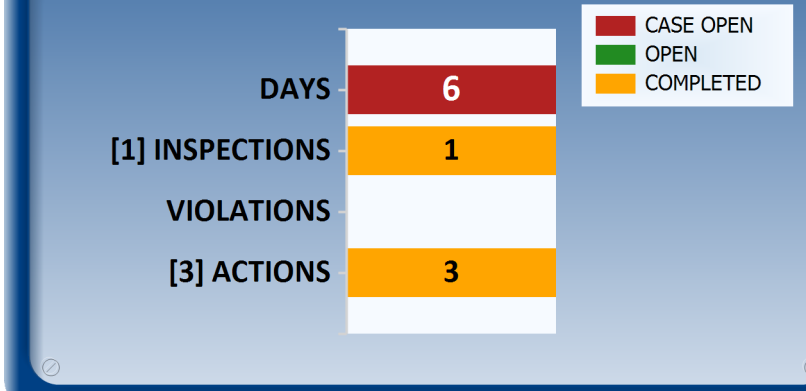
Case Details

City of Morgan Hill

Case Number
COD2013-00158

Description: grafitti on billboard sign			Status: CLOSED
Type: COD ARCHIVE		Subtype:	
Opened: 6/10/2013	Closed: 6/17/2013	Last Action:	Fllw Up:
Site Address: 18545 MONTEREY RD , 0			
Site APN: 76410013		Officer:	
Details: grafitti on billboard sign			

Case Summary



ADDITIONAL SITES

LINKED CASES

CHRONOLOGY

CHRONOLOGY TYPE	STAFF NAME	ACTION DATE	COMPLETION DATE	NOTES
CASE CLOSED	JA	6/17/2013	6/17/2013	case closed
COMPLAINT RECEIVED	JA	6/10/2013	6/10/2013	
TELEPHONE CALL	JA	6/10/2013	6/10/2013	called the owner of the billboard and advised them of the grafitti. the will take care of it asap.

CONTACTS

NAME TYPE	NAME	ADDRESS	PHONE	FAX	EMAIL
OWNER	M H GATEWAY CENTER	16060 CAPUTO DR UNIT 160 MORGAN HILL, CA 95037			

FINANCIAL INFORMATION

INSPECTIONS

Case Details

City of Morgan Hill

Case Number
COD2013-00158

INSPECTION TYPE	INSPECTOR	SCHEDULED DATE	COMPLETED DATE	RESULT	REMARKS	NOTES
1ST RECHECK	JA		6/17/2013	DONE		grafitti removed. case closed.

VIOLATIONS

ATTACHMENTS

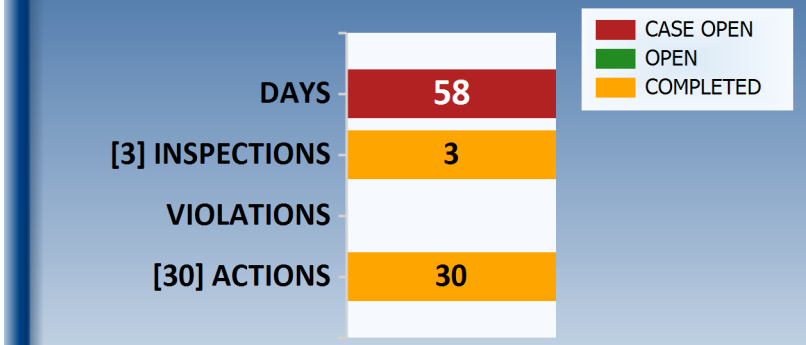
Case Details

City of Morgan Hill

Case Number
PROP2021-0002

Description: Report of Homeless Encampment on Private Property			Status: CLOSED
Type: PROPERTY MAINTENANCE		Subtype:	
Opened: 3/8/2021	Closed: 5/5/2021	Last Action:	Fllw Up:
Site Address: 18545 MONTEREY HWY MORGAN HILL, CA 95037			
Site APN: 76410013		Officer: JOHN AMOS	
Details:			

Case Summary



ADDITIONAL SITES

LINKED CASES

CHRONOLOGY

CHRONOLOGY TYPE	STAFF NAME	ACTION DATE	COMPLETION DATE	NOTES
CASE CLOSED	John Amos	5/5/2021	5/5/2021	
COMPLAINT RECEIVED	John Amos	3/8/2021	3/8/2021	

EMAIL	John Amos	3/8/2021	3/8/2021	email from Dan at PG&E stating - Hello John Homeless people have returned to this property, and the trash is piling up again. Are you able to send the property owner another notice? Thanks for your help with this! Dan Gilardoni | Land Agent Pacific Gas and Electric Company 111 Almaden Blvd. 8th floor | San Jose, CA 95113 Office: 408-282-7141
EMAIL	John Amos	3/9/2021	3/9/2021	sent an email to the RP advising that I will inspect tomorrow and then contact the owner.
EMAIL	John Amos	3/12/2021	3/12/2021	Sent an email to the property owner advising of the recent complaint that homeless have moved back to her property. Advised that I will be out next week to inspect.
EMAIL	John Amos	3/13/2021	3/13/2021	email from the property owner advising that she will check it out on Sunday.
EMAIL	John Amos	3/15/2021	3/15/2021	email from the property owner stating - Hello Jon, I went there last Sunday (3/14/2021) I saw the temporary tent under the tree close to the railroad, and some the shopping cart and clothes. Would you please help me contact the police and arrange a date so I can come the same day to clean the stuff. Thank you very much for your help and cooperation. Best Regards,

EMAIL	John Amos	3/17/2021	3/17/2021	sent an email to the property owner stating - Hi Oanh, Thank you for looking into this. Before the Police Department can assist, you will need to fill out the attached paperwork. I think you did this the last time, however, it needs to be renewed often. Once we get this filled out, I will ask PD if they can assist with posting a 72 hour notice to vacate. After that is done, I will see what I can do to coordinate an officer standby while you clean up. Thank you, John Amos Code Compliance Officer
EMAIL	John Amos	3/18/2021	3/18/2021	Email from Tony at PW stating - Hi John. I got a report of a homeless encampment that is located on private property. I know you have contacted the property owner before. Can you please see what you can do? People driving South on Monterey Rd can see it and are calling to complain. I attached a map and picture of the area. Thanks
EMAIL	John Amos	3/23/2021	3/23/2021	email from the property owner stating - Hello John, Thank you very much for your help, I just sent the form out. I will try my best to take care as soon as possible. Best Regards, Oanh Trinh
				email from PD stating - From: Shane Palsgrove <Shane.Palsgrove@morganhill.ca.gov> Sent: Monday, March 22, 2021 6:15 PM

EMAIL	John Amos	3/22/2021	3/22/2021	To: Bill Norman <Bill.Norman@morganhill.ca.gov> Cc: John Amos <John.Amos@morganhill.ca.gov> Subject: Re: Homeless issue on Facebook Thank you for the background! I'll ask Code Enforcement if they can cite the property owner. _____ From: Bill Norman <Bill.Norman@morganhill.ca.gov> Sent: Monday, March 22, 2021 5:57 PM To: Shane Palsgrove Subject: RE: Homeless issue on Facebook This has been a long term issue with the encampment. The property owner is the problem and we have been working with her since Price started in Spec Ops. SET was out there last week and contacted a female living there. I will check in with SET tomorrow and see what the next steps are... Sent via the Samsung Galaxy S9, an AT&T 5G Evolution capable smartphone -------- Original message -------- From: Shane Palsgrove <Shane.Palsgrove@morganhill.ca.gov> Date: 3/22/21 15:30 (GMT-08:00) To: Bill Norman <Bill.Norman@morganhill.ca.gov> Subject: FW: Homeless issue on Facebook Please assign accordingly—encampment Old Monterey at Monterey near railroad tracks. Thank you. Shane Palsgrove

				Police Chief **Engage With Us!** **City of Morgan Hill** **Morgan Hill Police Department** **16200 Vineyard Boulevard Morgan Hill, CA 95037** **P: 408.776.7318** **shane.palsgrove@morganhill.ca.gov** **morganhill.ca.gov | Facebook | Twitter** **Sign up for Police Department community announcements and email updates** **From: Christina Turner <Christina.Turner@morganhill.ca.gov>** **Sent: Monday, March 22, 2021 8:42 AM** **To: Shane Palsgrove <Shane.Palsgrove@morganhill.ca.gov>; Rebecca Garcia <Rebecca.Garcia@morganhill.ca.gov>; Christie Thomas <Christie.Thomas@morganhill.ca.gov>** **Cc: Edith Ramirez <Edith.Ramirez@morganhill.ca.gov>** **Subject: RE: Homeless issue on Facebook** **Good morning Team! I spoke with Rene this morning. He spent some time helping out with garbage pick up at Monterey and Old Monterey this weekend. He wanted to let me know that he noticed an encampment for a few by the rail tracks close to Starbucks. He wanted to make sure we were aware of them and were providing resources and enforcing as needed.**

EMAIL	John Amos	3/23/2021	3/23/2021	Sent an email to PD stating - Good Morning Gents, The owner is aware of the issue and I have been in contact with her. She said she will get it cleaned up so I sent her the trespassing authorization forms for her to fill out again because her old ones expired. She just sent an email this morning stating that she sent them in so I am assuming she used US mail. I replied back a few minutes ago and asked if she posted the "No Trespassing" signs. I also told her that this needs to be a priority or we will start issuing citations. Once we know the signs are posted, can someone from PD post the 3 day notice? Thank you, John Amos Code Compliance Officer
EMAIL	John Amos	3/23/2021	3/23/2021	Email from Sgt Norman at PD stating - Good Morning- I believe the property owner is living out of the area and will need to provide us with a signed letter authorizing PD to act on her behalf. We can post and then she will be responsible for the clean up. This problem has been going on for well over a year and requires the next step if there is no immediate compliance. Thanks Bill Norman Special Operations Sergeant

EMAIL	John Amos	3/25/2021	3/25/2021	email from the property owner stating - Hello John, I will come this Sunday. Would you please give me the PD number so I will call them on Sunday . Thank you very much Best Regards, Oanh Trinh
EMAIL	John Amos	3/25/2021	3/25/2021	sent an email to PD stating asking if someone can post the property tomorrow
EMAIL	John Amos	3/26/2021	3/26/2021	email from PD to the property owner stating - Hi Oanh, My name is Detective Warren. I am the Detective that handles the homeless encampments around the city. I checked and was able to locate your no trespassing form you mailed in and ensured that it is current and up to date. I understand you are coming on Sunday to clean up. Can I post no trespassing on your behalf? My partner, Detective Farrell and I are going to contact the subjects living there to let them know you are going to be here this weekend. Please let me know if this is ok. Thank you, Ryan Warren Special Enforcement Team

EMAIL	John Amos	3/26/2021	3/26/2021	email from the property owner to PD stating - Hello Mr Warren, I am sure you can post no trespassing on my behalf, sorry for being late to reply because I was busy at work all day so I could not check my email. We are really appreciate your help and cooperation, happy Friday. Best Regards, Oanh Trinh
EMAIL	John Amos	3/28/2021	3/28/2021	email from the property owner stating - Hello John, I went to the property with 2 police officer, we talked to the homeless people and they started moving their stuff a little bit, I cleaned a little bit too. My guy(the same one last year) came at 12:30 and we could not finish today, he said all the work will be done by Tuesday. When he is done his work, I will send you a picture. Thank you very much for your understanding and cooperation. Best Regards, Oanh Trinh
EMAIL	John Amos	3/30/2021	3/30/2021	sent an email to the property owner stating - Thank you for the update. I may be in the area later today and will stop by to check on the progress. Best regards, John Amos Code Compliance Officer

EMAIL	John Amos	3/29/2021	3/29/2021	sent an email to Det Warren stating - Here is an update from the property owner for the homeless encampment at 18545 Monterey. Still has more work today but sounds like there is some progress. John Amos Code Compliance Officer
EMAIL	John Amos	4/11/2021	4/11/2021	email from the CM stating - Hi! On Monday, can you please confirm this was resolved? Thank you!
EMAIL	John Amos	4/12/2021	4/12/2021	email from PD stating - This has not been resolved. Cpt. Ramos will be contacting John Amos to discuss citations, tree trimming and additional trespassing notices.
EMAIL	John Amos	4/12/2021	4/12/2021	sent an email to PD and the CM stating - Good Morning, Maybe there is some confusion. The attached photos were taken on 4/7/21. The owner went out to clean up on 3/28/21 and 2 officers met with her on site. They started clean up that day and were supposed go back out on 3/30 to complete the cleanup. I checked it on 4/7/21 and took the photos. It was cleared out unless there is somewhere else on that property where they are tucked away that I am not aware of. John
EMAIL	John Amos	4/12/2021	4/12/2021	email from the chief stating - Here you go, I little more needed. She may have left it because it was so close to the railroad tracks.

EMAIL	John Amos	4/13/2021	4/13/2021	sent an email to the property owner stating - Good Morning Oanh, Thank you for cleaning the encampment. The Police Department went out to inspect and found some additional trash that was not picked up. Can you please check this out. Pictures are below. Thank you, John Amos Code Compliance Officer
EMAIL	John Amos	4/13/2021	4/13/2021	sent an email to PD and the CM stating - Good Morning, I sent an email to the property owner with the pictures of the trash/debris and asked her to clean it up. Based on what I see from the aerial screenshot, most or all of the debris is likely on railroad property. She may push back on this one. If she does, I will reach out to Union Pacific, however, they will likely do nothing as I have tried for 6 months to get them to clean another area. Fortunately, most of this trash is not visible to the public. I will let you know how the owner responds. John Amos Code Compliance Officer
EMAIL	John Amos	4/13/2021	4/13/2021	email from the property owner stating - Hello John, I was so surprised why still A lot of trash left, I will out of town this Thursday will be back Wednesday. I will check next Sunday when I come back. Thank you very much

EMAIL	John Amos	4/21/2021	4/21/2021	sent an email to the property owner and CM stating - Just a quick follow up on this. The property owner is out of town and said she will check this out on Sunday. Again, not sure how much is on her side but hoping she will clean it up anyway.
EMAIL	John Amos	4/25/2021	4/25/2021	email from the property owner stating - Hello John, I am here now at the property. I came the spot last time we cleaned and sent you some photos. I keep going to check and I saw a small tent and no one live there any more. I cleaning all the stuff outside make look ok for now, I think the property doesn't make the area look bad. I will try to come down here to check more to avoid they come back and rebuild the tent. Thank you very much John. Best Regards, Oanh Trinh
PHONE CALL	John Amos	3/25/2021	3/25/2021	Spoke to Det Ryan Warren. He will make contact with the residents of this encampment.

CONTACTS

NAME TYPE	NAME	ADDRESS	PHONE	FAX	EMAIL
OWNER	KUZIA JOHN F TRUSTEE & ET AL	879 OAK MANOR WAY PLEASANTON, CA 94566			

FINANCIAL INFORMATION

INSPECTIONS

INSPECTION TYPE	INSPECTOR	SCHEDULED DATE	COMPLETED DATE	RESULT	REMARKS	NOTES
COMPLIANCE	JA	4/1/2021	4/1/2021	COMPLIANT		
COMPLIANCE	JA	5/5/2021	5/5/2021	COMPLIANT		violation corrected.

SITE INSPECTION	JA	3/15/2021	3/15/2021	VERIFIED		saw multiple items and tarps indicating there was an active encampment.

VIOLATIONS

ATTACHMENTS

ATTACHMENT TYPE	CREATED	OWNER	DESCRIPTION	ETRAKIT	PHOTO
IMAGE	5/25/2021	John Amos	Screenshot 2021-04-13 095159.jpg	0	
IMAGE	5/26/2021	John Amos	Encampment.jpg	0	

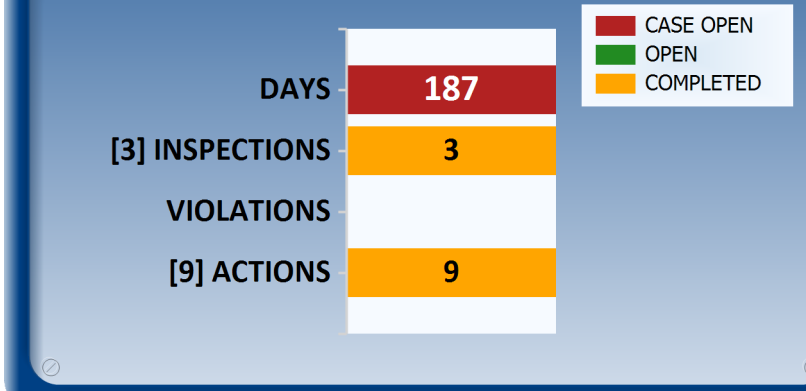
Case Details

City of Morgan Hill

Case Number
PROP2018-0091

Description: Homeless camp reported on property			Status: CLOSED
Type: PROPERTY MAINTENANCE		Subtype:	
Opened: 8/16/2018	Closed: 2/19/2019	Last Action:	Fllw Up:
Site Address: 18545 MONTEREY HWY MORGAN HILL, CA 95037			
Site APN: 76410013		Officer: JOHN AMOS	
Details:			

Case Summary



ADDITIONAL SITES

LINKED CASES

CHRONOLOGY

CHRONOLOGY TYPE	STAFF NAME	ACTION DATE	COMPLETION DATE	NOTES
CASE CLOSED	John Amos	2/19/2019	2/19/2019	
COMPLAINT RECEIVED	John Amos	8/16/2018	8/16/2018	
EMAIL	John Amos	1/16/2019	1/16/2019	Email from PD stating - I was hoping I could get your help with a property owner I've spoken with a few times, but they have not conducted the clean up yet. There was a large encampment at this location and the owner did some clean up and trimmed the grass down, but that's where it stopped. I told them there was still a good amount of garbage (ex: tarps, couch, etc.) on the property but it appears to have been ignored. Below is the owners information. Do you mind reaching out to the owner to push a little on your end?

EMAIL	John Amos	1/29/2019	1/29/2019	sent an email to PD stating - I had already sent a Notice of Violation and made phone contact with the owner. I call her again to make sure she gets on it. She has been dragging her feet.
FIRST NOTICE OF VIOLATION	John Amos	11/27/2018	11/27/2018	
PHONE CALL	John Amos	2/6/2019	2/6/2019	Per the owner, she will clean up on Sunday. Gave her the PD non-emergency number to call if she needs help with homeless people.
PHONE CALL	John Amos	1/7/2019	1/7/2019	Per the owner, they will be cleaning up. just need a week or so.
PHONE CALL	John Amos	12/19/2018	12/19/2018	owner called- wants more time.
PHONE CALL	John Amos	2/11/2019	2/11/2019	Spoke to Ohn about not cleaning. she blamed it on the weather, however, I advised that I was asked to issue a citation for non-compliance. She agreed to have completed by 2/17/19 rain or shine.

CONTACTS

NAME TYPE	NAME	ADDRESS	PHONE	FAX	EMAIL
OWNER	KUZIA JOHN F TRUSTEE & ET AL	879 OAK MANOR WAY PLEASANTON, CA 94566			

FINANCIAL INFORMATION

INSPECTIONS

INSPECTION TYPE	INSPECTOR	SCHEDULED DATE	COMPLETED DATE	RESULT	REMARKS	NOTES
COMPLIANCE	JA	12/11/2018	2/11/2019	NON-COMPLIANT		Property not cleaned up. Took photos
COMPLIANCE	JA	2/19/2019	2/19/2019	COMPLIANT		Violation corrected, case closed.
SITE INSPECTION	JA	10/16/2018	10/16/2018	VERIFIED		

VIOLATIONS

Case Details

City of Morgan Hill

Case Number

PROP2018-0091

ATTACHMENTS					
ATTACHMENT TYPE	CREATED	OWNER	DESCRIPTION	ETRAKIT	PHOTO
IMAGE	2/20/2019	John Amos	2-11-19 (1).JPG	0	
IMAGE	2/20/2019	John Amos	2-11-19 (2).JPG	0	
IMAGE	2/20/2019	John Amos	2-11-19 (3).JPG	0	

Case Details

City of Morgan Hill

Case Number

PROP2018-0091

ATTACHMENTS					
ATTACHMENT TYPE	CREATED	OWNER	DESCRIPTION	ETRAKIT	PHOTO
IMAGE	2/20/2019	John Amos	2-19-19 (1).JPG	0	
IMAGE	2/20/2019	John Amos	2-19-19 (2).JPG	0	
IMAGE	2/20/2019	John Amos	2-19-19 (3).JPG	0	

Appendix G LABORATORY ANALYTICAL REPORTS

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-75283-1
Client Project/Site: 185805226

For:
Stantec Consulting Corp.
75 East Santa Clara
Suite 1225
San Jose, California 95113

Attn: Jaylen Gregory

Authorized for release by:
6/30/2021 8:59:25 AM

Afsaneh Salimpour, Senior Project Manager
(925)484-1919
Afsaneh.Salimpour@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Job ID: 320-75283-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-75283-1

Comments
No additional comments.

Receipt
The samples were received on 6/23/2021 9:43 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Client Sample ID: HA-1-1 — Lab Sample ID: 320-75283-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.9		0.98		mg/Kg	1		6010B	Total/NA
Arsenic	23		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-2-1 — Lab Sample ID: 320-75283-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	17		0.97		mg/Kg	1		6010B	Total/NA
Arsenic	19		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3-1 — Lab Sample ID: 320-75283-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	13		0.95		mg/Kg	1		6010B	Total/NA
Arsenic	28		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3-2 — Lab Sample ID: 320-75283-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	18		0.97		mg/Kg	1		6010B	Total/NA
Arsenic	26		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-4-1 — Lab Sample ID: 320-75283-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	9.5		0.96		mg/Kg	1		6010B	Total/NA
Arsenic	5.9		1.9		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HA-1-1

Lab Sample ID: 320-75283-1

Date Collected: 06/23/21 07:35

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.9		0.98		mg/Kg		06/25/21 13:38	06/28/21 11:57	1
Arsenic	23		2.0		mg/Kg		06/25/21 13:38	06/28/21 11:57	1

Client Sample ID: HA-2-1

Lab Sample ID: 320-75283-4

Date Collected: 06/23/21 08:10

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17		0.97		mg/Kg		06/25/21 13:38	06/28/21 12:24	1
Arsenic	19		1.9		mg/Kg		06/25/21 13:38	06/28/21 12:24	1

Client Sample ID: HA-3-1

Lab Sample ID: 320-75283-7

Date Collected: 06/23/21 08:30

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13		0.95		mg/Kg		06/25/21 13:38	06/28/21 12:28	1
Arsenic	28		1.9		mg/Kg		06/25/21 13:38	06/28/21 12:28	1

Client Sample ID: HA-3-2

Lab Sample ID: 320-75283-8

Date Collected: 06/23/21 08:33

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18		0.97		mg/Kg		06/25/21 13:38	06/28/21 12:32	1
Arsenic	26		1.9		mg/Kg		06/25/21 13:38	06/28/21 12:32	1

Client Sample ID: HA-4-1

Lab Sample ID: 320-75283-10

Date Collected: 06/23/21 08:50

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.5		0.96		mg/Kg		06/25/21 13:38	06/28/21 12:36	1
Arsenic	5.9		1.9		mg/Kg		06/25/21 13:38	06/28/21 12:36	1

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-501832/1-A
Matrix: Solid
Analysis Batch: 502594

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/25/21 13:38	06/28/21 11:37	1
Arsenic	ND		2.0		mg/Kg		06/25/21 13:38	06/28/21 11:37	1

Lab Sample ID: LCS 320-501832/2-A
Matrix: Solid
Analysis Batch: 502594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501832

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			25.0	23.3		mg/Kg		93	80 - 120		
Arsenic			50.0	45.0		mg/Kg		90	80 - 120		

Lab Sample ID: 320-75283-1 MS
Matrix: Solid
Analysis Batch: 502594

Client Sample ID: HA-1-1
Prep Type: Total/NA
Prep Batch: 501832

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	1.9		23.8	23.0		mg/Kg		89	80 - 120		
Arsenic	23		47.6	66.5		mg/Kg		91	80 - 120		

Lab Sample ID: 320-75283-1 MSD
Matrix: Solid
Analysis Batch: 502594

Client Sample ID: HA-1-1
Prep Type: Total/NA
Prep Batch: 501832

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.9		24.0	23.4		mg/Kg		90	80 - 120	2	35
Arsenic	23		48.1	74.8		mg/Kg		107	80 - 120	12	35

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Metals

Prep Batch: 501832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75283-1	HA-1-1	Total/NA	Solid	3050B	
320-75283-4	HA-2-1	Total/NA	Solid	3050B	
320-75283-7	HA-3-1	Total/NA	Solid	3050B	
320-75283-8	HA-3-2	Total/NA	Solid	3050B	
320-75283-10	HA-4-1	Total/NA	Solid	3050B	
MB 320-501832/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-501832/2-A	Lab Control Sample	Total/NA	Solid	3050B	
320-75283-1 MS	HA-1-1	Total/NA	Solid	3050B	
320-75283-1 MSD	HA-1-1	Total/NA	Solid	3050B	

Analysis Batch: 502594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75283-1	HA-1-1	Total/NA	Solid	6010B	501832
320-75283-4	HA-2-1	Total/NA	Solid	6010B	501832
320-75283-7	HA-3-1	Total/NA	Solid	6010B	501832
320-75283-8	HA-3-2	Total/NA	Solid	6010B	501832
320-75283-10	HA-4-1	Total/NA	Solid	6010B	501832
MB 320-501832/1-A	Method Blank	Total/NA	Solid	6010B	501832
LCS 320-501832/2-A	Lab Control Sample	Total/NA	Solid	6010B	501832
320-75283-1 MS	HA-1-1	Total/NA	Solid	6010B	501832
320-75283-1 MSD	HA-1-1	Total/NA	Solid	6010B	501832

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Client Sample ID: HA-1-1
Lab Sample ID: 320-75283-1
Date Collected: 06/23/21 07:35
Matrix: Solid
Date Received: 06/23/21 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	501832	06/25/21 13:38	JP	TAL SAC
Total/NA	Analysis	6010B		1			502594	06/28/21 11:57	GSH	TAL SAC

Client Sample ID: HA-2-1
Lab Sample ID: 320-75283-4
Date Collected: 06/23/21 08:10
Matrix: Solid
Date Received: 06/23/21 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	501832	06/25/21 13:38	JP	TAL SAC
Total/NA	Analysis	6010B		1			502594	06/28/21 12:24	GSH	TAL SAC

Client Sample ID: HA-3-1
Lab Sample ID: 320-75283-7
Date Collected: 06/23/21 08:30
Matrix: Solid
Date Received: 06/23/21 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	100 mL	501832	06/25/21 13:38	JP	TAL SAC
Total/NA	Analysis	6010B		1			502594	06/28/21 12:28	GSH	TAL SAC

Client Sample ID: HA-3-2
Lab Sample ID: 320-75283-8
Date Collected: 06/23/21 08:33
Matrix: Solid
Date Received: 06/23/21 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	501832	06/25/21 13:38	JP	TAL SAC
Total/NA	Analysis	6010B		1			502594	06/28/21 12:32	GSH	TAL SAC

Client Sample ID: HA-4-1
Lab Sample ID: 320-75283-10
Date Collected: 06/23/21 08:50
Matrix: Solid
Date Received: 06/23/21 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	100 mL	501832	06/25/21 13:38	JP	TAL SAC
Total/NA	Analysis	6010B		1			502594	06/28/21 12:36	GSH	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2897	01-31-22

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-75283-1	HA-1-1	Solid	06/23/21 07:35	06/23/21 09:43	
320-75283-4	HA-2-1	Solid	06/23/21 08:10	06/23/21 09:43	
320-75283-7	HA-3-1	Solid	06/23/21 08:30	06/23/21 09:43	
320-75283-8	HA-3-2	Solid	06/23/21 08:33	06/23/21 09:43	
320-75283-10	HA-4-1	Solid	06/23/21 08:50	06/23/21 09:43	

320-75283

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 200012

Date 6/23/21 Page 1 of 2

Report To

Attn.
Company: Stantec
Address: 75 E. Santa Clara St. Suite#1225
Email: Jaylen.gregory@stantec.com
Bill To.
Sampled By: Jaylen.G
Attn.
Phone: 408-221-0915

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	RNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ___ ☐ 9040 ☐ SM4500	☐ Spec. Cond ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Lead + Arsenic by EPA 6010B	
HA-1-1	6/23/21	0735	S																				X	
HA-1-2		0740																					X	Hold
HA-1-3		0749																					X	Hold
HA-2-1		0810																					X	
HA-2-2		0818																					X	Hold
HA-2-3		0827																					X	Hold
HA-3-1		0830																					X	
HA-3-2		[redacted]																					X	Hold
HA-3-3		0840																					X	Hold

320-75283 Chain of Custody

Page 13 of 18

Project Info.

Project Name/ #: 185805226
PO#:
Credit Card Y/N
If yes, please call with payment information ASAP

Sample Receipt

of Containers: 12
Head Space:
Temp: 5.6

TAT	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Other
							7 day

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments. ☐ Global ID ___

See Terms and Conditions on reverse

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: Jaylen W. Gregory Time: 0943	Signature: Time:	Signature: Time:
Printed Name: Jaylen Gregory Date: 6/23/21	Printed Name: Date:	Printed Name: Date:
Company: Stantec	Company:	Company:

1) Received by	2) Received by	3) Received by
Signature: Time: 943	Signature: Time:	Signature: Time:
Printed Name: Date: 6/23/21	Printed Name: Date:	Printed Name: Date:
Company: ESTS1	Company:	Company:

Rev 10/2

6/30/2021

320-75283

Reference #: 200012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone. (925) 484-1919 • Fax: (925) 600-3002

Date 6/23/21 Page 2 of 2

Report To

Attn:
Company:
Address.
Email.
Bill To
Sampled By:
Attn
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Lead + Arsenic by EPA 6010B	
HA-4-1	6/23/21	0850	S																			X	
HA-4-2	↓	0857	↓																			X	Hold
HA-4-3	↓	0905	↓																			X	Hold

Page 14 of 18

Project Info.

Project Name/ #:
PO#:
Credit Card Y/N — If yes, please call with payment information ASAP

Sample Receipt

# of Containers.
Head Space:
Temp: 5-6

TAT	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments. ☐ Global ID _____

See Terms and Conditions on reverse

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: [signature] Time: 0943	Signature: Time:	Signature: Time:
Printed Name: Jaylen. Date: 6/23/21	Printed Name: Date:	Printed Name: Date:
Company: Stantec	Company:	Company:

1) Received by	2) Received by	3) Received by
Signature: [signature] Time: 943	Signature: Time:	Signature: Time:
Printed Name: [signature] Date: 6/23/21	Printed Name: Date:	Printed Name: Date:
Company: TEPA 5 S	Company:	Company:

6/30/2021

Rev 10/2

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Salimpour, Afsaneh F	Carrier Tracking No(s):	COC No: 320-229506.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Afsaneh.Salimpour@Eurofinset.com	State of Origin: California	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 320-75283-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/30/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 185805226	Project #: 32017932			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B As & PB	6010B/3050B As & PB (Hold)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
HA-1-1 (320-75283-1)	6/23/21	07:35 Pacific		Solid			X		1	
HA-1-2 (320-75283-2)	6/23/21	07:40 Pacific		Solid				X	1	
HA-1-3 (320-75283-3)	6/23/21	07:49 Pacific		Solid				X	1	
HA-2-1 (320-75283-4)	6/23/21	08:10 Pacific		Solid			X		1	
HA-2-2 (320-75283-5)	6/23/21	08:18 Pacific		Solid				X	1	
HA-2-3 (320-75283-6)	6/23/21	08:27 Pacific		Solid				X	1	
HA-3-1 (320-75283-7)	6/23/21	08:30 Pacific		Solid			X		1	
HA-3-2 (320-75283-8)	6/23/21	08:33 Pacific		Solid				X	1	
HA-3-3 (320-75283-9)	6/23/21	08:40 Pacific		Solid				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	6/23/21 16 UC	EMA 51	Received by:	6/23/21 16 UC	DCS
Relinquished by:	6-23-21/2010	DO	Received by:	6-23-21/20:10	ETASAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.9

Ver: 11/01/2020

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Salimpour, Afsaneh F	Carrier Tracking No(s):	COC No: 320-229506.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Afsaneh.Salimpour@Eurofinset.com	State of Origin: California	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 320-75283-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/30/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 185805226	Project #: 32017932			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B As & PB	6010B/3050B As & PB (Hold)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
HA-4-1 (320-75283-10)	6/23/21	08:50 Pacific		Solid			X		1	
HA-4-2 (320-75283-11)	6/23/21	08:57 Pacific		Solid				X	1	
HA-4-3 (320-75283-12)	6/23/21	09:05 Pacific		Solid				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	6/23/21 1600	EMSL	Received by:	6/23/21 1800	DCS
Relinquished by:	6-23-21 2010	DCS	Received by:	6-23-21 2010	ETASAC
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 320-75283-1

Login Number: 75283
List Number: 1
Creator: Garcia, Hilario A

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 320-75283-1

Login Number: 75283 **List Source: Eurofins TestAmerica, Sacramento**
List Number: 2
Creator: Guzman, Juan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-75283-2
Client Project/Site: 185805226

For:
Stantec Consulting Corp.
75 East Santa Clara
Suite 1225
San Jose, California 95113

Attn: Jaylen Gregory

Authorized for release by:
7/2/2021 1:30:14 PM

Afsaneh Salimpour, Senior Project Manager
(925)484-1919
Afsaneh.Salimpour@Eurofinset.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Job ID: 320-75283-2

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-75283-2

Comments
No additional comments.

Receipt
The samples were received on 6/23/2021 9:43 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Client Sample ID: HA-1-2 — Lab Sample ID: 320-75283-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.8		0.98		mg/Kg	1		6010B	Total/NA
Arsenic	18		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1-3 — Lab Sample ID: 320-75283-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.9		0.96		mg/Kg	1		6010B	Total/NA
Arsenic	64		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-2-2 — Lab Sample ID: 320-75283-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	14		0.97		mg/Kg	1		6010B	Total/NA
Arsenic	14		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-2-3 — Lab Sample ID: 320-75283-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.0		1.0		mg/Kg	1		6010B	Total/NA
Arsenic	6.7		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3-3 — Lab Sample ID: 320-75283-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	17		0.98		mg/Kg	1		6010B	Total/NA
Arsenic	22		2.0		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HA-1-2

Lab Sample ID: 320-75283-2

Date Collected: 06/23/21 07:40

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.8		0.98		mg/Kg		06/30/21 13:44	07/01/21 12:31	1
Arsenic	18		2.0		mg/Kg		06/30/21 13:44	07/01/21 12:31	1

Client Sample ID: HA-1-3

Lab Sample ID: 320-75283-3

Date Collected: 06/23/21 07:49

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.9		0.96		mg/Kg		06/30/21 13:44	07/01/21 12:50	1
Arsenic	64		1.9		mg/Kg		06/30/21 13:44	07/01/21 12:50	1

Client Sample ID: HA-2-2

Lab Sample ID: 320-75283-5

Date Collected: 06/23/21 08:18

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	14		0.97		mg/Kg		06/30/21 13:44	07/01/21 12:54	1
Arsenic	14		1.9		mg/Kg		06/30/21 13:44	07/01/21 12:54	1

Client Sample ID: HA-2-3

Lab Sample ID: 320-75283-6

Date Collected: 06/23/21 08:27

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.0		1.0		mg/Kg		06/30/21 13:44	07/01/21 12:58	1
Arsenic	6.7		2.0		mg/Kg		06/30/21 13:44	07/01/21 12:58	1

Client Sample ID: HA-3-3

Lab Sample ID: 320-75283-9

Date Collected: 06/23/21 08:40

Matrix: Solid

Date Received: 06/23/21 09:43

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17		0.98		mg/Kg		06/30/21 13:44	07/01/21 13:02	1
Arsenic	22		2.0		mg/Kg		06/30/21 13:44	07/01/21 13:02	1

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-503110/1-A
Matrix: Solid
Analysis Batch: 503577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 503110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/30/21 13:44	07/01/21 11:48	1
Arsenic	ND		2.0		mg/Kg		06/30/21 13:44	07/01/21 11:48	1

Lab Sample ID: LCS 320-503110/2-A
Matrix: Solid
Analysis Batch: 503577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 503110

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			25.0	23.9		mg/Kg		96	80 - 120		
Arsenic			50.0	45.3		mg/Kg		91	80 - 120		

Lab Sample ID: 320-75283-2 MS
Matrix: Solid
Analysis Batch: 503577

Client Sample ID: HA-1-2
Prep Type: Total/NA
Prep Batch: 503110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	1.8		24.0	23.7		mg/Kg		91	80 - 120		
Arsenic	18		48.1	61.6		mg/Kg		90	80 - 120		

Lab Sample ID: 320-75283-2 MSD
Matrix: Solid
Analysis Batch: 503577

Client Sample ID: HA-1-2
Prep Type: Total/NA
Prep Batch: 503110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.8		25.0	24.0		mg/Kg		89	80 - 120	1	35
Arsenic	18		50.0	60.0		mg/Kg		84	80 - 120	3	35

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Metals

Prep Batch: 503110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75283-2	HA-1-2	Total/NA	Solid	3050B	
320-75283-3	HA-1-3	Total/NA	Solid	3050B	
320-75283-5	HA-2-2	Total/NA	Solid	3050B	
320-75283-6	HA-2-3	Total/NA	Solid	3050B	
320-75283-9	HA-3-3	Total/NA	Solid	3050B	
MB 320-503110/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-503110/2-A	Lab Control Sample	Total/NA	Solid	3050B	
320-75283-2 MS	HA-1-2	Total/NA	Solid	3050B	
320-75283-2 MSD	HA-1-2	Total/NA	Solid	3050B	

Analysis Batch: 503577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75283-2	HA-1-2	Total/NA	Solid	6010B	503110
320-75283-3	HA-1-3	Total/NA	Solid	6010B	503110
320-75283-5	HA-2-2	Total/NA	Solid	6010B	503110
320-75283-6	HA-2-3	Total/NA	Solid	6010B	503110
320-75283-9	HA-3-3	Total/NA	Solid	6010B	503110
MB 320-503110/1-A	Method Blank	Total/NA	Solid	6010B	503110
LCS 320-503110/2-A	Lab Control Sample	Total/NA	Solid	6010B	503110
320-75283-2 MS	HA-1-2	Total/NA	Solid	6010B	503110
320-75283-2 MSD	HA-1-2	Total/NA	Solid	6010B	503110

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Client Sample ID: HA-1-2
Date Collected: 06/23/21 07:40
Date Received: 06/23/21 09:43

Lab Sample ID: 320-75283-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	503110	06/30/21 13:44	JP	TAL SAC
Total/NA	Analysis	6010B		1			503577	07/01/21 12:31	GSH	TAL SAC

Client Sample ID: HA-1-3
Date Collected: 06/23/21 07:49
Date Received: 06/23/21 09:43

Lab Sample ID: 320-75283-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	100 mL	503110	06/30/21 13:44	JP	TAL SAC
Total/NA	Analysis	6010B		1			503577	07/01/21 12:50	GSH	TAL SAC

Client Sample ID: HA-2-2
Date Collected: 06/23/21 08:18
Date Received: 06/23/21 09:43

Lab Sample ID: 320-75283-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	503110	06/30/21 13:44	JP	TAL SAC
Total/NA	Analysis	6010B		1			503577	07/01/21 12:54	GSH	TAL SAC

Client Sample ID: HA-2-3
Date Collected: 06/23/21 08:27
Date Received: 06/23/21 09:43

Lab Sample ID: 320-75283-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	100 mL	503110	06/30/21 13:44	JP	TAL SAC
Total/NA	Analysis	6010B		1			503577	07/01/21 12:58	GSH	TAL SAC

Client Sample ID: HA-3-3
Date Collected: 06/23/21 08:40
Date Received: 06/23/21 09:43

Lab Sample ID: 320-75283-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	503110	06/30/21 13:44	JP	TAL SAC
Total/NA	Analysis	6010B		1			503577	07/01/21 13:02	GSH	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2897	01-31-22

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-75283-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-75283-2	HA-1-2	Solid	06/23/21 07:40	06/23/21 09:43	
320-75283-3	HA-1-3	Solid	06/23/21 07:49	06/23/21 09:43	
320-75283-5	HA-2-2	Solid	06/23/21 08:18	06/23/21 09:43	
320-75283-6	HA-2-3	Solid	06/23/21 08:27	06/23/21 09:43	
320-75283-9	HA-3-3	Solid	06/23/21 08:40	06/23/21 09:43	

Salimpour, Afsaneh

From: Jansen, Alicia <Alicia.Jansen@stantec.com>
Sent: Wednesday, June 30, 2021 10:00 AM
To: Salimpour, Afsaneh; Gregory, Jaylen
Subject: RE: Eurofins TestAmerica report and EDD files from 320-75283-1 185805226

EXTERNAL EMAIL*

Good Morning Afsaneh,

Please have arsenic analysis run on samples HA-1-2, HA-1-3, HA-2-2, HA-2-3, and HA-3-3 on a 24-hr TAT. Is that possible?

Alicia Jansen
Associate Scientist
Stantec Consulting Services Inc.
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408
Direct: (909) 255-8213
Cell: (909) 654-8342
Fax: (909) 335-6120
Stantec

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Read more about Stantec's COVID-19 response, including remote working and business continuity measures.

Stantec

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From: Afsaneh Salimpour <Afsaneh.Salimpour@Eurofinset.com>
Sent: Wednesday, June 30, 2021 9:01 AM
To: Jansen, Alicia <Alicia.Jansen@stantec.com>; Gregory, Jaylen <Jaylen.Gregory@stantec.com>
Subject: Eurofins TestAmerica report and EDD files from 320-75283-1 185805226

Hello,

Attached please find the report and EDD files for job 320-75283-1; 185805226

Please feel free to contact me if you have any questions.

Thank you.

Afsaneh F Salimpour
Project Manager

Eurofins TestAmerica, Sacramento
Phone: 925-484-1919

E-mail: Afsaneh.Salimpour@Eurofinset.com
www.eurofinsus.com/env



Reference: [320-358146]
Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 320-75283-2

Login Number: 75283
List Number: 1
Creator: Garcia, Hilario A

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 320-75283-2

Login Number: 75283
List Number: 2
Creator: Guzman, Juan

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Additional Arsenic Assessment

18545-18565 Monterey Road,
Morgan Hill, California 95037

July 29, 2021

Prepared for:

City Ventures
444 Spear Street, Suite 200
San Francisco, CA 94105

Prepared by:

Stantec Consulting Services Inc.
735 East Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project No.: 185805226

ADDITIONAL ARSENIC ASSESSMENT

This document entitled Additional Arsenic Assessment was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of City Ventures (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The work performed herein was done in conformance the Master Services agreement between the Client and Stantec (the "MSA"). In the event of any conflict between this document and the MSA, the MSA will prevail.

The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Author: _____

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Independent Reviewer: _____

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Managing Principal Geologist

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Executive Summary

Stantec Consulting Services Inc. (Stantec) has prepared this Additional Arsenic Assessment (Assessment) report for the property located at 18545-18565 Monterey Road, City of Morgan Hill, County of Santa Clara, California (the "Property", **Figure 1**), on behalf of City Ventures (the "Client"). The work performed herein was done in conformance the Master Services agreement between the Client and Stantec (the "MSA"). In the event of any conflict between this document and the MSA, the MSA will prevail.

The Property consists of approximately 4.17 acres of primarily undeveloped land and a portion of an asphalt parking lot. A Property location map is illustrated on **Figure 1**. A Property map illustrating the main features of the Property is provided as **Figure 2**.

The following environmental issues were identified in Stantec's *Phase I and II Environmental Site Assessment* report dated July 8, 2021 conducted on the Property:

- Railroad tracks are located adjacent to the west-southwest of the Property. The presence of railroad tracks adjacent to the Property can be a potential concern due to the possible use of herbicides containing heavy metals for weed abatement along the railroad tracks. Accordingly, Stantec recommended collection of soil samples for chemical analysis to determine if heavy metals associated with herbicides were present at levels that may represent a Recognized Environmental Condition (REC) or that are of concern to residential development.

  To evaluate the adjacent railroad tracks discussed above, Stantec completed a Phase II ESA at the Property on June 23, 2021. The scope of the investigation included the hand augering and sampling of four (4) soil borings (HA-1 through HA-4) to approximately 3-feet below ground surface (bgs) adjacent to the west-southwestern Property boundary near the railroad tracks.

  Soil samples were collected at 0.5 to 1.0, 1.5 to 2.0, and 2.5 to 3.0-foot depth intervals for potential analysis of lead and arsenic. The deeper soil samples (1.5 to 2.0, and 2.5 to 3.0) were be placed on hold pending the analysis of the shallow sample. A total of ten (10) soil samples were submitted for laboratory analysis of the metals arsenic and lead by USEPA test method 6010B.

  Lead was detected at concentrations ranging from 1.8 to 18 milligrams per kilogram (mg/kg). These concentrations are well below the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Level (ESL) for residential use of 32 mg/kg, and also below the Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) residential screening level of 80 mg/kg for lead. Therefore, lead was not considered a concern to the site and no further assessment or action was recommended.

  Arsenic was detected in all of the shallow soil samples at concentrations ranging from 5.9 to 28 mg/kg. These concentrations are above the ESL for residential use of 0.067 mg/kg and at certain locations and sample depths above the California naturally-occurring regional background levels of 0.6 to 11.0 mg/kg. Therefore, where exceedances above background concentrations of 11.0 mg/kg were detected, the deeper soil samples from the 2.0 and 3.0-feet interval were also analyzed for arsenic.

Specifically, from borings HA-1, HA-2, and HA-3. Arsenic was detected in all of the deeper soil samples at concentrations ranging up to 64 mg/kg.

Based on these results, the elevated detections of arsenic exceed regulatory screening criteria and naturally occurring background levels and are considered a REC to the Property. Stantec recommended further lateral and vertical delineation to determine the estimated quantity of arsenic impacted soil that will need to be addressed prior to residential redevelopment.

Accordingly, to further delineate the vertical and lateral limits of the detected arsenic impacts to soil, Stantec performed an additional assessment at the Property in July 2021. The results of this assessment are discussed below.

Phase II Results

To delineate the vertical and lateral limits of the arsenic impacted soil, Stantec collected shallow soil samples surrounding borings previous borings HA-1, HA-2, and HA-3 on the Property on July 13, 2021. A total of 11 soil borings were advanced to five (5) feet below ground surface (bgs) (**Figure 2**). A total of 40 soil samples were collected at the 0.5-1.0-foot, 1.5-2.0-feet, 2.5-3.0-feet, 3.5-4.0-feet, and 4.5-5.0 feet intervals. The soil samples were analyzed for the metal arsenic by USEPA test method 6010B.

Soils encountered during this assessment consisted of silty sand to the maximum explored depth of 5-feet bgs. All collected soil samples were logged in the laboratory chain of custody provided in **Appendix A**. A summary of the analytical data from this assessment is provided in **Table 1**.

Arsenic was detected in all of the additional soil samples collected at concentrations ranging from 5.1 to 57 mg/kg. All arsenic detections are above the ESL for residential use of 0.067 mg/kg. However, some of the reported concentrations are within naturally occurring background levels of 0.6-11.0 mg/kg used by California regulatory agencies as cleanup standards. The results are discussed below.

Discussion and Recommendation

Based on the results from the June and July sampling events, the shallow soil along the western property boundary adjacent to the railroad tracks is impacted with arsenic above regulatory screening levels. The arsenic-impacted soil in the vicinity of HA-1 has not been defined vertically given the concentration of 57 mg/kg reported at a depth of 5-feet bgs in HA-1. However, the impact laterally has been defined to the east and south by borings HA-1B and HA-1C, and by the property line to the west. Given the borings completed to date, the volume of soil with arsenic concentrations exceeding naturally-occurring regional background levels at boring location HA-1 is estimated at about 50 cubic yards, based on the reasonable assumption that the vertical limits are less than six (6) feet and the northern limits not defined to date are less than 10 feet from boring HA-1.

The arsenic-impacted soil in the vicinity of HA-2 has been defined vertically to less than 3 feet in depth by the sample collected at 3 feet at 6.7 mg/kg. The impact laterally has been defined to the north and south by borings HA-1A and HA-1C, and by the property line to the west. The limits to the east into the property have not been defined at depths less than 1 foot by boring HA-2B. Given the borings completed to date, the volume

at boring location HA-2 is estimated at about 30 cubic yards, based on the reasonable assumption that the vertical limits are less than three (3) feet and the eastern limits, which are not currently defined to date, are less than 10 feet from boring HA-2.

The arsenic-impacted soil in the vicinity of HA-3 has been defined vertically to less than 4 feet in depth by the sample collected at 4 feet at 7.5 mg/kg. The impact laterally has been defined in all directions by borings HA-3A, HA-3B, and HA-3C and the western property line. Given the borings completed to date, the volume at boring location HA-3 is estimated at about 25 cubic yards, based on the reasonable assumption that the vertical limits are less than four (4) feet.

Based on the assessment completed to date, the estimated volume of arsenic impacted soil along the western property line in common with the rail line is estimated at 105 cubic yards of soil. Given that the lateral limits are not completely defined, it is recommended that a contingency be applied to this volume to account for these unknowns. Stantec is recommending a 50 percent contingency be applied to bring the estimated total to approximately 160 cubic yards of soil that will require removal from the Property.

Stantec would consider this volume of soil to be a *de minimis* volume and condition that would not warrant regulatory oversight. It would be recommended that this soil be excavated, removed from the Site, and verification soil samples collected from each of the three excavations at borings HA-1, HA-2, and HA-3 to confirm removal of the arsenic to the proposed cleanup level of 11.0 mg/kg. Based on the collected soil data the soil should not be classified as a California hazardous waste.

Please read the following report for more detailed discussion of the findings of this completed assessment.



1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) has prepared this Additional Arsenic Assessment report for the property located at 18545-18565 Monterey Road, City of Morgan Hill, County of Santa Clara, California (the "Property", **Figure 1**), on behalf of City Ventures (the "Client"). The assessment activities presented in this report were completed in accordance with Stantec's *Additional Arsenic Assessment*, dated July 5, 2021. This assessment was performed based on the findings of Stantec's *Phase I and II Environmental Site Assessment* report dated July 8, 2021.

1.1 PROPERTY DESCRIPTION AND OPERATIONS

The Property consists of approximately 4.17 acres of primarily undeveloped land and a portion of an asphalt parking lot. A Property location map is illustrated on **Figure 1**. A Property map illustrating the main features of the Property is provided as **Figure 2**.

1.2 PROPERTY GEOLOGY AND HYDROGEOLOGY

The Property is located in Santa Clara County. The area is located within the Coast Ranges Geomorphic Province, which includes northwest-southeast trending mountain ranges and valleys that have been developed by the San Andreas Fault system (California Geological Survey [CGS], 2002). The Property sits in a valley between the Santa Cruz Mountains to the west and the Diablo Range to the east. The stratigraphy underlying the Site consists primarily of recent-age alluvium (CDMG, 1961).

According to the *Site Investigation Report* for the Former Shell Service Station located at 17905 Monterey Street, Morgan Hill, California prepared by Cambria Environmental Technology, Inc. (Cambria) dated July 31, 1998, the subsurface in the vicinity of the Property consists of sandy fine-grained sediments (clay and silt) with minor amounts of coarse-grained sediments (silty sand and sand) to a maximum depth of 27 feet below ground surface (bgs). During Stantec subsurface assessment conducted at the Property, soils encountered consisted of silty sand to the maximum explored depth of 5-feet bgs.

The closest mapped recently active fault is the Calaveras Fault located approximately 4 miles northeast (CGS, 2011). According to official maps of California, the Property is not located within an Alquist-Priolo (AP) Earthquake Fault Zone boundary (CDMG, 2000).

The Property is located within the South Santa Clara Valley Basin (305.30), within the Pajaro River Hydrologic Unit (305.00) (California Regional Water Quality Control Board [CRWQCB], 1995). According to the Groundwater Monitoring Report – Third Quarter 2012 for the Former Shell Service Station prepared by Conestoga-Rovers & Associates, depth to groundwater ranges from 30.38 to 34.27 feet below top of well casing with an easterly groundwater flow direction.

2.0 BACKGROUND

The following environmental issues were identified in Stantec's *Phase I and II Environmental Site Assessment* report dated July 8, 2021 conducted on the Property:

- Railroad tracks are located adjacent to the west-southwest of the Property. The presence of railroad tracks adjacent to the Property can be a potential concern due to the possible use of herbicides containing heavy metals for weed abatement along the railroad tracks. Accordingly, Stantec recommended collection of soil samples for chemical analysis to determine if heavy metals associated with herbicides were present at levels that may represent a Recognized Environmental Condition (REC) or that are of concern to residential development.

  To evaluate the adjacent railroad tracks discussed above, Stantec completed a Phase II ESA at the Property on June 23, 2021. The scope of the investigation included the hand augering and sampling of four (4) soil borings (HA-1 through HA-4) to approximately 3-feet below ground surface (bgs) adjacent to the west-southwestern Property boundary near the railroad tracks.

  Soil samples were be collected at 0.5 to 1.0, 1.5 to 2.0, and 2.5 to 3.0-foot depth intervals for potential analysis of lead and arsenic. The deeper soil samples (1.5 to 2.0, and 2.5 to 3.0) were be placed on hold pending the analysis of the shallow sample. A total of ten (10) soil samples were submitted for laboratory analysis of the metals arsenic and lead by USEPA test method 6010B.

  Lead was detected at concentrations ranging from 1.8 to 18 milligrams per kilogram (mg/kg). These concentrations are well below the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Level (ESL) for residential use of 32 mg/kg, and also below the Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) residential screening level of 80 mg/kg for lead. Therefore, lead was not considered a concern to the site and no further assessment or action was recommended.

  Arsenic was detected in all of the shallow soil samples at concentrations ranging from 5.9 to 28 mg/kg. These concentrations are above the ESL for residential use of 0.067 mg/kg and at certain locations and sample depths above the California naturally-occurring regional background levels of 0.6 to 11.0 mg/kg. Therefore, where exceedances above background concentrations of 11.0 mg/kg were detected, the deeper soil samples from the 2.0 and 3.0-feet interval were also analyzed for arsenic. Specifically, from borings HA-1, HA-2, and HA-3. Arsenic was detected in all of the deeper soil samples at concentrations ranging up to 64 mg/kg.

  Based on these results, the elevated detections of arsenic exceed regulatory screening criteria and naturally occurring background levels and are considered a REC to the Property. Stantec recommended further lateral and vertical delineation to determine the estimated quantity of arsenic impacted soil that will need to be addressed prior to residential redevelopment.

ADDITIONAL ARSENIC ASSESSMENT

Background

To delineate the impacted soil, Stantec performed an additional arsenic assessment at the Property in July 2021. The results of that investigation are presented in the following sections of this report.

3.0 FIELD INVESTIGATION

Prior to the commencement of fieldwork activities, Stantec made the following preparations:

3.1 PRE-DRILLING ACTIVITIES

- In accordance with federal Occupational Safety and Health Administration (OSHA) regulations (29 CFR, Section 1910.120), Stantec developed a site-specific Health and Safety Plan (HASP) for the Property. All Stantec personnel and subcontractors associated with the project were required to be familiar with and comply with all provisions of the HASP.

3.2 INVESTIGATION

Stantec provided the services of a field technician on July 13, 2021 to supervise and direct the advancement of 11 soil borings at the Property. All work was conducted under the direct oversight of a State of California professional and included the following:

- Advancement of 11 borings (HA-1, HA-1A, HA-1B, HA-1C, HA-2A, HA-2B, HA-2C, HA-3, HA-3A, HA-3B, and HA-3C) as step out borings to the boring HA-1, HA-2, and HA-3 where arsenic was detected above the anticipated site cleanup level of 11.0 mg/kg. These step out borings were used to define the vertical and lateral limits of arsenic surrounding the referenced borings.

All boring locations advanced during this investigation are depicted on **Figure 2**.

3.2.1 Soil Boring and Sampling Procedures

A hand auger was used to drill each boring to a maximum depth of five (5) feet below ground surface (bgs) within each boring location. Soil samples were collected from each boring by discharging the hand auger contents at the designed depths directly into pre-cleaned laboratory-provided eight-ounce glass jars with Teflon®-lined lids.

All sample containers were labeled with the appropriate identification information (boring number, sample depth, sample collection date, and sample collection time). The samples were logged on a chain-of-custody form and delivered to a state certified laboratory for analysis. Laboratory analysis is discussed in Section 4.0.

3.2.2 Field Equipment Cleaning Procedures

To maintain quality control during drilling operations, all drill rods and reusable soil sampling equipment was decontaminated using a triple bucket rinse. Prior to drilling at a given location or sampling interval, all equipment coming in direct contact with soil samples was scrubbed with an Alconox scrub solution followed by a clean tap water rinse and then a final distilled water rinse.

4.0 LABORATORY TESTING PROGRAM

Soil samples collected during this investigation were delivered under chain of custody to Eurofins TestAmerica, located in West Sacramento, California. Select soil samples were submitted for analysis of arsenic by United States Environmental Protection Agency (USEPA) test method 6010B.

5.0 INVESTIGATION RESULTS

5.1 FIELD OBSERVATIONS

Soils encountered during this assessment consisted of silty sand from surface to the maximum explored depth of 5-feet bgs. All collected soil samples were logged in the laboratory chain of custody provided in **Appendix A**.

5.2 ANALYTICAL RESULTS

Laboratory analytical test results from this assessment are attached as **Appendix A**. A summary of the analytical data from this assessment is provided in **Table 1**. All soil concentrations are reported and discussed in units of milligrams per kilogram (mg/kg). The laboratory test results from this investigation are discussed below and were comparted to the anticipated background concentrations used by regulatory agencies for arsenic at concentrations up to 11.0 mg/kg.

5.2.1 Soil Results

Arsenic was detected in all of the additional soil samples collected at concentrations ranging from 5.1 to 57 mg/kg. All arsenic detections are above the ESL for residential use of 0.067 mg/kg. However, many of the detected concentrations are within naturally occurring background levels of 0.6-11.0 mg/kg used by California regulatory agencies as cleanup standards with the exception of the samples collected from borings as discussed below.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results from the June and July sampling events, the shallow soil along the western property boundary adjacent to the railroad tracks is impacted with arsenic above regulatory screening levels. The arsenic-impacted soil in the vicinity of HA-1 has not been defined vertically given the concentration of 57 mg/kg reported at a depth of 5-feet bgs in HA-1. However, the impact laterally has been defined to the east and south by borings HA-1B and HA-1C, and by the property line to the west. Given the borings completed to date, the volume of soil with arsenic concentrations exceeding naturally-occurring regional background levels at boring location HA-1 is estimated at about 50 cubic yards, based on the reasonable assumption that the vertical limits are less than six (6) feet and the northern limits not defined to date are less than 10 feet from boring HA-1.

The arsenic-impacted soil in the vicinity of HA-2 has been defined vertically to less than 3 feet in depth by the sample collected at 3 feet at 6.7 mg/kg. The impact laterally has been defined to the north and south by borings HA-1A and HA-1C, and by the property line to the west. The limits to the east into the property have not been defined at depths less than 1 foot by boring HA-2B. Given the borings completed to date, the volume at boring location HA-2 is estimated at about 30 cubic yards, based on the reasonable assumption that the vertical limits are less than three (3) feet and the eastern limits, which are not currently defined to date, are less than 10 feet from boring HA-2.

The arsenic-impacted soil in the vicinity of HA-3 has been defined vertically to less than 4 feet in depth by the sample collected at 4 feet at 7.5 mg/kg. The impact laterally has been defined in all directions by borings HA-3A, HA-3B, and HA-3C and the western property line. Given the borings completed to date, the volume at boring location HA-3 is estimated at about 25 cubic yards, based on the reasonable assumption that the vertical limits are less than four (4) feet.

Based on the assessment completed to date, the estimated volume of arsenic impacted soil along the western property line in common with the rail line is estimated at 105 cubic yards of soil. Given that the lateral limits are not completely defined, it is recommended that a contingency be applied to this volume to account for these unknowns. Stantec is recommending a 50 percent contingency be applied to bring the estimated total to approximately 160 cubic yards of soil that will require removal from the Property.

Stantec would consider this volume of soil to be a *de minimis* volume and condition that would not warrant regulatory oversight. It would be recommended that this soil be excavated, removed from the Site, and verification soil samples collected from each of the three excavations at borings HA-1, HA-2, and HA-3 to confirm removal of the arsenic to the proposed cleanup level of 11.0 mg/kg. Based on the collected soil data the soil should not be classified as a California hazardous waste.



7.0 LIMITATIONS

The conclusions presented in this report are professional opinions based on data described in this report. The opinions of this report have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and are subject to the following inherent limitations. Stantec makes no other warranty, either expressed or implied, concerning the conclusions and professional advice that is contained within the body of this report.

Inherent in most projects performed in a heterogeneous subsurface environment, continuing excavation and assessments may reveal findings that are different than those presented herein. This facet of the environmental profession should be considered when formulating professional opinions on the limited data collected on these projects.

This report has been issued with the clear understanding that it is the responsibility of the owner, or their representative, to make appropriate notifications to regulatory agencies. It is specifically not the responsibility of Stantec to conduct appropriate notifications as specified by current County and State regulations.

The information presented in this report is valid as of the date our exploration was performed. Site conditions may degrade with time; consequently, the findings presented herein are subject to change.

TABLE

Table 1
Summary of Soil Analytical Results - Lead/Arsenic
18545 - 18565 Monterey Street
Morgan Hill, California
Stantec Project Number: 185805226

Sample ID	Sample Depth (feet)	Sample Date	Arsenic and Lead by 6010B	
			Arsenic	Lead
ESL (Residential)			***0.067***	***32***
DTSC HERO Note 3 (Residential)			***0.41***	***80***
California Background Levels [(2)]			***0.6 - 11***	***NE***
HA-1-1	1.0	6/23/21	**23**	**1.9**
HA-1-2	2.0	6/23/21	**18**	**1.8**
HA-1-3	3.0	6/23/21	**64**	**7.9**
HA-1-4	4.0	7/13/21	**6.8**	NA
HA-1-5	5.0	7/13/21	**57**	NA
HA-1A-1	1.0	7/13/21	**28**	NA
HA-1A-2	2.0	7/13/21	**14**	NA
HA-1A-3	3.0	7/13/21	**6.8**	NA
HA-1A-4	4.0	7/13/21	**8.2**	NA
HA-1A-5	5.0	7/13/21	**8.5**	NA
HA-1B-1	1.0	7/13/21	**7.6**	NA
HA-1B-2	2.0	7/13/21	**8.8**	NA
HA-1B-3	3.0	7/13/21	**7.7**	NA
HA-1B-4	4.0	7/13/21	**8.4**	NA
HA-1B-5	5.0	7/13/21	**8.9***	NA
HA-1C-1	1.0	7/13/21	**13**	NA
HA-1C-2	2.0	7/13/21	**8.5**	NA
HA-1C-3	3.0	7/13/21	**8.1**	NA
HA-1C-4	4.0	7/13/21	**7.8**	NA
HA-1C-5	5.0	7/13/21	**8.0**	NA
HA-2-1	1.0	6/23/21	**19**	**17**
HA-2-2	2.0	6/23/21	**14**	**14**
HA-2-3	3.0	6/23/21	**6.7**	**7.0**
HA-2A-1	1.0	7/13/21	**7.5**	NA
HA-2A-2	2.0	7/13/21	**8.0**	NA
HA-2B-1	1.0	7/13/21	**13**	NA
HA-2B-2	2.0	7/13/21	**7.4**	NA
HA-2C-1	1.0	7/13/21	**8.2**	NA
HA-2C-2	2.0	7/13/21	**8.2**	NA
HA-3-1	1.0	6/23/21	**28**	**13**
HA-3-2	2.0	6/23/21	**26**	**18**
HA-3-3	3.0	6/23/21	**22**	**17**
HA-3-4	4.0	7/13/21	**7.5**	NA
HA-3-5	5.0	7/13/21	**8.1**	NA
HA-3A-1	1.0	7/13/21	**5.1**	NA
HA-3A-2	2.0	7/13/21	**7.7**	NA
HA-3A-3	3.0	7/13/21	**7.4**	NA
HA-3A-4	4.0	7/13/21	**6.8**	NA
HA-3A-5	5.0	7/13/21	**8.1**	NA
HA-3B-1	1.0	7/13/21	**5.6**	NA
HA-3B-2	2.0	7/13/21	**7.4**	NA
HA-3B-3	3.0	7/13/21	**8.0**	NA
HA-3B-4	4.0	7/13/21	**7.1**	NA
HA-3B-5	5.0	7/13/21	**8.7**	NA
HA-3C-1	1.0	7/13/21	**6.8**	NA
HA-3C-2	2.0	7/13/21	**5.9**	NA
HA-3C-3	3.0	7/13/21	**8.0**	NA
HA-3C-4	4.0	7/13/21	**8.3**	NA
HA-3C-5	5.0	7/13/21	**8.8**	NA
HA-4-1	1.0	6/23/21	**5.9**	**9.5**
HA-4-2	2.0	6/23/21	NA	NA
HA-4-3	3.0	6/23/21	NA	NA

Notes:

All concentrations reported in milligrams per kilogram (mg/kg).

(1) - More conservative screening level between USEPA Region 9 RSL (May, 2020) and DTSC HERO Note 3 (June, 2020)

(2) - Kearny Foundation Special Report on Background Concentrations of Trace and Major Elements in California Soils (UCR, 1996).

SFRWQCB ESL - San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (July 2019)

DTSC - Department of Toxic Substance Control

HERO HHRA - Human and Ecological Risk Office Human Health Risk Assessment

NA - Not Analyzed

ND - Not Detected Above Practical Quantitation Limit

NE - Not Established

RSL - Regional Screening Level

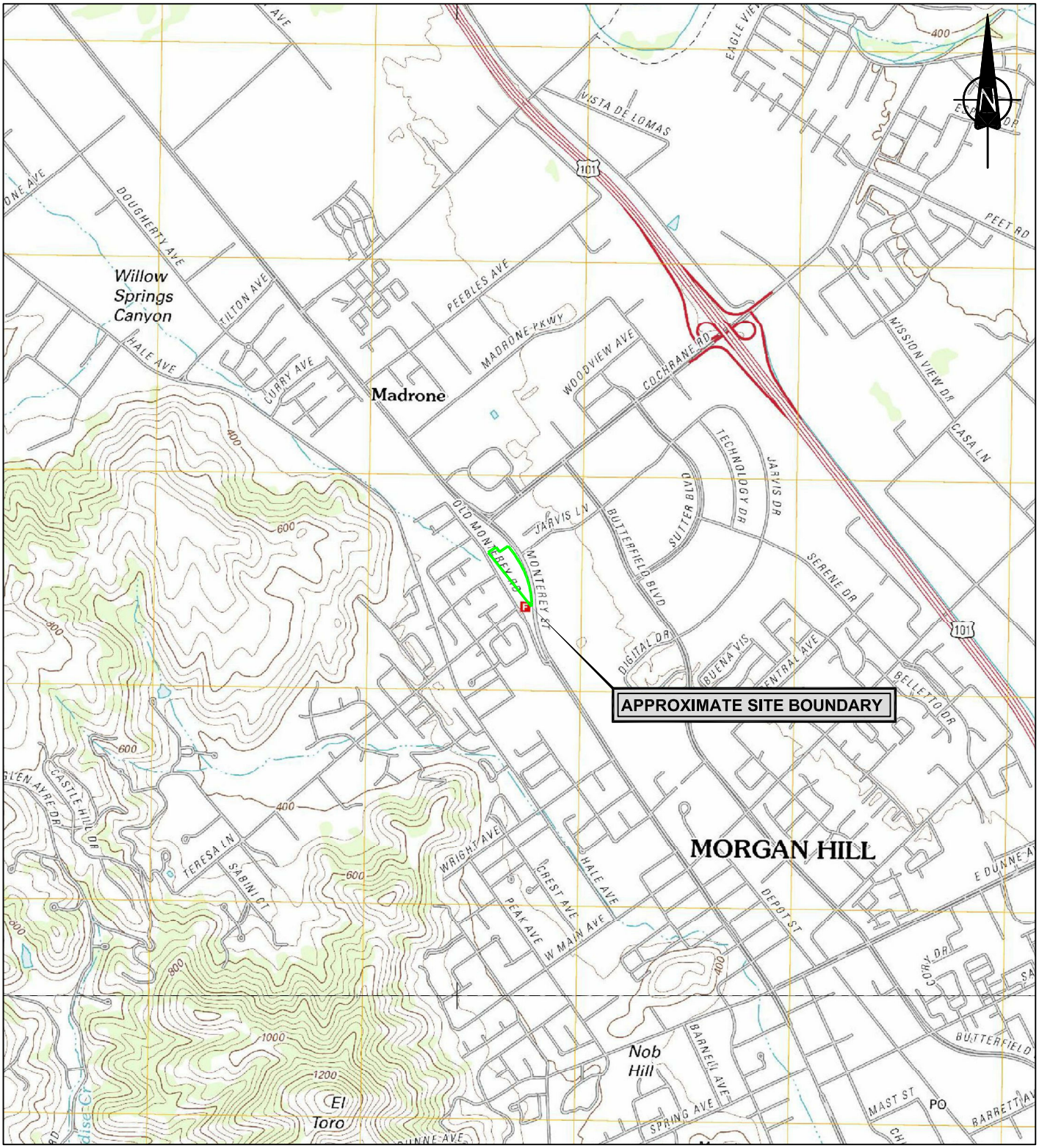
USEPA - United States Environmental Protection Agency

BOLD Denotes analyte was detected above the practical quantitation limit

< - Denotes analyte was not detected above the practical quantitation limit

Yellow shading indicates value above the residential screening levels

FIGURES



NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC SERVICES INC. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

PROPERTY LOCATION MAP

PHASE I ESA

18545 AND 18565 MONTEREY STREET, MORGAN HILL, CA 95037

Client: CITY VENTURES

Project No.:	185805226
Scale:	AS SHOWN
Date:	21/06/18
Dwn. By:	CD VM SC2021060031
App'd By:	KE

Fig. No.: 1

Stantec

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0 100 200 300 FT

SCALE : AS SHOWN

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

PROPERTY DETAILS

PHASE I ESA

18545 AND 18565 MONTEREY STREET, MORGAN HILL, CA 95037

Client: CITY VENTURES

Project No.:	185805226
Scale:	AS SHOWN
Date:	21/06/18
Dwn. By:	CD VM SC2021060032
App'd By:	KE

Fig. No.: 2

Stantec

APPENDIX A

Laboratory Data Sheets

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-76098-1
Client Project/Site: 185805226

For:
Stantec Consulting Corp.
75 East Santa Clara
Suite 1225
San Jose, California 95113

Attn: Jaylen Gregory

Authorized for release by:
7/15/2021 5:34:17 PM

Afsaneh Salimpour, Senior Project Manager
(925)484-1919
Afsaneh.Salimpour@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 320-76098-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-76098-1

Comments
No additional comments.

Receipt
The samples were received on 7/13/2021 1:18 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 27.7º C.

Metals
Method 6010B: The matrix spike (MS) recoveries for preparation batch 320-506428 and analytical batch 320-506809 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Client Sample ID: HA-1-4 — Lab Sample ID: 320-76098-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.8		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1-5 — Lab Sample ID: 320-76098-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	57		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1A-1 — Lab Sample ID: 320-76098-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	28		2.1		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1A-2 — Lab Sample ID: 320-76098-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	14		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1A-3 — Lab Sample ID: 320-76098-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.8		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1A-4 — Lab Sample ID: 320-76098-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.2		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1A-5 — Lab Sample ID: 320-76098-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.5		2.1		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1B-1 — Lab Sample ID: 320-76098-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.6		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1B-2 — Lab Sample ID: 320-76098-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.8		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1B-3 — Lab Sample ID: 320-76098-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.7		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1B-4 — Lab Sample ID: 320-76098-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.4		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1B-5 — Lab Sample ID: 320-76098-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.9	F1	2.0		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Client Sample ID: HA-1C-1 — Lab Sample ID: 320-76098-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	13		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1C-2 — Lab Sample ID: 320-76098-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.5		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1C-3 — Lab Sample ID: 320-76098-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.1		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1C-4 — Lab Sample ID: 320-76098-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.8		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-1C-5 — Lab Sample ID: 320-76098-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.0		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-2A-1 — Lab Sample ID: 320-76098-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.5		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-2A-2 — Lab Sample ID: 320-76098-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.0		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-2B-1 — Lab Sample ID: 320-76098-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	13		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-2B-2 — Lab Sample ID: 320-76098-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.4		2.1		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HA-1-4 — **Lab Sample ID: 320-76098-1**
Date Collected: 07/13/21 08:55 — Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		1.9		mg/Kg		07/14/21 07:00	07/14/21 14:46	1

Client Sample ID: HA-1-5 — **Lab Sample ID: 320-76098-2**
Date Collected: 07/13/21 09:15 — Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	57		1.9		mg/Kg		07/14/21 07:00	07/14/21 15:13	1

Client Sample ID: HA-1A-1 — **Lab Sample ID: 320-76098-3**
Date Collected: 07/13/21 09:25 — Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	28		2.1		mg/Kg		07/14/21 07:00	07/14/21 15:16	1

Client Sample ID: HA-1A-2 — **Lab Sample ID: 320-76098-4**
Date Collected: 07/13/21 09:30 — Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		2.0		mg/Kg		07/14/21 07:00	07/14/21 15:20	1

Client Sample ID: HA-1A-3 — **Lab Sample ID: 320-76098-5**
Date Collected: 07/13/21 09:45 — Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		1.9		mg/Kg		07/14/21 07:00	07/14/21 15:24	1

Client Sample ID: HA-1A-4 — **Lab Sample ID: 320-76098-6**
Date Collected: 07/13/21 09:55 — Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.2		1.9		mg/Kg		07/14/21 07:00	07/14/21 15:28	1

Client Sample ID: HA-1A-5 — **Lab Sample ID: 320-76098-7**
Date Collected: 07/13/21 10:00 — Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.5		2.1		mg/Kg		07/14/21 07:00	07/14/21 15:32	1

Client Sample ID: HA-1B-1 — **Lab Sample ID: 320-76098-8**
Date Collected: 07/13/21 10:10 — **Matrix: Solid**
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		2.0		mg/Kg		07/14/21 07:00	07/14/21 15:35	1

Client Sample ID: HA-1B-2 — **Lab Sample ID: 320-76098-9**
Date Collected: 07/13/21 10:15 — **Matrix: Solid**
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.8		1.9		mg/Kg		07/14/21 07:00	07/14/21 15:39	1

Client Sample ID: HA-1B-3 — **Lab Sample ID: 320-76098-10**
Date Collected: 07/13/21 10:20 — **Matrix: Solid**
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.7		2.0		mg/Kg		07/14/21 07:00	07/14/21 15:51	1

Client Sample ID: HA-1B-4 — **Lab Sample ID: 320-76098-11**
Date Collected: 07/13/21 10:30 — **Matrix: Solid**
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.4		2.0		mg/Kg		07/14/21 07:00	07/14/21 15:54	1

Client Sample ID: HA-1B-5 — **Lab Sample ID: 320-76098-12**
Date Collected: 07/13/21 10:40 — **Matrix: Solid**
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9	F1	2.0		mg/Kg		07/14/21 07:00	07/14/21 15:58	1

Client Sample ID: HA-1C-1 — **Lab Sample ID: 320-76098-13**
Date Collected: 07/13/21 10:55 — **Matrix: Solid**
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		1.9		mg/Kg		07/14/21 07:00	07/14/21 16:17	1

Client Sample ID: HA-1C-2 — **Lab Sample ID: 320-76098-14**
Date Collected: 07/13/21 11:05 — **Matrix: Solid**
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.5		1.9		mg/Kg		07/14/21 07:00	07/14/21 16:21	1

Client Sample ID: HA-1C-3
Lab Sample ID: 320-76098-15
Date Collected: 07/13/21 11:10
Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.1		1.9		mg/Kg		07/14/21 07:00	07/14/21 16:24	1

Client Sample ID: HA-1C-4
Lab Sample ID: 320-76098-16
Date Collected: 07/13/21 11:15
Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.8		2.0		mg/Kg		07/14/21 07:00	07/14/21 16:36	1

Client Sample ID: HA-1C-5
Lab Sample ID: 320-76098-17
Date Collected: 07/13/21 11:20
Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.0		2.0		mg/Kg		07/14/21 07:00	07/14/21 16:40	1

Client Sample ID: HA-2A-1
Lab Sample ID: 320-76098-18
Date Collected: 07/13/21 11:35
Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.5		2.0		mg/Kg		07/14/21 07:00	07/14/21 16:43	1

Client Sample ID: HA-2A-2
Lab Sample ID: 320-76098-19
Date Collected: 07/13/21 11:40
Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.0		2.0		mg/Kg		07/14/21 07:00	07/14/21 16:47	1

Client Sample ID: HA-2B-1
Lab Sample ID: 320-76098-20
Date Collected: 07/13/21 11:50
Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		1.9		mg/Kg		07/14/21 07:00	07/14/21 16:51	1

Client Sample ID: HA-2B-2
Lab Sample ID: 320-76098-21
Date Collected: 07/13/21 11:55
Matrix: Solid
Date Received: 07/13/21 13:18

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		2.1		mg/Kg		07/14/21 07:00	07/14/21 16:55	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-506427/1-A
Matrix: Solid
Analysis Batch: 506809

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506427

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		07/14/21 07:00	07/14/21 14:31	1

Lab Sample ID: LCS 320-506427/2-A
Matrix: Solid
Analysis Batch: 506809

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506427

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	46.2		mg/Kg		92	80 - 120

Lab Sample ID: 320-76098-1 MS
Matrix: Solid
Analysis Batch: 506809

Client Sample ID: HA-1-4
Prep Type: Total/NA
Prep Batch: 506427

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	6.8		48.5	45.7		mg/Kg		80	80 - 120

Lab Sample ID: 320-76098-1 MSD
Matrix: Solid
Analysis Batch: 506809

Client Sample ID: HA-1-4
Prep Type: Total/NA
Prep Batch: 506427

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	6.8		49.5	47.3		mg/Kg		82	80 - 120	3	35

Lab Sample ID: MB 320-506428/1-A
Matrix: Solid
Analysis Batch: 506809

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506428

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		07/14/21 07:00	07/14/21 14:39	1

Lab Sample ID: LCS 320-506428/2-A
Matrix: Solid
Analysis Batch: 506809

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506428

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	45.7		mg/Kg		91	80 - 120

Lab Sample ID: 320-76098-12 MS
Matrix: Solid
Analysis Batch: 506809

Client Sample ID: HA-1B-5
Prep Type: Total/NA
Prep Batch: 506428

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	8.9	F1	49.5	48.0	F1	mg/Kg		79	80 - 120

Lab Sample ID: 320-76098-12 MSD
Matrix: Solid
Analysis Batch: 506809

Client Sample ID: HA-1B-5
Prep Type: Total/NA
Prep Batch: 506428

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	8.9	F1	47.6	46.8		mg/Kg		80	80 - 120	3	35

Metals

Prep Batch: 506427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76098-1	HA-1-4	Total/NA	Solid	3050B	
320-76098-2	HA-1-5	Total/NA	Solid	3050B	
320-76098-3	HA-1A-1	Total/NA	Solid	3050B	
320-76098-4	HA-1A-2	Total/NA	Solid	3050B	
320-76098-5	HA-1A-3	Total/NA	Solid	3050B	
320-76098-6	HA-1A-4	Total/NA	Solid	3050B	
320-76098-7	HA-1A-5	Total/NA	Solid	3050B	
320-76098-8	HA-1B-1	Total/NA	Solid	3050B	
320-76098-9	HA-1B-2	Total/NA	Solid	3050B	
320-76098-10	HA-1B-3	Total/NA	Solid	3050B	
320-76098-11	HA-1B-4	Total/NA	Solid	3050B	
MB 320-506427/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-506427/2-A	Lab Control Sample	Total/NA	Solid	3050B	
320-76098-1 MS	HA-1-4	Total/NA	Solid	3050B	
320-76098-1 MSD	HA-1-4	Total/NA	Solid	3050B	

Prep Batch: 506428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76098-12	HA-1B-5	Total/NA	Solid	3050B	
320-76098-13	HA-1C-1	Total/NA	Solid	3050B	
320-76098-14	HA-1C-2	Total/NA	Solid	3050B	
320-76098-15	HA-1C-3	Total/NA	Solid	3050B	
320-76098-16	HA-1C-4	Total/NA	Solid	3050B	
320-76098-17	HA-1C-5	Total/NA	Solid	3050B	
320-76098-18	HA-2A-1	Total/NA	Solid	3050B	
320-76098-19	HA-2A-2	Total/NA	Solid	3050B	
320-76098-20	HA-2B-1	Total/NA	Solid	3050B	
320-76098-21	HA-2B-2	Total/NA	Solid	3050B	
MB 320-506428/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-506428/2-A	Lab Control Sample	Total/NA	Solid	3050B	
320-76098-12 MS	HA-1B-5	Total/NA	Solid	3050B	
320-76098-12 MSD	HA-1B-5	Total/NA	Solid	3050B	

Analysis Batch: 506809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76098-1	HA-1-4	Total/NA	Solid	6010B	506427
320-76098-2	HA-1-5	Total/NA	Solid	6010B	506427
320-76098-3	HA-1A-1	Total/NA	Solid	6010B	506427
320-76098-4	HA-1A-2	Total/NA	Solid	6010B	506427
320-76098-5	HA-1A-3	Total/NA	Solid	6010B	506427
320-76098-6	HA-1A-4	Total/NA	Solid	6010B	506427
320-76098-7	HA-1A-5	Total/NA	Solid	6010B	506427
320-76098-8	HA-1B-1	Total/NA	Solid	6010B	506427
320-76098-9	HA-1B-2	Total/NA	Solid	6010B	506427
320-76098-10	HA-1B-3	Total/NA	Solid	6010B	506427
320-76098-11	HA-1B-4	Total/NA	Solid	6010B	506427
320-76098-12	HA-1B-5	Total/NA	Solid	6010B	506428
320-76098-13	HA-1C-1	Total/NA	Solid	6010B	506428
320-76098-14	HA-1C-2	Total/NA	Solid	6010B	506428
320-76098-15	HA-1C-3	Total/NA	Solid	6010B	506428
320-76098-16	HA-1C-4	Total/NA	Solid	6010B	506428

Metals (Continued)

Analysis Batch: 506809 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76098-17	HA-1C-5	Total/NA	Solid	6010B	506428
320-76098-18	HA-2A-1	Total/NA	Solid	6010B	506428
320-76098-19	HA-2A-2	Total/NA	Solid	6010B	506428
320-76098-20	HA-2B-1	Total/NA	Solid	6010B	506428
320-76098-21	HA-2B-2	Total/NA	Solid	6010B	506428
MB 320-506427/1-A	Method Blank	Total/NA	Solid	6010B	506427
MB 320-506428/1-A	Method Blank	Total/NA	Solid	6010B	506428
LCS 320-506427/2-A	Lab Control Sample	Total/NA	Solid	6010B	506427
LCS 320-506428/2-A	Lab Control Sample	Total/NA	Solid	6010B	506428
320-76098-1 MS	HA-1-4	Total/NA	Solid	6010B	506427
320-76098-1 MSD	HA-1-4	Total/NA	Solid	6010B	506427
320-76098-12 MS	HA-1B-5	Total/NA	Solid	6010B	506428
320-76098-12 MSD	HA-1B-5	Total/NA	Solid	6010B	506428

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Client Sample ID: HA-1-4
Date Collected: 07/13/21 08:55
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 14:46	GSH	TAL SAC

Client Sample ID: HA-1-5
Date Collected: 07/13/21 09:15
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:13	GSH	TAL SAC

Client Sample ID: HA-1A-1
Date Collected: 07/13/21 09:25
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.96 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:16	GSH	TAL SAC

Client Sample ID: HA-1A-2
Date Collected: 07/13/21 09:30
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.99 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:20	GSH	TAL SAC

Client Sample ID: HA-1A-3
Date Collected: 07/13/21 09:45
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:24	GSH	TAL SAC

Client Sample ID: HA-1A-4
Date Collected: 07/13/21 09:55
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:28	GSH	TAL SAC

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Client Sample ID: HA-1A-5
Date Collected: 07/13/21 10:00
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.95 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:32	GSH	TAL SAC

Client Sample ID: HA-1B-1
Date Collected: 07/13/21 10:10
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:35	GSH	TAL SAC

Client Sample ID: HA-1B-2
Date Collected: 07/13/21 10:15
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:39	GSH	TAL SAC

Client Sample ID: HA-1B-3
Date Collected: 07/13/21 10:20
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:51	GSH	TAL SAC

Client Sample ID: HA-1B-4
Date Collected: 07/13/21 10:30
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.99 g	100 mL	506427	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:54	GSH	TAL SAC

Client Sample ID: HA-1B-5
Date Collected: 07/13/21 10:40
Date Received: 07/13/21 13:18

Lab Sample ID: 320-76098-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.98 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 15:58	GSH	TAL SAC

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Client Sample ID: HA-1C-1
Lab Sample ID: 320-76098-13
Date Collected: 07/13/21 10:55
Matrix: Solid
Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:17	GSH	TAL SAC

Client Sample ID: HA-1C-2
Lab Sample ID: 320-76098-14
Date Collected: 07/13/21 11:05
Matrix: Solid
Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:21	GSH	TAL SAC

Client Sample ID: HA-1C-3
Lab Sample ID: 320-76098-15
Date Collected: 07/13/21 11:10
Matrix: Solid
Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:24	GSH	TAL SAC

Client Sample ID: HA-1C-4
Lab Sample ID: 320-76098-16
Date Collected: 07/13/21 11:15
Matrix: Solid
Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.99 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:36	GSH	TAL SAC

Client Sample ID: HA-1C-5
Lab Sample ID: 320-76098-17
Date Collected: 07/13/21 11:20
Matrix: Solid
Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:40	GSH	TAL SAC

Client Sample ID: HA-2A-1
Lab Sample ID: 320-76098-18
Date Collected: 07/13/21 11:35
Matrix: Solid
Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:43	GSH	TAL SAC

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Client Sample ID: HA-2A-2

Lab Sample ID: 320-76098-19

Date Collected: 07/13/21 11:40

Matrix: Solid

Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:47	GSH	TAL SAC

Client Sample ID: HA-2B-1

Lab Sample ID: 320-76098-20

Date Collected: 07/13/21 11:50

Matrix: Solid

Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:51	GSH	TAL SAC

Client Sample ID: HA-2B-2

Lab Sample ID: 320-76098-21

Date Collected: 07/13/21 11:55

Matrix: Solid

Date Received: 07/13/21 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.97 g	100 mL	506428	07/14/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			506809	07/14/21 16:55	GSH	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2897	01-31-22

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-76098-1	HA-1-4	Solid	07/13/21 08:55	07/13/21 13:18	
320-76098-2	HA-1-5	Solid	07/13/21 09:15	07/13/21 13:18	
320-76098-3	HA-1A-1	Solid	07/13/21 09:25	07/13/21 13:18	
320-76098-4	HA-1A-2	Solid	07/13/21 09:30	07/13/21 13:18	
320-76098-5	HA-1A-3	Solid	07/13/21 09:45	07/13/21 13:18	
320-76098-6	HA-1A-4	Solid	07/13/21 09:55	07/13/21 13:18	
320-76098-7	HA-1A-5	Solid	07/13/21 10:00	07/13/21 13:18	
320-76098-8	HA-1B-1	Solid	07/13/21 10:10	07/13/21 13:18	
320-76098-9	HA-1B-2	Solid	07/13/21 10:15	07/13/21 13:18	
320-76098-10	HA-1B-3	Solid	07/13/21 10:20	07/13/21 13:18	
320-76098-11	HA-1B-4	Solid	07/13/21 10:30	07/13/21 13:18	
320-76098-12	HA-1B-5	Solid	07/13/21 10:40	07/13/21 13:18	
320-76098-13	HA-1C-1	Solid	07/13/21 10:55	07/13/21 13:18	
320-76098-14	HA-1C-2	Solid	07/13/21 11:05	07/13/21 13:18	
320-76098-15	HA-1C-3	Solid	07/13/21 11:10	07/13/21 13:18	
320-76098-16	HA-1C-4	Solid	07/13/21 11:15	07/13/21 13:18	
320-76098-17	HA-1C-5	Solid	07/13/21 11:20	07/13/21 13:18	
320-76098-18	HA-2A-1	Solid	07/13/21 11:35	07/13/21 13:18	
320-76098-19	HA-2A-2	Solid	07/13/21 11:40	07/13/21 13:18	
320-76098-20	HA-2B-1	Solid	07/13/21 11:50	07/13/21 13:18	
320-76098-21	HA-2B-2	Solid	07/13/21 11:55	07/13/21 13:18	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

320-76098

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone. (925) 484-1919 • Fax: (925) 600-3002

Reference #: 200219

Date 7/13/21 Page 1 of 3

Report To

Attn:
Company: Stantec
Address: 75 E. Santa Clara St. Suite 1225
Email: Alicia.Jansen@Stantec.com
Bill To:
Sampled By: J. Allen, C
Attn
Phone: 408 224 0916

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	Semi Volatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ___ ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B
HA-1-4	7/13/21	0855	S	None																			X
HA-1-5		0915																					X
HA-1a-1		0925																					X
HA-1a-2		0930																					X
HA-1a-3		0945																					X
HA-1a-4		0955																					X
HA-1a-5		1000																					X
HA-1b-1		1010																					X
HA-1b-2		1015																					X
HA-1b-3		1020																					X

RUSH!

320-76098 Chai of Custody

Project Info.

Project Name/ #: 185805226
PO#:
Credit Card Y/N
If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp: 24°C

TAT	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Other
						(1 Day)	

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments. ☐ Global ID ___

See Terms and Conditions on reverse

7/15/2021

1) Relinquished by	Time	2) Relinquished by	Time		Time
Signature	1318	Signature		Signature	
Printed Name: J. Allen, C	Date: 7/13/21	Printed Name	Date	Printed Name	Date
Company		Company		Company	

1) Received by	Time	2) Received by	Time	3) Received by	Time
Signature	1318	Signature		Signature	
Printed Name: Mullen	Date: 7-13-21	Printed Name	Date	Printed Name	Date
Company: EFA SJ		Company		Company	

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14 13 12 11 10 9 8 7 6 5 4 3 2 1

320-76098

TestAmerica

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TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 200219

Date 7/13/21 Page 2 of 3

Report To

Attn:
Company:
Address:
Email:
Bill To:
Sampled By:
Attn.
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B
HA-1b-4	7/13/21	1030	S	None																		X
HA-1b-5		1040																				X
HA-1c-1		1055																				X
HA-1c-2		1105																				X
HA-1c-3		1110																				X
HA-1c-4		1115																				X
HA-1c-5		1120																				X
HA-2a-1		1135																				X
HA-2a-2	↓	1140	↓	↓																		X

RUSH!!

Page 21 of 30

Project Info.

Project Name/ #: 185805226
PO#:
Credit Card Y/N: If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp:

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | (1 Day) | Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments. ☐ Global ID

See Terms and Conditions on reverse

7/15/2021

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: [signature] Time: 1318	Signature: Time:	Signature: Time:
Printed Name: Jaylen Li Date: 7/13/21	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

1) Received by	2) Received by	3) Received by
Signature: [signature] Time: 1318	Signature: Time:	Signature: Time:
Printed Name: Mullen Date: 7/13/21	Printed Name: Date:	Printed Name: Date:
Company: EAST	Company:	Company:

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320-76098

Pleasanton Chain of Custody
1220 Quarry Lane ● Pleasanton CA 94566-4756
Phone (925) 484-1919 ● Fax: (925) 600-3002

Reference #: 200219

Date 7/13/21 Page 3 of 3

Report To

Attn:
Company:
Address:
Email:
Bill To: | Sampled By:
Attn. | Phone:

Analysis Request

Sample ID	Date	Time	Mat rix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	Semi Volatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W E T (STLC) ☐ W E T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B		Number of Containers
Hm-2b-1	7/13/21	1150	S	None																				X		
Hm-2b-2	↓	1155	↓	↓																				X		

RUSH

Page 22 of 30

Project Info.

Project Name/ #: 1658005226
PO#:
Credit Card Y/N:

Sample Receipt

of Containers:
Head Space:
Temp:
If yes, please call with payment information ASAP

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | (1 Day) | Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments. ☐ Global ID ___

See Terms and Conditions on reverse

7/15/2021

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: [illegible] Time: 1316	Signature: Time:	Signature: Time:
Printed Name: J. Allen G Date: 7/13/21	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [illegible] Time: 1318	Signature: Time:	Signature: Time:
Printed Name: K Mullen Date: 7-13-21	Printed Name: Date:	Printed Name: Date:
Company: BTAS	Company:	Company:

TestAmerica
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320-76098

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 200219

Date 7/13/21 Page 1 of 3

Report To

Attn:
Company: Stantec
Address: 75 E. Santa Clara St. Suite 1225
Email: Alicia.Jansen@Stantec.com
Bill To.
Sampled By: Jaden.G
Attn.
Phone: 408 221 0916

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	Semi-Volatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010
HA-1-4	7/13/21	0855	S	None																		X
HA-1-5		0915																				X
HA-1a-1		0925																				X
HA-1a-2		0930																				X
HA-1a-3		0945																				X
HA-1a-4		0955																				X
HA-1a-5		1000																				X
HA-1b-1		1010																				X
HA-1b-2		1015																				X
HA-1b-3		1020																				X

RUSH!

320-76098 Chain of Custody

Project Info.

Project Name/ #: 185805226
PO#:
Credit Card Y/N
If yes, please call with payment information ASAP

Sample Receipt

of Containers.
Head Space:
Temp: 2.4°C

TAT	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Other
						(1 Day)	

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments. ☐ Global ID _____

See Terms and Conditions on reverse

7/15/2021

1) Relinquished by	Time	2) Relinquished by	Time		Time
Signature	1318	Signature		Signature	
Printed Name: Jaden.G	Date: 7/13/21	Printed Name	Date	Printed Name	Date
Company		Company		Company	

1) Received by	Time	2) Received by	Time	3) Received by	Time
Signature	1318	Signature		Signature	
Printed Name: Mullen	Date: 7-13-21	Printed Name	Date	Printed Name	Date
Company: ETA SJ		Company		Company	

Rev 10/2

320-76098

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone (925) 484-1919 • Fax: (925) 600-3002

Reference #: 200219

Date 7/13/21 Page 2 of 3

Report To

Attn.
Company
Address
Email.
Bill To.
Sampled By
Attn.
Phone.

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐200.7 ☐ Lead ☐ LUFT ☐RCRA ☐ Other	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B
HA-1b-4	7/13/21	1030	S	None																			X
HA-1b-5		1040																					X
HA-1c-1		1055																					X
HA-1c-2		1105																					X
HA-1c-3		1110																					X
HA-1c-4		1115																					X
HA-1c-5		1120																					X
HA-2a-1		1135																					X
HA-2a-2		1140																					X

RUSH

Page 24 of 30

Project Info.

Project Name/ #: 185805226
PO#:
Credit Card Y/N
If yes, please call with payment information ASAP

Sample Receipt

of Containers.
Head Space:
Temp:

TAT	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Other
						(1 Day)	

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse

7/15/2021

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: [signature] Time: 1318	Signature: Time:	Signature: Time:
Printed Name: Jaylen G Date: 7/13/21	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

1) Received by	2) Received by	3) Received by
Signature: [signature] Time: 1318	Signature: Time:	Signature: Time:
Printed Name: Mullen Date: 7/13/21	Printed Name: Date:	Printed Name: Date:
Company: EAST	Company:	Company:

Rev 10/2

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720-76098

Pleasanton Chain of Custody
1220 Quarry Lane ● Pleasanton CA 94566-4756
Phone (925) 484-1919 ● Fax: (925) 600-3002

Reference #: 200219

Date 7/13/21 Page 3 of 3

Report To

Attn:
Company:
Address:
Email:
Bill To: | Sampled By:
Attn: | Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B		Number of Containers
Ha-2b-1	7/13/21	1150	S	None																			X			1
Ha-2b-2	↓	1155	↓	↓																			X			1

RUSH

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Project Info.

Project Name/ #: 1858052226
PO#:
Credit Card Y/N: If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp:

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | (1 Day) | Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: [signature] Time: 1318	Signature: Time:	Signature: Time:
Printed Name: J. Allen G. Date: 7/13/21	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 1318	Signature: Time:	Signature: Time:
Printed Name: Mullen Date: 7-13-21	Printed Name: Date:	Printed Name: Date:
Company: EA5J	Company:	Company:

7/15/2021

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Salimpour, Afsaneh F	Carrier Tracking No(s):	COC No: 320-232126.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Afsaneh.Salimpour@Eurofinset.com	State of Origin: California	Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 320-76098-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 7/15/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 18580533+	Project #: 32017932			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B (MOD) As	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HA-1-4 (320-76098-1)	7/13/21	08:55 Pacific		Solid			X	1	
HA-1-5 (320-76098-2)	7/13/21	09:15 Pacific		Solid			X	1	
HA-1A-1 (320-76098-3)	7/13/21	09:25 Pacific		Solid			X	1	
HA-1A-2 (320-76098-4)	7/13/21	09:30 Pacific		Solid			X	1	
HA-1A-3 (320-76098-5)	7/13/21	09:45 Pacific		Solid			X	1	
HA-1A-4 (320-76098-6)	7/13/21	09:55 Pacific		Solid			X	1	
HA-1A-5 (320-76098-7)	7/13/21	10:00 Pacific		Solid			X	1	
HA-1B-1 (320-76098-8)	7/13/21	10:10 Pacific		Solid			X	1	
HA-1B-2 (320-76098-9)	7/13/21	10:15 Pacific		Solid			X	1	

RUSH

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7/13/21 1625	EHTSS		7/13/21 1625	DCS
2		7/13/21 2010	DCS		7/13/21 2010	ETASAC
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.7

Ver: 06/08/2021

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Salimpour, Afsaneh F	Carrier Tracking No(s):	COC No: 320-232126.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Afsaneh.Salimpour@Eurofinset.com	State of Origin: California	Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 320-76098-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 7/15/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 18580533+	Project #: 32017932			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B (MOD) As	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HA-1B-3 (320-76098-10)	7/13/21	10:20 Pacific		Solid			X	1	
HA-1B-4 (320-76098-11)	7/13/21	10:30 Pacific		Solid			X	1	
HA-1B-5 (320-76098-12)	7/13/21	10:40 Pacific		Solid			X	1	
HA-1C-1 (320-76098-13)	7/13/21	10:55 Pacific		Solid			X	1	
HA-1C-2 (320-76098-14)	7/13/21	11:05 Pacific		Solid			X	1	
HA-1C-3 (320-76098-15)	7/13/21	11:10 Pacific		Solid			X	1	
HA-1C-4 (320-76098-16)	7/13/21	11:15 Pacific		Solid			X	1	
HA-1C-5 (320-76098-17)	7/13/21	11:20 Pacific		Solid			X	1	
HA-2A-1 (320-76098-18)	7/13/21	11:35 Pacific		Solid			X	1	

RUSH

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	7/13/21 1625	FedEx SJ	Received by:	7/13/21 1625	DCS
Relinquished by:	7/13/21 2010	DCS	Received by:	7/13/21 2010	FEDEX
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Salimpour, Afsaneh F	Carrier Tracking No(s):	COC No: 320-232126.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Afsaneh.Salimpour@Eurofinset.com	State of Origin: California	Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 320-76098-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 7/15/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 18580533+	Project #: 32017932			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B (MOD) As	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HA-2A-2 (320-76098-19)	7/13/21	11:40 Pacific		Solid			X	1	
HA-2B-1 (320-76098-20)	7/13/21	11:50 Pacific		Solid			X	1	
HA-2B-2 (320-76098-21)	7/13/21	11:55 Pacific		Solid			X	1	

PUSH

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7/13/21 1625	TAL SJ		7/13/21 1625	DCS
2		7/13/21 2010	DCS		7/13/21 2010	ETASA
3		Date/Time:	Company		Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 320-76098-1

Login Number: 76098
List Number: 1
Creator: Garcia, Hilario A

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 320-76098-1

Login Number: 76098 **List Source: Eurofins TestAmerica, Sacramento**
List Number: 2
Creator: Guzman, Juan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-76162-1
Client Project/Site: 185805226

For:
Stantec Consulting Corp.
735 E Carnegie Drive
Suite 280
San Bernardino, California 92408

Attn: Ms. Alicia Jansen

Authorized for release by:
7/16/2021 5:42:10 PM

Afsaneh Salimpour, Senior Project Manager
(925)484-1919
Afsaneh.Salimpour@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Job ID: 320-76162-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-76162-1

Comments
No additional comments.

Receipt
The samples were received on 7/14/2021 11:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 23.4º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Client Sample ID: HA-2C-1 — Lab Sample ID: 320-76162-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.2		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-2C-2 — Lab Sample ID: 320-76162-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.2		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3-4 — Lab Sample ID: 320-76162-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.5		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3-5 — Lab Sample ID: 320-76162-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.1		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3A-1 — Lab Sample ID: 320-76162-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.1		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3A-2 — Lab Sample ID: 320-76162-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.7		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3A-3 — Lab Sample ID: 320-76162-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.4		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3A-4 — Lab Sample ID: 320-76162-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.8		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3A-5 — Lab Sample ID: 320-76162-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.1		2.1		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3B-1 — Lab Sample ID: 320-76162-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.6		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3B-2 — Lab Sample ID: 320-76162-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.4		2.1		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3B-3 — Lab Sample ID: 320-76162-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.0		2.0		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Client Sample ID: HA-3B-4 — Lab Sample ID: 320-76162-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.1		1.9		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3B-5 — Lab Sample ID: 320-76162-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.7		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3C-1 — Lab Sample ID: 320-76162-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.8		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3C-2 — Lab Sample ID: 320-76162-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.9		2.1		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3C-3 — Lab Sample ID: 320-76162-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.0		2.0		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3C-4 — Lab Sample ID: 320-76162-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.3		2.1		mg/Kg	1		6010B	Total/NA

Client Sample ID: HA-3C-5 — Lab Sample ID: 320-76162-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.8		2.0		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HA-2C-1
Lab Sample ID: 320-76162-1
Date Collected: 07/14/21 09:00
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.2		1.9		mg/Kg		07/15/21 07:00	07/15/21 16:22	1

Client Sample ID: HA-2C-2
Lab Sample ID: 320-76162-2
Date Collected: 07/14/21 09:05
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.2		2.0		mg/Kg		07/15/21 07:00	07/15/21 16:41	1

Client Sample ID: HA-3-4
Lab Sample ID: 320-76162-3
Date Collected: 07/14/21 09:15
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.5		1.9		mg/Kg		07/15/21 07:00	07/15/21 16:45	1

Client Sample ID: HA-3-5
Lab Sample ID: 320-76162-4
Date Collected: 07/14/21 09:20
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.1		1.9		mg/Kg		07/15/21 07:00	07/15/21 16:49	1

Client Sample ID: HA-3A-1
Lab Sample ID: 320-76162-5
Date Collected: 07/14/21 09:30
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		1.9		mg/Kg		07/15/21 07:00	07/15/21 17:00	1

Client Sample ID: HA-3A-2
Lab Sample ID: 320-76162-6
Date Collected: 07/14/21 09:35
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.7		2.0		mg/Kg		07/15/21 07:00	07/15/21 17:04	1

Client Sample ID: HA-3A-3
Lab Sample ID: 320-76162-7
Date Collected: 07/14/21 09:40
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		1.9		mg/Kg		07/15/21 07:00	07/15/21 17:08	1

Client Sample ID: HA-3A-4 — **Lab Sample ID: 320-76162-8**
Date Collected: 07/14/21 09:45 — **Matrix: Solid**
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		2.0		mg/Kg		07/15/21 07:00	07/15/21 17:12	1

Client Sample ID: HA-3A-5 — **Lab Sample ID: 320-76162-9**
Date Collected: 07/14/21 09:50 — **Matrix: Solid**
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.1		2.1		mg/Kg		07/15/21 07:00	07/15/21 17:15	1

Client Sample ID: HA-3B-1 — **Lab Sample ID: 320-76162-10**
Date Collected: 07/14/21 10:00 — **Matrix: Solid**
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.6		2.0		mg/Kg		07/15/21 07:00	07/15/21 17:19	1

Client Sample ID: HA-3B-2 — **Lab Sample ID: 320-76162-11**
Date Collected: 07/14/21 10:05 — **Matrix: Solid**
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		2.1		mg/Kg		07/15/21 07:00	07/15/21 17:23	1

Client Sample ID: HA-3B-3 — **Lab Sample ID: 320-76162-12**
Date Collected: 07/14/21 10:10 — **Matrix: Solid**
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.0		2.0		mg/Kg		07/15/21 07:00	07/15/21 17:27	1

Client Sample ID: HA-3B-4 — **Lab Sample ID: 320-76162-13**
Date Collected: 07/14/21 10:15 — **Matrix: Solid**
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.1		1.9		mg/Kg		07/15/21 07:00	07/15/21 17:30	1

Client Sample ID: HA-3B-5 — **Lab Sample ID: 320-76162-14**
Date Collected: 07/14/21 10:20 — **Matrix: Solid**
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.7		2.0		mg/Kg		07/15/21 07:00	07/15/21 17:34	1

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Client Sample ID: HA-3C-1
Lab Sample ID: 320-76162-15
Date Collected: 07/14/21 10:30
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		2.0		mg/Kg		07/15/21 07:00	07/15/21 17:46	1

Client Sample ID: HA-3C-2
Lab Sample ID: 320-76162-16
Date Collected: 07/14/21 10:35
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		2.1		mg/Kg		07/15/21 07:00	07/15/21 17:49	1

Client Sample ID: HA-3C-3
Lab Sample ID: 320-76162-17
Date Collected: 07/14/21 10:40
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.0		2.0		mg/Kg		07/15/21 07:00	07/15/21 17:53	1

Client Sample ID: HA-3C-4
Lab Sample ID: 320-76162-18
Date Collected: 07/14/21 10:50
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.3		2.1		mg/Kg		07/15/21 07:00	07/15/21 17:57	1

Client Sample ID: HA-3C-5
Lab Sample ID: 320-76162-19
Date Collected: 07/14/21 10:55
Matrix: Solid
Date Received: 07/14/21 11:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.8		2.0		mg/Kg		07/15/21 07:00	07/15/21 18:01	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-506794/1-A
Matrix: Solid
Analysis Batch: 507244

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		07/15/21 07:00	07/15/21 16:15	1

Lab Sample ID: LCS 320-506794/2-A
Matrix: Solid
Analysis Batch: 507244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506794

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			50.0	46.3		mg/Kg		93	80 - 120		

Lab Sample ID: 320-76162-1 MS
Matrix: Solid
Analysis Batch: 507244

Client Sample ID: HA-2C-1
Prep Type: Total/NA
Prep Batch: 506794

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	8.2		48.5	48.7		mg/Kg		83	80 - 120		

Lab Sample ID: 320-76162-1 MSD
Matrix: Solid
Analysis Batch: 507244

Client Sample ID: HA-2C-1
Prep Type: Total/NA
Prep Batch: 506794

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	8.2		50.5	50.2		mg/Kg		83	80 - 120	3	35

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Metals

Prep Batch: 506794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76162-1	HA-2C-1	Total/NA	Solid	3050B	
320-76162-2	HA-2C-2	Total/NA	Solid	3050B	
320-76162-3	HA-3-4	Total/NA	Solid	3050B	
320-76162-4	HA-3-5	Total/NA	Solid	3050B	
320-76162-5	HA-3A-1	Total/NA	Solid	3050B	
320-76162-6	HA-3A-2	Total/NA	Solid	3050B	
320-76162-7	HA-3A-3	Total/NA	Solid	3050B	
320-76162-8	HA-3A-4	Total/NA	Solid	3050B	
320-76162-9	HA-3A-5	Total/NA	Solid	3050B	
320-76162-10	HA-3B-1	Total/NA	Solid	3050B	
320-76162-11	HA-3B-2	Total/NA	Solid	3050B	
320-76162-12	HA-3B-3	Total/NA	Solid	3050B	
320-76162-13	HA-3B-4	Total/NA	Solid	3050B	
320-76162-14	HA-3B-5	Total/NA	Solid	3050B	
320-76162-15	HA-3C-1	Total/NA	Solid	3050B	
320-76162-16	HA-3C-2	Total/NA	Solid	3050B	
320-76162-17	HA-3C-3	Total/NA	Solid	3050B	
320-76162-18	HA-3C-4	Total/NA	Solid	3050B	
320-76162-19	HA-3C-5	Total/NA	Solid	3050B	
MB 320-506794/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-506794/2-A	Lab Control Sample	Total/NA	Solid	3050B	
320-76162-1 MS	HA-2C-1	Total/NA	Solid	3050B	
320-76162-1 MSD	HA-2C-1	Total/NA	Solid	3050B	

Analysis Batch: 507244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76162-1	HA-2C-1	Total/NA	Solid	6010B	506794
320-76162-2	HA-2C-2	Total/NA	Solid	6010B	506794
320-76162-3	HA-3-4	Total/NA	Solid	6010B	506794
320-76162-4	HA-3-5	Total/NA	Solid	6010B	506794
320-76162-5	HA-3A-1	Total/NA	Solid	6010B	506794
320-76162-6	HA-3A-2	Total/NA	Solid	6010B	506794
320-76162-7	HA-3A-3	Total/NA	Solid	6010B	506794
320-76162-8	HA-3A-4	Total/NA	Solid	6010B	506794
320-76162-9	HA-3A-5	Total/NA	Solid	6010B	506794
320-76162-10	HA-3B-1	Total/NA	Solid	6010B	506794
320-76162-11	HA-3B-2	Total/NA	Solid	6010B	506794
320-76162-12	HA-3B-3	Total/NA	Solid	6010B	506794
320-76162-13	HA-3B-4	Total/NA	Solid	6010B	506794
320-76162-14	HA-3B-5	Total/NA	Solid	6010B	506794
320-76162-15	HA-3C-1	Total/NA	Solid	6010B	506794
320-76162-16	HA-3C-2	Total/NA	Solid	6010B	506794
320-76162-17	HA-3C-3	Total/NA	Solid	6010B	506794
320-76162-18	HA-3C-4	Total/NA	Solid	6010B	506794
320-76162-19	HA-3C-5	Total/NA	Solid	6010B	506794
MB 320-506794/1-A	Method Blank	Total/NA	Solid	6010B	506794
LCS 320-506794/2-A	Lab Control Sample	Total/NA	Solid	6010B	506794
320-76162-1 MS	HA-2C-1	Total/NA	Solid	6010B	506794
320-76162-1 MSD	HA-2C-1	Total/NA	Solid	6010B	506794

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Client Sample ID: HA-2C-1
Date Collected: 07/14/21 09:00
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 16:22	GSH	TAL SAC

Client Sample ID: HA-2C-2
Date Collected: 07/14/21 09:05
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 16:41	GSH	TAL SAC

Client Sample ID: HA-3-4
Date Collected: 07/14/21 09:15
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 16:45	GSH	TAL SAC

Client Sample ID: HA-3-5
Date Collected: 07/14/21 09:20
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 16:49	GSH	TAL SAC

Client Sample ID: HA-3A-1
Date Collected: 07/14/21 09:30
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:00	GSH	TAL SAC

Client Sample ID: HA-3A-2
Date Collected: 07/14/21 09:35
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:04	GSH	TAL SAC

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Client Sample ID: HA-3A-3
Date Collected: 07/14/21 09:40
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:08	GSH	TAL SAC

Client Sample ID: HA-3A-4
Date Collected: 07/14/21 09:45
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.99 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:12	GSH	TAL SAC

Client Sample ID: HA-3A-5
Date Collected: 07/14/21 09:50
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.95 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:15	GSH	TAL SAC

Client Sample ID: HA-3B-1
Date Collected: 07/14/21 10:00
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:19	GSH	TAL SAC

Client Sample ID: HA-3B-2
Date Collected: 07/14/21 10:05
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.95 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:23	GSH	TAL SAC

Client Sample ID: HA-3B-3
Date Collected: 07/14/21 10:10
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:27	GSH	TAL SAC

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Client Sample ID: HA-3B-4
Lab Sample ID: 320-76162-13
Date Collected: 07/14/21 10:15
Matrix: Solid
Date Received: 07/14/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:30	GSH	TAL SAC

Client Sample ID: HA-3B-5
Lab Sample ID: 320-76162-14
Date Collected: 07/14/21 10:20
Matrix: Solid
Date Received: 07/14/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.98 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:34	GSH	TAL SAC

Client Sample ID: HA-3C-1
Lab Sample ID: 320-76162-15
Date Collected: 07/14/21 10:30
Matrix: Solid
Date Received: 07/14/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.99 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:46	GSH	TAL SAC

Client Sample ID: HA-3C-2
Lab Sample ID: 320-76162-16
Date Collected: 07/14/21 10:35
Matrix: Solid
Date Received: 07/14/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.97 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:49	GSH	TAL SAC

Client Sample ID: HA-3C-3
Lab Sample ID: 320-76162-17
Date Collected: 07/14/21 10:40
Matrix: Solid
Date Received: 07/14/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:53	GSH	TAL SAC

Client Sample ID: HA-3C-4
Lab Sample ID: 320-76162-18
Date Collected: 07/14/21 10:50
Matrix: Solid
Date Received: 07/14/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.95 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 17:57	GSH	TAL SAC

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Client Sample ID: HA-3C-5

Date Collected: 07/14/21 10:55
Date Received: 07/14/21 11:45

Lab Sample ID: 320-76162-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	100 mL	506794	07/15/21 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1			507244	07/15/21 18:01	GSH	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2897	01-31-22

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 185805226

Job ID: 320-76162-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-76162-1	HA-2C-1	Solid	07/14/21 09:00	07/14/21 11:45	
320-76162-2	HA-2C-2	Solid	07/14/21 09:05	07/14/21 11:45	
320-76162-3	HA-3-4	Solid	07/14/21 09:15	07/14/21 11:45	
320-76162-4	HA-3-5	Solid	07/14/21 09:20	07/14/21 11:45	
320-76162-5	HA-3A-1	Solid	07/14/21 09:30	07/14/21 11:45	
320-76162-6	HA-3A-2	Solid	07/14/21 09:35	07/14/21 11:45	
320-76162-7	HA-3A-3	Solid	07/14/21 09:40	07/14/21 11:45	
320-76162-8	HA-3A-4	Solid	07/14/21 09:45	07/14/21 11:45	
320-76162-9	HA-3A-5	Solid	07/14/21 09:50	07/14/21 11:45	
320-76162-10	HA-3B-1	Solid	07/14/21 10:00	07/14/21 11:45	
320-76162-11	HA-3B-2	Solid	07/14/21 10:05	07/14/21 11:45	
320-76162-12	HA-3B-3	Solid	07/14/21 10:10	07/14/21 11:45	
320-76162-13	HA-3B-4	Solid	07/14/21 10:15	07/14/21 11:45	
320-76162-14	HA-3B-5	Solid	07/14/21 10:20	07/14/21 11:45	
320-76162-15	HA-3C-1	Solid	07/14/21 10:30	07/14/21 11:45	
320-76162-16	HA-3C-2	Solid	07/14/21 10:35	07/14/21 11:45	
320-76162-17	HA-3C-3	Solid	07/14/21 10:40	07/14/21 11:45	
320-76162-18	HA-3C-4	Solid	07/14/21 10:50	07/14/21 11:45	
320-76162-19	HA-3C-5	Solid	07/14/21 10:55	07/14/21 11:45	

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Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone. (925) 484-1919 • Fax: (925) 600-3002

320-76162

Reference #: 2C02

Date 7/14/21 Page 1 of 2

Report To

Attn:
Company: Stantec
Address: 75 E. Santa Clara St. Suite 1225
Email: Alicia.Jansen@Stantec.com
Bill To:
Sampled By: Jaylen.G
Attn:
Phone: 408-221-0915

Analysis Request

Sample ID	Date	Time	Mat ix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B		Number of Containers
HA-2C-1	7/14/21	0900	S																				X		1
HA-2C-2		0905																					X		
HA-3-4		0915																					X		
HA-3-5		0920																					X		
HA-3a-1		0930																					X		
HA-3a-2		0935																					X		
HA-3a-3		0940																					X		
HA-3a-4		0945																					X		
HA-3a-5		0950																					X		

Page 1 of 2

Project Info.

Project Name/ #: 1656805226
PO#:
Credit Card Y/N:

Sample Receipt

of Containers:
Head Space:
Temp: 23.4

If yes, please call with payment information ASAP

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | (1 Day) | Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID _____

See Terms and Conditions on reverse

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: [signature] Time: 1145	Signature: Time:	Signature: Time:
Printed Name: Jaylen.G Date: 7/14/21	Printed Name: Date:	Printed Name: Date:
Company: Stantec	Company:	Company:

1) Received by	2) Received by	
Signature: [signature] Time: 1145	Signature: Time:	Signature: Time:
Printed Name: CASEY G. Date: 7/14/21	Printed Name: Date:	Printed Name: Date:
Company: EMSL	Company:	Company:

320-76162 Chain of Custody

7/16/2021

eurofins | Environment Testing TestAmerica

Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

320-76162

Reference #: _____

Date 7/14/21 Page 2 of 2

Report To

Attn:
Company:
Address:
Email:
Bill To: | Sampled By:
Attn | Phone:

Analysis Request

Sample ID	Date	Time	Mat Mtx	Preserv
HA-3b-1	7/14/21	1000	S	
HA-3b-2		1005		
HA-3b-3		1010		
HA-3b-4		1015		
HA-3b-5		1020		
HA-3C-1		1030		
HA-3C-2		1035		
HA-3C-3		1040		
HA-3C-4		1050		
HA-3C-5		1055		

Volatile Organics GC/MS (VOCs) ☐ EPA 8260B
HVOCs by ☐ EPA 8260B
EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol
TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ____
Semi Volatile Organics GC/MS ☐ EPA 8270C
PNA/PAH's by ☐ 8270C ☐ 8270C SIM
Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total
Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082
CAM17 Metals (EPA 6010/7470/7471)
Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other ____
Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ____
☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP
Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199
pH ☐ 9040 ☐ SM4500
☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS
Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4
☐ Perchlorate by EPA 314.0
COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity
Arsenic by EPA Method 6010B
Number of Containers

																				X			1
																				X			1
																				X			1
																				X			1
																				X			1
																				X			1
																				X			1
																				X			1
																				X			1
																				X			1

Project Info.

Project Name/ #: 185805226
PO#:
Credit Card Y/N: If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp: 2.3 4

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | (1 Day) | Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID _____

See Terms and Conditions on reverse

7/16/2021

Page 20 of 29

1) Relinquished by: Signature 7/14/21 Time
Printed Name 1145 Date
Company Stantec

2) Relinquished by: Signature Time
Printed Name Date
Company

3) Relinquished by: Signature Time
Printed Name Date
Company

1) Received by: Signature 7/14/21 Time
Printed Name 1145 Date
Company EMSL

2) Received by: Signature Time
Printed Name Date
Company

3) Received by: Signature Time
Printed Name Date
Company

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Pleasanton Chain of Custody
1220 Quarry Lane ● Pleasanton CA 94566-4756
Phone (925) 484-1919 ● Fax: (925) 600-3002

320-76162

Reference #: 200233

Date 7/14/21 Page 1 of 2

Report To

Attn.
Company: Stantec
Address: 75 E. Santa Clara St. Suite 1225
Email: Alicia.Jansen@Stantec.com
Bill To:
Sampled By: Jaylen. G
Attn.
Phone: 408-221-0915

Analysis Request

Sample ID	Date	Time	Mat rx	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides PCBs ☐ EPA 8081 ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B		Number of Containers
HA-2C-1	7/14/21	0900	S																					X		1
HA-2C-2		0905																						X		1
HA-3-4		0915																						X		1
HA-3-5		0920																						X		1
HA-3a-1		0930																						X		1
HA-3a-2		0935																						X		1
HA-3a-3		0940																						X		1
HA-3a-4		0945																						X		1
HA-3a-5		0950																						X		1

Page 21 of 29

Project Info.

Project Name/ #: 1855805226
PO#:
Credit Card Y/N: If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp: 23.4

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | (1 Day) | Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse

7/16/2021

	1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature	[signature]		
Time	1145		
Printed Name	Jaylen. G		
Date	7/14/21		
Company	Stantec		

	1) Received by	2) Received by	
Signature	[signature]		
Time	1145		
Printed Name	CARLOS G.		
Date	7/14/21		
Company	EMSI		

320-76162 Chain of Custody

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Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone (925) 484-1919 • Fax: (925) 600-3002

320-76162

Reference #: _____

Date 7/14/21 Page 2 of 2

Report To

Attn:
Company:
Address:
Email:
Bill To:
Sampled By:
Attn.
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other _____	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): _____	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B		Number of Containers
HA-3b-1	7/14/21	1000	S																				X		1
HA-3b-2		1005																					X		1
HA-3b-3		1010																					X		1
HA-3b-4		1015																					X		1
HA-3b-5		1020																					X		1
HA-3c-1		1030																					X		1
HA-3c-2		1035																					X		1
HA-3c-3		1040																					X		1
HA-3c-4		1050																					X		1
HA-3c-5		1055																					X		1

Project Info.

Project Name/ #:
185805226
PO#:
Credit Card Y/N:

Sample Receipt

of Containers:
Head Space:
Temp: 23 4

If yes, please call with payment information ASAP

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | (1 Day) | Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID _____

7/16/2021

See Terms and Conditions on reverse

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: [signature] Time: 7/14/21	Signature: _____ Time: _____	Signature: _____ Time: _____
Printed Name: Taylor G Date: 1145	Printed Name: _____ Date: _____	Printed Name: _____ Date: _____
Company: Stantec	Company: _____	Company: _____

1) Received by	2) Received by	3) Received by
Signature: [signature] Time: 7/14/21	Signature: _____ Time: _____	Signature: _____ Time: _____
Printed Name: Corey G Date: 1145	Printed Name: _____ Date: _____	Printed Name: _____ Date: _____
Company: EMSL	Company: _____	Company: _____

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Pleasanton Chain of Custody
1220 Quarry Lane ● Pleasanton CA 94566-4756
Phone. (925) 484-1919 ● Fax: (925) 600-3002

320-76162

Reference #: 200233

Date 7/14/21 Page 1 of 2

Report To

Attn:
Company: StanTec
Address: 75 E. Santa Clara St. Suite 1225
Email: Alicia.Jansen@stantec.com
Bill To:
Sampled By: Jaylen. G
Attn.
Phone: 408-221-0915

Analysis Request

Sample ID	Date	Time	Mat rix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 6 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B		Number of Containers
HA-2C-1	7/14/21	0900	S																				X		
HA-2C-2		0905																					X		
HA-3-4		0915																					X		
HA-3-5		0920																					X		
HA-3a-1		0930																					X		
HA-3a-2		0935																					X		
HA-3a-3		0940																					X		
HA-3a-4		0945																					X		
HA-3a-5		0950																					X		

Page 23 of 29

Project Info.

Project Name/ #: 1856805226
PO#:
Credit Card Y/N:

Sample Receipt

of Containers:
Head Space:
Temp: 23.4

If yes, please call with payment information ASAP

TAT: 10 Day | 5 Day | 4 Day | 3 Day | 2 Day | (1 Day) | Other

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse

7/16/2021

	1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature			
Time	1145		
Printed Name	Jaylen. G		
Date	7/14/21		
Company	StanTec		

	1) Received by	2) Received by	
Signature			
Time	1145		
Printed Name	Jaylen G.		
Date	7/14/21		
Company	EMSL		

320-76162 Chain of Custody

eurofins | Environment Testing TestAmerica

Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone (925) 484-1919 • Fax: (925) 600-3002

320-76162

Reference #: _____

Date 7/14/21 Page 2 of 2

Report To

Attn.
Company
Address:
Email:
Bill To:
Sampled By
Attn.
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease (EPA 1664/9071) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 PCBs ☐ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other ___	Metals: ☐ 6020 ☐ 200.8 (ICP-MS): ___	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex. Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity	Arsenic by EPA Method 6010B		Number of Containers
HA-3b-1	7/14/21	1000	S																			X			1
HA-3b-2		1005																				X			1
HA-3b-3		1010																				X			1
HA-3b-4		1015																				X			1
HA-3b-5		1020																				X			1
HA-3C-1		1030																				X			1
HA-3C-2		1035																				X			1
HA-3C-3		1040																				X			1
HA-3C-4		1050																				X			1
HA-3C-5		1055																				X			1

Page 24 of 29

Project Info.

Project Name/ #:
185805226
PO#:
Credit Card Y/N:
If yes, please call with payment information ASAP

Sample Receipt

of Containers:
Head Space:
Temp: 23 4

TAT	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Other
						(1 Day)	

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF
Special Instructions / Comments. ☐ Global ID _____

See Terms and Conditions on reverse

7/16/2021

1) Relinquished by	2) Relinquished by	3) Relinquished by
Signature: [signature] Time: 7/14/21	Signature: Time:	Signature: Time:
Printed Name: Jaylen G Date: 1145	Printed Name: Date:	Printed Name: Date:
Company: Stantec	Company:	Company:

1) Received by	2) Received by	3) Received by
Signature: [signature] Time: 7/14/21	Signature: Time:	Signature: Time:
Printed Name: Jaylen G Date: 1145	Printed Name: Date:	Printed Name: Date:
Company: EMSL	Company:	Company:

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Salimpour, Afsaneh F	Carrier Tracking No(s):	COC No: 320-232295.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Afsaneh.Salimpour@Eurofinset.com	State of Origin: California	Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 320-76162-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 7/16/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 185805226	Project #: 32017932			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B (MOD) As & PB	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HA-2C-1 (320-76162-1)	7/14/21	09:00 Pacific		Solid			X	1	
HA-2C-2 (320-76162-2)	7/14/21	09:05 Pacific		Solid			X	1	
HA-3-4 (320-76162-3)	7/14/21	09:15 Pacific		Solid			X	1	
HA-3-5 (320-76162-4)	7/14/21	09:20 Pacific		Solid			X	1	
HA-3A-1 (320-76162-5)	7/14/21	09:30 Pacific		Solid			X	1	
HA-3A-2 (320-76162-6)	7/14/21	09:35 Pacific		Solid			X	1	
HA-3A-3 (320-76162-7)	7/14/21	09:40 Pacific		Solid			X	1	
HA-3A-4 (320-76162-8)	7/14/21	09:45 Pacific		Solid			X	1	
HA-3A-5 (320-76162-9)	7/14/21	09:50 Pacific		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7/14/21 1615	TestAm		7/14/21 1615	DCS
2		7-14-21 2045	DCS		7/14/20 2045	TASA
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

7/16/2021

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Salimpour, Afsaneh F	Carrier Tracking No(s):	COC No: 320-232295.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Afsaneh.Salimpour@Eurofinset.com	State of Origin: California	Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 320-76162-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 7/16/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 185805226	Project #: 32017932			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B (MOD) As & PB	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HA-3B-1 (320-76162-10)	7/14/21	10:00 Pacific		Solid			X	1	
HA-3B-2 (320-76162-11)	7/14/21	10:05 Pacific		Solid			X	1	
HA-3B-3 (320-76162-12)	7/14/21	10:10 Pacific		Solid			X	1	
HA-3B-4 (320-76162-13)	7/14/21	10:15 Pacific		Solid			X	1	
HA-3B-5 (320-76162-14)	7/14/21	10:20 Pacific		Solid			X	1	
HA-3C-1 (320-76162-15)	7/14/21	10:30 Pacific		Solid			X	1	
HA-3C-2 (320-76162-16)	7/14/21	10:35 Pacific		Solid			X	1	
HA-3C-3 (320-76162-17)	7/14/21	10:40 Pacific		Solid			X	1	
HA-3C-4 (320-76162-18)	7/14/21	10:50 Pacific		Solid			X	1	

RUSH

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7/14/21 1610	TestAm SS		7/14/21 1615	DCS
2		7-14-21 2045	DCS		7/14/21 2045	TASAC
3		Date/Time:	Company		Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Salimpour, Afsaneh F	Carrier Tracking No(s):	COC No: 320-232295.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Afsaneh.Salimpour@Eurofinset.com	State of Origin: California	Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 320-76162-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 7/16/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: 185805226	Project #: 32017932			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B (MOD) As & PB	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HA-3C-5 (320-76162-19)	7/14/21	10:55 Pacific		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7/14/21 1615	TEMET		7/14/21 1615	DC1
2	Relinquished by:	Date/Time: 7-14-21 2045	Company	Received by:	Date/Time: 7/14/21 2045	Company ETASAC
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 320-76162-1

Login Number: 76162
List Number: 1
Creator: Garcia, Hilario A

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 320-76162-1

Login Number: 76162 **List Source: Eurofins TestAmerica, Sacramento**
List Number: 2
Creator: Her, David A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix E

Preliminary Stormwater Control Plan

Appendix E

Preliminary Stormwater Control Plan

MH engineering Co.
16075 Vineyard Blvd. Morgan Hill, CA 95037 - (408) 779-7381

Preliminary Stormwater Control Plan

for

The Gates
Tract Number Will be Provided Later
18545 & 18565 Monterey Road, Morgan Hill, CA 95037

June 29, 2022



City Ventures Homebuilders, LLC, Owner
Samantha Hauser, Legally Responsible Party
444 Spear Street, Suite 200, San Francisco, CA 94105
samantha@cityventures.com
646.522.4260

Prepared by:
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A. Existing Site Conditions
B. Performance Requirement Certifications
C. Percolation Testing Results
D. LID Retention Volume Sizing Calculations
E. NOAA Rainfall Data
F. HydroCAD Model Output
G. Stormwater Management Plan & Details
H. Executed Stormwater Best Management Practices, Operation, and Maintenance Agreement (provided at permitting)
I. Executed Contract with a Third Party Engineer or QSP (provided at permitting)
J. Operation and Maintenance Plans (provided at permitting)
K. Operation & Inspection Logs, Form, & Checklists (provided at permitting)
L. BMP RAM Field Protocols (provided at permitting)
M. City of Morgan Hill Municipal Code Chapter 18.71 (provided at permitting)

I. Project Data

I.A. Purpose of the Report

The general purpose of this Stormwater Control Plan (SWCP) is to demonstrate compliance with the Central Coast Regional Water Quality Control Board's (CCRWQCB) Post-Construction Stormwater Compliance Resolution R3-2013-0032 and the Stormwater Management Guidance Manual for Low Impact Development & Post Construction Requirements, June 2015, City of Gilroy, City of Morgan Hill and County of Santa Clara.

All new construction and redevelopment projects are required to comply with these regulations if they create and/or replace at least 2,500 square feet of impervious area. The requirements are designed preserve the health of watersheds that may be impacted by the improvement of the subject property. Developments are encouraged to maximize the use of Low Impact Development (LID) techniques and incorporate as many Stormwater Control Measures (SCM) and Best Management Practices (BMP) as possible to reduce contaminants leaving the site and affecting downstream water bodies. A Stormwater Control Plan prepared by, or under the direction of, a Professional Civil Engineer is required to detail the potential impacts and mitigation measures implemented by the project.

Table 1: Project Data Summary

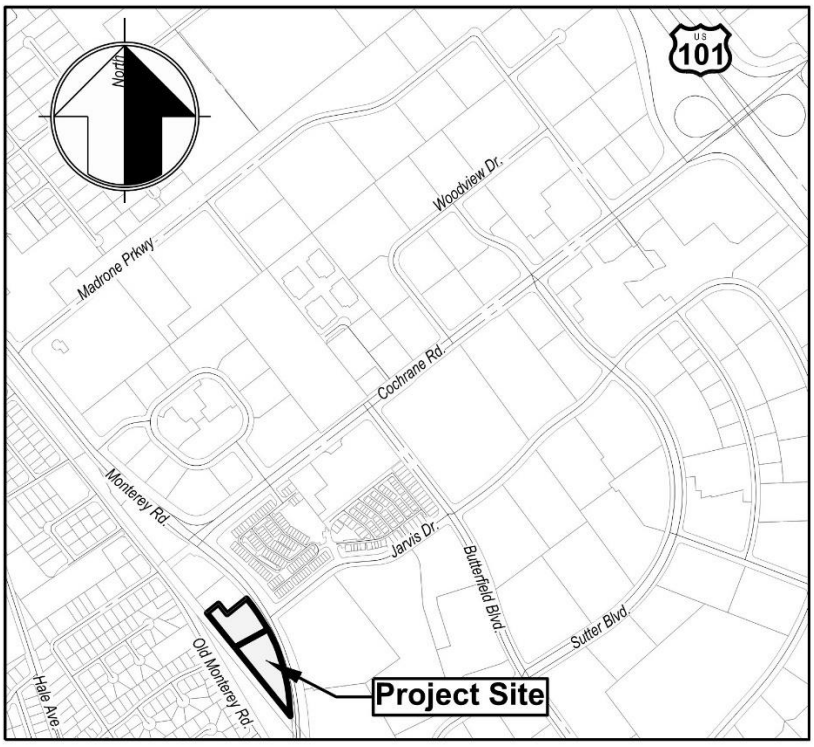
Project Name/Number	221005.1 - The Gates
Application Submittal Date	6/29/2022
Project Location	18545 & 18565 Monterey Road, Morgan Hill, CA 95037
Project Phase	N/A
Project Type and Description	Mixed Use development. Project consists of 5 commercial units and 49 residential units.
Total Project Area	174,172 SF
Total New Impervious Area	112,024 SF
Total Replaced Impervious Area	0 SF
Total Pre-Project Impervious Area	0 SF
Total Post-Project Impervious Area	112,024 SF
Net Impervious Area	112,024 SF
Watershed Management Zone	1
Design Storm Frequency	95th Percentile
Design Storm Depth	1.85

II. Setting

II.A. Project Location and Description

This project is located at 18545 & 18565 Monterey Road in Morgan Hill, CA. The site is located between existing Monterey Road, Southern Pacific Railroad tracks, and just south of a commercial development. The project sits on the upper tributary of Fisher Creek and the border of San Francisco Bay Regional Water Quality Control Board jurisdiction and Central Coast Regional Water Quality Control Board jurisdiction. The proposed development seeks to extend the 18" and triple 24" culverts through the project and backfill the man-made ditch to allow for development of 5 commercial units and 49 residential units. The temporary detention basin will be relocated into a public Storm Drain Easement in the southern tip of the subject property and will be sized to mitigate both the proposed development's impact as well as the existing commercial development to the north of the property.

Figure 1: Vicinity Map



II.B. Existing Site Features and Conditions

The existing site has a manmade ditch that runs through the center of the project that is an outfall for an 18" culvert from the northeast corner of the intersection of Jarvis Drive and Monterey Road and triple 24" culverts from a storm drain pump station maintained by the City of Morgan Hill. The City of Morgan Hill has stated that this pump station will is no longer utilized after the construction of a retention/detention pond located just south of the pump station and drains into a drainage channel along Butterfield Boulevard southeast of the proposed development. Existing drainage patterns for the site drain via sheet flow into this man-made ditch and into a temporary detention basin that was constructed in 2005 for the use of all parcels in this commercial area to mitigate increased runoff. See Attachment A for details.

II.C. Opportunities and Constraints for Stormwater Control

II.C.1. Opportunities.

Opportunities for stormwater control include measures such as limiting disturbance of natural drainage features, permeable soils, or native vegetation; minimizing impervious areas; routing runoff through vegetation; and use of permeable surfaces such as pavers. Opportunities presented and implemented by this site include:

The existing conditions of the site leave a large area that is in the public storm drainage easement that allows us to provide adequate treatment and mitigation of increased runoff. The site layout has been optimized to reduce pavement to the maximum extent allowed by the City of Morgan Hill and as feasible to provide adequate access and amenities on site. The site has existing drainage facilities that present both opportunities as well as constraints. The existing storm drainage system has existing outfalls that allow us to maintain the existing drainage patterns without changing existing outfall locations.

II.C.2. Constraints

Stormwater Control Constraints include site conditions such as impermeable soils, high groundwater, groundwater and/or soil contamination, geotechnical hazards, project density, or high-intensity land use. Constraints presented by this project include:

This site is located within an area of ponding per FEMA FIRM map 06085C0443H, effective May 18, 2009. This limits the grading on the site to maintain a finish floor elevation a minimum of 1' above the base flood elevation of 354.00. The existing culverts that will be extended through the project must flow across the project and daylight at the railroad tracks to outlet into the box culvert located under the railroad tracks. This is to maintain the drainage pattern existing on the site prior to the ditch being backfilled. The site is also located adjacent to the underpass for Monterey Road to cross the railroad tracks. The grades necessary for maintaining the existing drainage pattern to Fisher Creek means that a small portion of Monterey Road as it goes under the railroad tracks is unable to be routed through the pond. This area has been accounted for in the peak flow mitigation calculations even though it is not being routed through the pond.

III. Low Impact Development Design Strategies

III.A. Performance Requirements

The CCRWQCB Resolution R3-2013-0032 as well as the *Stormwater Management Guidance Manual for Low Impact Development & Post Construction Requirements, June 2015, City of Gilroy, City of Morgan Hill and County of Santa Clara* describe levels of Post-Construction Requirements based upon the amount of impervious area created/replaced. Below is a discussion of each of the performance requirements and mitigation measures intended to comply with each Performance Requirement Tier.

III.A.1. Performance Requirement No. 1 (PR-1): Site Design and Runoff Reduction

Development projects that create and/or replace at least 2,500 square feet of impervious areas are subject to PR-1. PR-1 requires the following:

- Limit Disturbance of creeks and natural drainage features
- Limit disturbance of highly permeable soils
- Limit disturbance of native vegetation
- Minimize creation and/or replacement of impervious areas
- Minimize runoff using:
    - Cisterns or rain barrels for reuse
    - Route runoff through vegetation
    - Use of permeable pavements

This site has been designed to minimize the proposed impervious areas by proposing minimum street widths while still complying with City of Morgan Hill and Fire Department access requirements and utilizing a shared parking agreement with the commercial development to the north to minimize the required impervious area required for access and parking. The site is proposing large amenity areas that will remain pervious for recreational purposes for residents.

The site has an existing drainage ditch running across the property to the railroad tracks along the westerly boundary. This site has been evaluated by the Army Corps of Engineers and has been determined to not be a jurisdictional creek. This ditch serves the City maintained pump station on the east side of Monterey Road that is only used to drain the City maintained detention pond in the event of back-to-back storm events. The proposed development will be extending the triple culverts and 18" culvert that feeds into this ditch and outlet them at the westerly property line in an energy dissipation structure. Since the existing ditch drains to this same location, pre-development drainage patterns have been preserved.

The site has an existing detention pond located on the site that serves the first two phases of the original commercial development. This pond is to be relocated into a storm drain easement located at the southern tip of the property. The existing commercial development drains to the existing detention pond via a storm drain pipe that will be modified to carry the water to the newly relocated detention pond. This existing pond outlets via a headwall and culvert at the westerly property line. To preserve the existing drainage patterns and release points, this headwall and outlet pipe has been reused.

III.A.2. Performance Requirement No. 2 (PR-2): Water Quality Treatment

Development projects that create and/or replace at least 5,000 square feet (15,000 square feet for Single-Family Detached Homes) Net Impervious Area are subject to PR-2 in addition to PR-1. Net Impervious Area

credits apply when the Post-Development Impervious Area is less than Pre-Development Conditions and is calculated below:

Net Impervious Area=(Total Post Development Impervious Area)-(Reduced Impervious Area Credit)

Where

Reduced Impervious Area Credit =
(Total Pre-Development Impervious Area) – (Total Post-Development Impervious Area)

Projects subject to the requirements of PR-2 are responsible for treating any contaminants that are created by the development. Table 2 below corresponds to Table 4 in *Stormwater Management Guidance Manual for Low Impact Development & Post Construction Requirements, June 2015, City of Gilroy, City of Morgan Hill and County of Santa Clara* and is listed in order of preference according to said manual.

Table 2 - Water Quality Treatment Measures Design Criteria (Guidance Manual Table 4)

Water Quality Treatment Measure*	**Design Criteria**
LID Treatment System – *Harvesting and use, infiltration, evapotranspiration, and bioretention (without an underdrain) SCMs*	Retain stormwater from the 85th Percentile 24-hour storm event (based on local rainfall data)
Biofiltration Treatment System – *Bioretention with raised underdrain, or other facilities at least as effective as a system with the specified design criteria.*	Design of rain event of 0.2 in/hr intensity or 2 x 85th percentile hourly rainfall intensity or other specified design criteria include: • Maximum surface loading rate of 5 in/hr • Minimum surface reservoir depth (6") • Minimum planting minimum depth (24") • Proper plant selection • Subsurface gravel layer (minimum depth of 12") • Underdrain placement near the top of the gravel layer • No compaction of soils beneath the facility • No liners preventing infiltration
Non-Retention Based Treatment Systems – *Lined bioretention, flow-through planters, and high rate tree well filters and media filters*	Volume Hydraulic Design Basis: 85th Percentile 24-hour storm event Flow Hydraulic Design Basis: 0.2 in/hr intensity OR 2 x 85th Percentile hourly rainfall intensity
*Multiple SCMs may be used to collectively achieve the design criteria.	

This project utilizes an above ground bioretention pond located at the southern end of the proposed development. This system uses surface storage, biofiltration media, and ¾ inch drain rock to retain the 95th Percentile 24-hour storm event. This site is required to retain the 95th Percentile Storm Event in compliance with Performance Requirement 3 (see Section III.A.3) and the 95th Percentile event is a larger storm event, this pond is designed in compliance with Performance Requirement 2 by exceeding the required 85th Percentile 24-hour storm event volume. The proposed bioretention pond consists of surface storage with 4:1 maximum side slopes with 24" of bioswale media mix (min. 5 inch/hour loading rate as required by *Stormwater Management Guidance Manual for Low Impact Development & Post Construction Requirements, June 2015, City of Gilroy, City of Morgan Hill and County of Santa Clara*) on top of 24" of ¾" clean drain rock for subsurface retention volume. The surface pond utilizes 12" of surface ponding as recommended by the Guidance Manual.

In addition to the LID Treatment System, the City of Morgan Hill requires flow-based Biofiltration Treatment Systems. This system uses biofiltration media and special plant selection to break down contaminants in the water before entering the underground storage system. Figure 2 below shows a typical bioswale detail. The

simplified sizing method (also known as the 4% sizing method) was used to size these biofiltration systems. Figure 3 below shows simplified sizing methodology per the *Stormwater Management Guidance Manual for Low Impact Development & Post Construction Requirements, June 2015, City of Gilroy, City of Morgan Hill and County of Santa Clara* and Table 3 below show the sizing of each of the biofiltration SCMs.

Figure 2: Bioretention Pond Detail

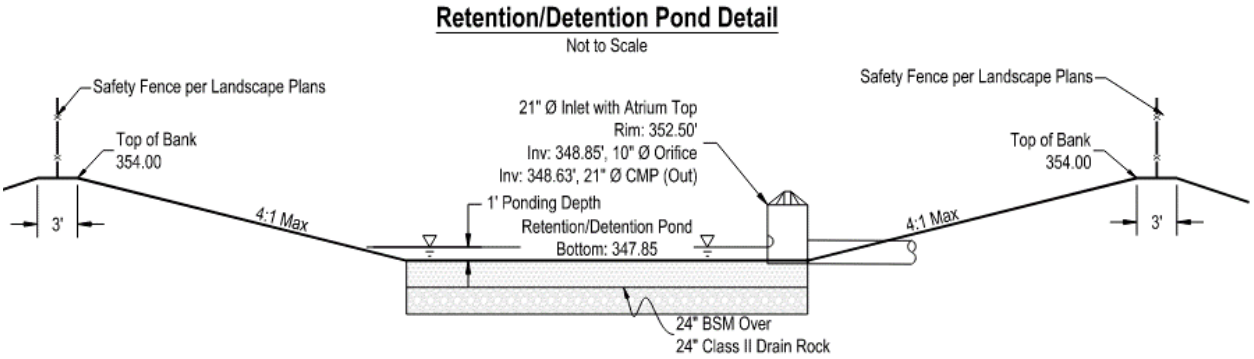


Figure 3: Simplified Biofiltration Sizing Method (Guidance Manual Figure 6)

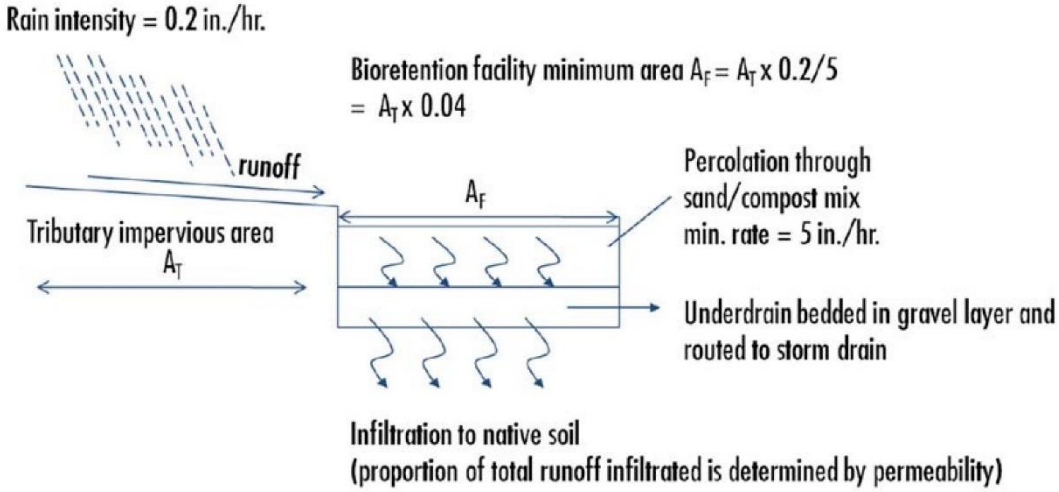


Table 3: LID Treatment Sizing Summary

LID Treatment Sizing Table					
DMA	**BMP**	**Total DMA Area**	**DMA Impervious Area**	**Required Treatment Area**	**Provided Treatment Area**
1	SCM 1	174,172 SF	112,024 SF	4,481 SF	4,888 SF

III.A.3. Performance Requirement No. 3 (PR-3): Runoff Retention

Development projects that create and/or replace 15,000 square feet of impervious area (Single Family Detached Homes are allowed to use Net Impervious Area as defined in PR-2) and are located within Watershed Management Zones 1, 2, 5, 6, 8, 9, and portions of Watershed Management Zones 4, 7, and 10 that lie in designated Groundwater Basins are subject to Performance Requirement 3 as we well as PR-1 and PR-2. PR-3 requires the retention of the volume of runoff that could contain contaminants and that would naturally infiltrate in pre-development conditions. Appendix D of the *Stormwater Management Guidance Manual for Low Impact Development & Post Construction Requirements, June 2015, City of*

Gilroy, City of Morgan Hill and County of Santa Clara details the calculations for the required retention volume. Attachment E has detailed calculations for this project following the calculations in Appendix D of said Guidance Manual and is summarized below in Table 4 below.

Table 4: LID Volume Sizing Summary

LID Volume Sizing Table							
DMA	**BMP**	**Total DMA Area**	**DMA Impervious Area**	**i**	**C**	**Required Retention Volume**	**Provided Retention Volume**
1	SCM 1	174,172 SF	112,024 SF	0.64	0.44	11,907 CF	11,961 CF

This retains the required retention volume as calculated in Attachment D using an above ground retention/detention pond. The bioretention pond is placed at placed at the lowest point on site to conform to existing terrain and watersheds with a bottom elevation of 347.85'. The bioretention pond consists of surface storage with 4:1 side slopes and 12" of ponding on top of 24 inches of biofiltration media on top of 24 inches of ¾ inch drain rock. Retention volume calculations provided in Attachment D calculate the surface storage from the bottom of the surface pond to the invert of the outlet, the volume in the biofiltration media using 25% voids, and the volume in the voids of the drain rock using 40% voids. The pond releases via a stand pipe with a 10 inch orifice at an elevation of 348.85' and a top (release) elevation of 352.50' to retain the required retention volume. The 10" orifice elevation was set using a maximum ponding depth of 12" per C.3 handbook recommendations and the top of the stand pipe elevation set to bypass higher intensity storms while maintaining a minimum of 1 foot of freeboard in the pond. The 95th Percentile Storm Event was modeled in HydroCAD to ensure no release of the 95th Percentile Event as required by the *Stormwater Management Guidance Manual for Low Impact Development & Post Construction Requirements, June 2015, City of Gilroy, City of Morgan Hill and County of Santa Clara* continuous simulation of hydrologic model. See Section IV and Attachment F for detailed HydroCAD modeling data.

Infiltration Testing was conducted by Quantum Geotechnical, Inc. around the proposed bioretention pond at approximately the elevation of the bottom of the drain rock. Design infiltration rates have been determined using an average of the four tests conducted and an application of a factor of safety of 2. See Attachment B for excerpts from Geotechnical Investigation Report discussing infiltration testing. Design infiltration rate used for this pond is 1.625 inches per hour. Using this design infiltration rate applied to the bottom surface area of the rock, drawdown of the calculated retention volume is 24 hours. The design infiltration rate has been applied to the surface storage, biomedia, and drain rock in the HydroCAD model as all of these layers will allow infiltration into native soils through side slopes and sides of the media. Drawdown calculations in Attachment D are calculated using the bottom area of the drain rock to determine the longest time it could take to infiltrate.

III.A.4. Performance Requirement No. 4 (PR-4): Peak Management

Development Projects that create and/or replace at least 22,500 square feet of impervious areas and within Watershed Management Zones 1, 2, 3, 6, and 9 are required to comply with Performance Requirement 4 in addition to previously discussed performance requirements. PR-4 is intended to mitigate the increased runoff created by the project's increase in impervious areas, thus preventing any adverse flooding conditions downstream of the project. PR-4 requires developments to detain increased runoff from the 2-, 5-, and 10-year events such that they release at rates at, or below, pre-development conditions.

This project retains the required retention volume as calculated in Attachment D using an above ground bioretention/detention pond. The bioretention/detention pond is placed at placed at the lowest point on site to conform to existing terrain and watersheds with a bottom elevation of 347.85'. The bioretention pond consists of surface storage with 4:1 side slopes and 12" of ponding on top of 24 inches of biofiltration media on top of 24 inches of ¾ inch drain rock. The pond releases via a stand pipe with a 10" orifice at an elevation of 348.85' and a top (release) elevation of 352.50' to retain the required retention volume. Outfall elevation and size has been designed to meter the outflow from the project at, or below, pre-development conditions up to the 100-year event. See Section IV below for detailed description of model and results.

III.A.5. Performance Requirement No. 5 (PR-5): Special Circumstances
This Performance Requirement applies to projects that are exempt from the runoff retention and/or peak flow mitigation requirements described in previous performance requirements because they discharge to highly altered channels, flow control facilities, or historic lake and wetland areas.

This project does not fall under this performance requirement.

IV. Documentation of Drainage Design

IV.A. Drainage Management Area Characterization

The Drainage Management Areas (DMAs) shown on Attachment G have been delineated based upon the tributary areas to each Source Control Measure (SCM). This site has been simplified to use one DMA and one SCM. The entire site is designed to be piped to the bioretention pond at the southern end of the site and bubble up into the bioretention pond. Table 4 below shows a summary of each of the DMAs. See Attachment G for details.

Table 5: DMA Summary Table

DMA Summary Table						
DMA	**BMP**	**Total DMA Area**	**Existing Impervious Area**	**Post-Development Impervious Area**		
				Replaced	New	**Total**
1	SCM 1	174,172 SF	0 SF	0 SF	112,024 SF	**112,024 SF**

IV.B. Hydrologic Modeling

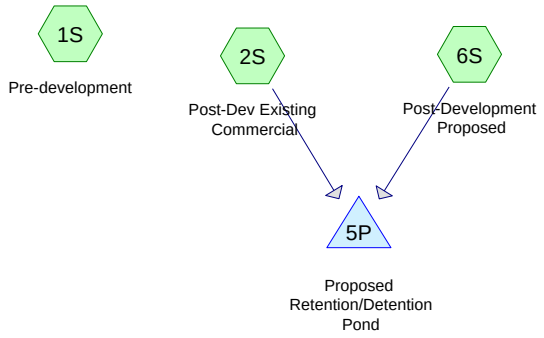
Hydrologic modeling has been completed utilizing the HydroCAD program. This program uses the SCS Unit Hydrograph method to route the design storms through the proposed SCMs to determine the runoff impact generated by the project. The model utilizes a unit hydrograph of Valley Water's Santa Clara Valley 1956 design storm combined with rainfall depths determined by the National Oceanic and Atmospheric Administration (NOAA). NOAA rainfall data has been provided as Attachment E. This rainfall data has been determined to be more conservative and provide the worst-case scenario when determining hydrologic impact of the development. Figure 4 below shows a schematic of the model created in HydroCAD. Detail input and output data can be found in Attachment F.

This development site has an existing detention pond that was used to mitigate the first two phases of the initial commercial development. The pond was intended to be relocated when the two parcels that make up The Gates development were to be developed. This development has relocated this detention pond to the southern tip of the project, within a Storm Drainage Easement to service the proposed development and the existing commercial development to the north.

The "Pre-development" node in the schematic shown below is modeled as bare dirt for the proposed development and the existing commercial development. "Post Dev Existing Commercial" node represents the developed commercial parcels to the north of the project. This node uses the area of the parcels to the north with a SCS Curve Number of 94 to represent 85% impervious coverage of the site. "Post Development Proposed" node represents the proposed developments of this project.

The proposed development also includes the extension of three (3) 24" culverts and one (1) 18" culvert through the property. These culverts accept water from developments on the east side of Monterey Road and are pipe through the property, having no effect on peak flow calculations and maintaining the existing drainage pattern of the site.

Figure 4: HydroCAD Model Schematic



This project uses a bioretention/detention pond for both required retention volume storage and peak-flow mitigation. The bioretention/detention pond is placed at placed at the lowest point on site to conform to existing terrain and watersheds with a bottom elevation of 347.85'. The bioretention pond consists of surface storage with 4:1 side slopes and 12" of ponding over 24 inches of biofiltration media and 24 inches of ¾ inch drain rock for runoff treatment and storage. The pond releases via a stand pipe with a 10" orifice at an elevation of 348.85' and a top (release) elevation of 352.50' to retain the required retention volume and meter the outflow from the pond. The proposed pond will retain stormwater until an elevation of 348.85' to meet required retention volumes discussed in Section III.A.3. Once the water surface elevation rises above 348.85', it will begin to release below pre-development levels. Pre-development levels have been considered to be bare dirt for this model to account for the relocation of the existing detention pond on site.

In addition to the outfall mentioned above, infiltration has been modeled out of the system using the infiltration report mentioned in the Geotechnical Investigation conducted by Quantum Geotechnical, Inc. A factor of safety of 2 has been applied to the average of the four infiltration tests conducted and modeled as "Discarded" in the HydroCAD model. This is the water that will infiltrate into the native soil through the bottom and sides of the drain rock, biomedia, and surface storage during the modeling window. HydroCAD modeling shows that with this infiltration rate included in the system, 95th Percentile water surface elevation (WSE) is at 348.02', 10 inches below the outlet elevation. Using the factored infiltration rate in the HydroCAD model, retained runoff in the system will be fully infiltrated after 24 hours.

The maximum water surface elevation in the system for the event has been determined to be 350.59' for the 100-year event. The system is designed to detain the 100-year event; however overland release has been provided along the westerly bank. Stormwater will also be able to bubble up into Monterey Road through the catch basin provided intercept the water and route the runoff to the bioretention pond before reaching an elevation that would threaten any proposed or existing structures. This system would only be used in the event of failure of the outfall system of collection pipes. Tables 5 and 6 below shows a summary of each event. See Attachment G for detailed model input and output data.

Table 6: Pre-Development Event Summary

Events for Subcatchment 1S: Pre-development

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
95th	1.85	0.58	0.226	0.44
1 year	2.05	0.72	0.286	0.55
2 year	2.66	1.16	0.490	0.95
5 year	3.48	1.79	0.802	1.55
10 year	4.18	2.34	1.092	2.11
25 year	5.16	3.13	1.521	2.94
50 year	5.94	3.77	1.876	3.63
100 year	**6.77**	**4.44**	**2.263**	**4.37**

Table 7: Post-Development Existing Commercial Development Event Summary

Events for Subcatchment 2S: Post-Dev Existing Commer

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
95th	1.85	0.53	0.275	1.26
1 year	2.05	0.60	0.316	1.44
2 year	2.66	0.80	0.442	2.02
5 year	3.48	1.08	0.616	2.82
10 year	4.18	1.31	0.766	3.50
25 year	5.16	1.63	0.977	4.47
50 year	5.94	1.89	1.145	5.24
100 year	**6.77**	**2.16**	**1.325**	**6.06**

Table 8: Post Development Proposed Development Event Summary

Events for Subcatchment 6S: Post-Development Propos

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
95th	1.85	0.71	0.344	1.03
1 year	2.05	0.82	0.402	1.21
2 year	2.66	1.14	0.585	1.76
5 year	3.48	1.56	0.840	2.52
10 year	4.18	1.92	1.063	3.19
25 year	5.16	2.42	1.379	4.14
50 year	5.94	2.82	1.632	4.90
100 year	**6.77**	**3.24**	**1.903**	**5.71**

Table 9: Bioretention Pond Event Summary

Events for Pond 5P: Proposed Retention/Detention Pond

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Tertiary (cfs)	Elevation (feet)	Storage (cubic-feet)
95th	1.24	0.57	0.57	0.00	**0.00**	348.16	8,146
1 year	1.41	0.58	0.58	0.00	0.00	348.43	9,772
2 year	1.94	0.96	0.62	0.33	0.00	349.15	14,612
5 year	2.64	2.07	0.65	1.43	0.00	349.56	17,665
10 year	3.23	2.52	0.66	1.86	0.00	349.77	19,258
25 year	4.06	3.01	0.68	2.33	0.00	350.06	21,612
50 year	4.71	3.37	0.69	2.68	0.00	350.31	23,766
100 year	**5.40**	**3.73**	**0.71**	**3.02**	0.00	**350.59**	**26,333**

Inflow = Post-Development peak runoff flow entering the SCM
Outflow = Total outflow from the SCM, including infiltration and overflow
Discarded = Runoff leaving the system via infiltration using the factored infiltration rate
Primary = Ruoff leaving the system through the 10” orifice and/or stand pipe top.
Tertiary = Pond overtopping
Elevation = Maximum water surface elevation during the storm event

V. Source Control Measures

V.A. Site activities and potential sources of pollutants

Common sources of potential pollutants in residential projects include pesticides/herbicides from landscape maintenance, fertilizers, oil/fuel leaking from poor vehicle maintenance, and airborne contaminants settling on the site.

V.B. Source Control Table

Table 10: Potential Pollutants and Source Control BMPs

	Pollutants Associated with Activity						
Potential Pollutant Source	Sediment/ Litter/ Debris	Nutrients/ Organic Matter	Bacteria	Hydro-carbons	Toxics/ Chemicals/ Paint	Other	Source Control BMP Proposed
Pets		X	X				Good housekeeping/ Illicit Discharge Control/Pet Waste Station
Parked Vehicles	X			X			Vehicle Maintenance, Fueling and Storage
Roads, Fertilizers, Pesticides, Storm Drains, Etc.							Plant Selection and integrated pest management

Table 11: Source Control Measures

Source Control Measure	Description
Storm Drain Inlets	Structural: Inlets clearly marked with "No Dumping" or similar message Operational: Inlets will have routine inspection and cleaning.
Pesticides	Structural: Pest-resistant plans will be selected when possible near impervious surfaces Operational: Landscape maintenance to utilize integrated pest management methods.
Bioswales	Operational: Bi-annual inspections required by the City to assess performance of the filtration media.
Underground Retention System	Structural: Installed sumps for sedimentation and ADS Envirohood for floating contaminants. Operational: Routine inspection and maintenance of sumps.

V.C. Features, Materials, and Methods of Construction of Source Control BMPs

Structural Control Measures are facilities designed and implemented to contain and remove contaminants found in stormwater runoff generated from development. These facilities break down and remove contaminants using filtration, infiltration, sedimentation, and evapotranspiration on the site before releasing runoff from the site.

This project has installed a bioretention facility for the proposed development. The bioretention pond uses biofiltration media that will break down contaminants in runoff using special sand and compost material that will filter contaminants in the runoff. These biofiltration facilities feature a special selection of plants that will break down contaminants such as oils and metals that enter the facility. Runoff will pass through the filtration media and enter the storm drain system via an underdrain and be routed to the retention facility to promote infiltration and further treatment of the runoff.

Bioretention facilities are also used to capture runoff and allow time for runoff the infiltrate into native soil as it did prior to the development. The biofiltration media will allow sediment to remain on the surface and will filter out contaminants prior to infiltrating into native soils. The retained volume provided by the voids in the biofiltration media and drain rock and the above ground storage will capture contaminated runoff and keep all contaminants on site, preventing contamination of receiving waters.

VI. Stormwater Facility Maintenance

VI.A. Ownership and Responsibility for Maintenance in Perpetuity

Projects that trigger Performance Requirements 2, 3, or 4, are required to record a *Stormwater Best Management Practices, Operation, and Maintenance Agreement* with the City and incorporate language into the CC&Rs accepting responsibility for inspection, operation and maintenance of facilities. An HOA will be established at permitting to own and maintain the proposed stormwater mitigation facilities. Executed BMP O&M Agreement, inspections contract, and maintenance documentation will be provided at permitting.

VI.B. Summary of Maintenance Requirements for Each Stormwater Facility

As stated in the *Stormwater Best Management Practices, Operation, and Maintenance Agreement*, the project shall submit two (2) annual inspections per year in perpetuity. One inspection is due every June and shall follow the instructions outlined in the *BMP RAM Field Protocols* (added as attachment). The second inspection shall be submitted every November and will include a certification from the Engineer or QSP verifying all SCM(s) are in working conditions. Maintenance shall be performed whenever the SCM(s) are in poor conditions as per the annual inspections, or regular maintenance.

VII. Construction Checklist

Table 12: Construction Checklist

SWCP Page No.	Structural Control Measure SCMs	Plan Sheet No.	SCM Detail No.
Attachment G	SCM 1	C.9	Bioretention Pond Detail

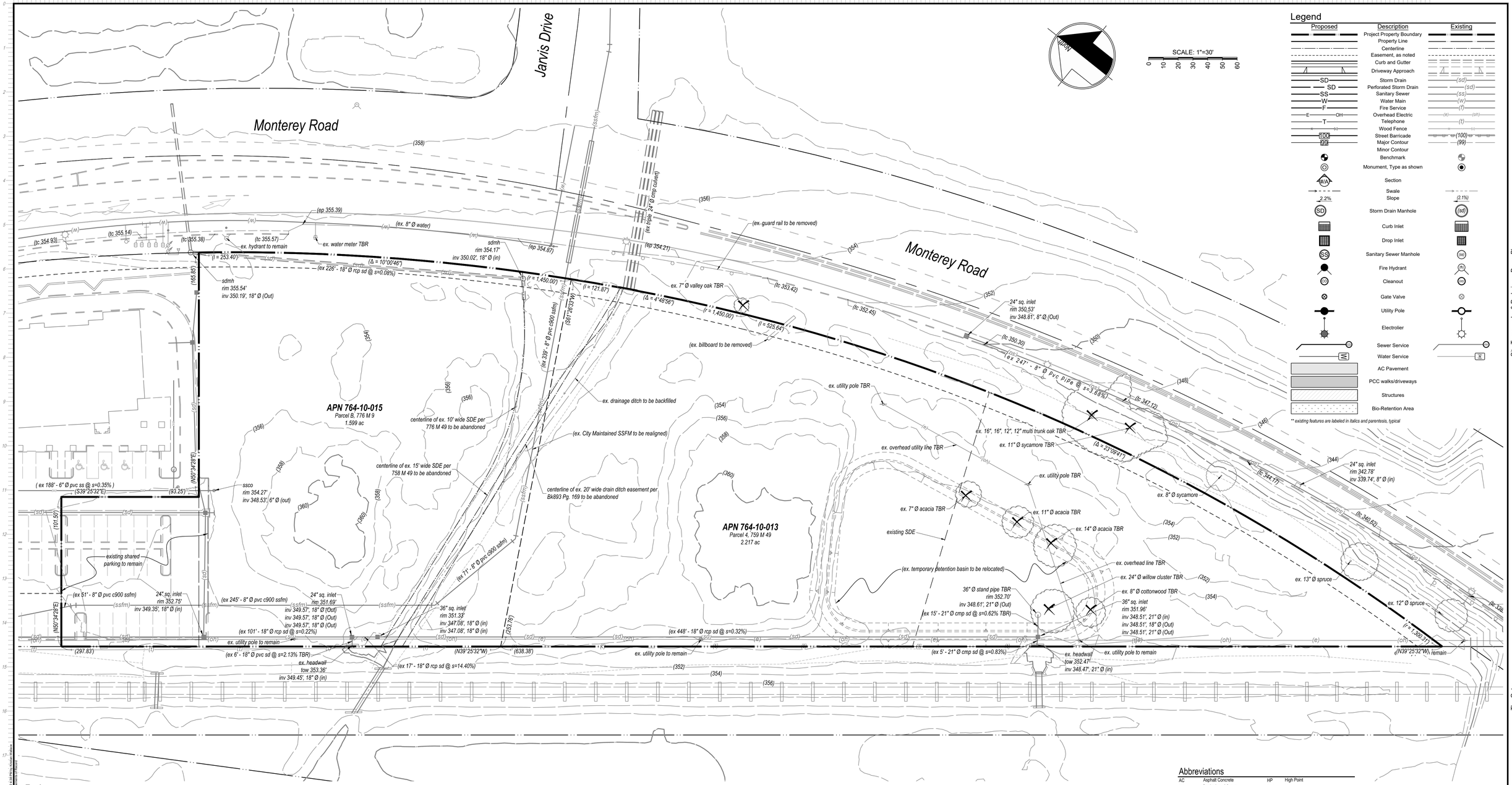
VIII. Certifications

The design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the Post-Construction Stormwater Management Resolution R3-2013-0032 and the current edition of the City's LID and Post-Construction Requirements Handbook.

See Attachment B for Performance Requirement Certifications

MH engineering Co.
16075 Vineyard Blvd. Morgan Hill, CA 95037 - (408) 779-7381

Attachment A:
Existing Site Topography



Legend

Proposed	Description	Existing
	Project Property Boundary	
	Property Line	
	Centerline	
	Easement, as noted	
	Curb and Gutter	
	Driveway Approach	
SD	Storm Drain	(sd)
SD	Perforated Storm Drain	(sd)
SS	Sanitary Sewer	(ss)
W	Water Main	(w)
F	Fire Service	(f)
E OH	Overhead Electric	(e) (oh)
T	Telephone	(t)
x xx	Wood Fence	x xx
100	Street Barricade	(100)
102 98	Major Contour	(99)
	Minor Contour	
	Benchmark	
	Monument, Type as shown	
at(A)	Section	
	Swale	
2.2%	Slope	(2.1%)
SD	Storm Drain Manhole	(sd)
	Curb Inlet	
	Drop Inlet	
SS	Sanitary Sewer Manhole	(ss)
	Fire Hydrant	(f)
C	Cleanout	(ss)
	Gate Valve	
	Utility Pole	
	Electrolier	
C	Sewer Service	C
W	Water Service	W
	AC Pavement	
	PCC walks/driveways	
	Structures	
	Bio-Retention Area	

** existing features are labeled in italics and parentesis, typical

SCALE: 1"=30'
0 10 20 30 40 50 60

Engineer:
Harrinder Singla, C49717
MH Engineering
16075 Vineyard Blvd.
Morgan Hill, CA 95037
408.779.7381
harrys@mhengineering.com

Project Information:

APN	764-10-013 & 015
Present Use:	Vacant
Proposed Use:	Mixed Use Flex
Present Zoning:	PUD
Proposed Zoning:	Mixed Use Flex
Sanitary Sewer:	City of Morgan Hill
Gas and Electric:	PG&E
Water:	City of Morgan Hill
Telephone:	Verizon
Existing Improvements:	As Shown
Area:	3.816
Topo:	Field Topo

Basis of Bearings:
Bearings shown on this map are based up on the centerline of Old Montery Road as found and monumented as North 31°44'59" West as shown on that certain Tract Map recorded at Book 677 of Map, Page 52-53, Santa Clara County Records.

Benchmark:
Elevations shown on this map are based upon Santa Clara Valley Water Benchmark BM1067 located at the railroad tracks for Union Pacific Railroad (UPRR); 300 southeast from Cochrane Road along Old Monterey Road; opposite to address 18515 Old Monterey Road; disk is on top of 1.7 feet wide by 8.5 feet long concrete headwall on northwesterly side of tracks and over 2 feet diameter steel pipe culvert; 9.5 feet southwesterly from the most southwesterly rail fro railroad tracks; 37.5 feet northeasterly from telephone pole No. GT109368. City of Morgan Hill
Elevation= 353.25' (NAVD '88)

Flood Zone:
Project lies within Flood Zone AH: Flood depths of 1-3 feet (usually areas of ponding); Base flood elevations determined.
Base Flood Elevation = 354.00'

Underground Utility Note:
Observed surface evidence of utility lines including facilities, appurtenances and markings were used in depicting the location of underground utilities shown on these plans. However, lacking excavation, the exact location and depth of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, the client is advised that excavation may be necessary.

Construction Staking Note:
Owner's Engineer shall provide construction staking for all improvements shown. It shall be the contractor's responsibility to verify the accuracy of all staking prior to the installation of all improvements shown on these plans. It is recommended that the contractor check line and grade from at least three (3) stakes provided. Any descrepancies shall be reported immediately to MH engineering Co. or the Owner's representative. The contractor shall also field verify all existing tulities' location and elevation prior to the installation of any proposed utilities. Any discrepancies shall be reported to MH engineering Co. or the Owner's representative.

Underground Service Alert Note
Observed surface evidence of utility lines including facilities, appurtenances, and markings were used in depicting the locations of the underground features shown on these plans. Underground features depicted are approximate and it is the responsibility of the contractor to determine the actual location and depth of underground utilities prior to starting excavation.
Call USA North: 1.800.227.2600 OR 811



Abbreviations

AC	Asphalt Concrete	HP	High Point
BC	Beginning of Curve	INV	Invert
BVC	Beginning of Vertical Curve	JP	Joint Pole
BW	Back of Walk	LP	Low Point
℄	Centerline	Max	Maximum
CL D/W	Centerline Driveway	Min	Minimum
CMP	Corrugated Metal Pipe	NG	Natural Ground
CO	Clean Out	PB	Pull Box
DI	Drop Inlet	ℙ	Property Line
DIP	Ductile Iron Pipe	PSE	Public Service Easement
DWY	Driveway	PSDE	Private Storm Drain Easement
EC	End of Curve	PVI	Point of Vertical Intersection
EG	Existing Ground	PUE	Public Utility Easement
ELCT	Electrolier	RCP	Reinforced Concrete Pipe
EP	Edge of Pavement	R/W	Right of Way
ER	End of Return	SDMH	Storm Drain Manhole
EVC	End of Vertical Curve	SSMH	Sanitary Sewer Manhole
EX, EXST	Existing	Std	Standard
FC	Flush Curb	SW	Sidewalk
FF	Finish Floor	TBM	Temporary Benchmark
FG	Finish Grade	TC	Top of Curb
FL	Flowline	TWC	Top of Wedge Curb
GB	Grade Break	Typ	Typical

09/16/2022 9:32am
FOR PLANCHECK ONLY
REGISTERED PROFESSIONAL ENGINEER HARINDER S SINGLA C49717 STATE OF CALIFORNIA
FOR PLANCHECK ONLY
signature shall be printed upon approval

NO.	DESCRIPTION	DATE	BY

REVISIONS

WORK ACCEPTED: INSPECTOR:
BY: DATE:

City of Morgan Hill
Public Works Department
17575 PEAK AVE. MORGAN HILL, CA 95037
(408) 776-6480 FAX (408) 779-7236

DRAWN: KW	DESIGN: HS	HOR. 1"=40'
CHECKED: CH	DATE:	VERT.
APPROVED:	DATE:	JOB NO. 221005.1

Scott C. Cowe RCE 58879 CITY ENGINEER EXP. DATE 06-30-2021

SUPERVISED BY:
SIGNATURE DATE

MH engineering Co.
SUBDIVISIONS - LAND PLANNING - LAND SURVEYS
16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037
(408) 779-7381 FAX: (408) 226-5712

Site Topography & Prelminary Demo Plan
The Gates
MORGAN HILL CALIFORNIA

CITY FILE NO. SR2021-0020
PLAN SET: 6/28/22
DRAWING: **C.3** of 13

Site Topography & Prelminary Demo Plan
The Gates

Plotted: 09/20/2022 9:34am By: Harrinder Singla, C49717 File Name: P:\2022\221005 Jarvis & Monterey\Engineering\Site Plan\221005 Site Plan.dwg

MH engineering Co.
16075 Vineyard Blvd. Morgan Hill, CA 95037 - (408) 779-7381

Attachment B:
Central Coast Performance Requirement Checklist

LOW IMPACT DEVELOPMENT

AND

POST-CONSTRUCTION

STORMWATER MANAGEMENT REQUIREMENTS

APPLICANT PACKET

FOR PROJECTS IN SOUTH SANTA CLARA COUNTY

COUNTY OF SANTA CLARA

REV 6/11/15

Post Construction Stormwater Management Requirements
Project Requirements Determination

PROJECT INFORMATION

County File No: GPA2021-0005

Project Name: **The Gates** APN#: **764-10-013 & 015**

Project Address: **18545 & 18565 Monterey Rd. - 764-10-013 & 015**

Cross Streets: **Monterey Rd & Jarvis Dr.**

Applicant/Developer Name: **City Ventures Homebuilders, LLC**

Project Phase(s): 1 of 1 Engineer: **Kristian Wallace, PE**

Project Type (Check all that apply): ☐ New Development ☐ Redevelopment
☐ Residential ☐ Commercial ☐ Industrial ☒ Mixed Use ☐ Public ☐ Institutional
☐ Restaurant ☐ Uncovered Parking ☐ Retail Gas Outlet ☐ Auto Service (SIC code)____
☐ Other _____

Project Description: **Mixed use development with 49 Residential Units and 5 Commercial Units.**

Project Watershed/Receiving Water (creek, river): **Fisher Creek**

1. Total Project Area	**174,172**	ft^2
2. Pre-Project		
(a) Impervious Area	**0**	ft^2
(b) Pervious Area	**174,172**	ft^2
3. Post-Project		
(a) Replaced Impervious Area	**0**	ft^2
(b) New Impervious Area	**112,024**	ft^2
(c) Total Post-Project Impervious Area (*sum of Line 3a and Line 3b*)	**112,024**	ft^2
(d) Post-Project Pervious Area	**62,148**	ft^2
Net Impervious Area		
4. Reduced Impervious Area Credit *(Line 2a minus Line 3c)*	**0**	ft^2
5. Net Impervious Area *(Line 3c minus Line 4)*	**112,024**	ft^2

6. Is Line 3c greater than or equal to 2,500 sq. ft?

☐ No, the project does not need to meet Post-Construction Stormwater Management Requirements **- STOP HERE**.

☒ Yes, the project is subject to Performance Requirement No. 1: Site Design and Runoff Reduction. Complete the **Site Design and Runoff Reduction Checklist** on **Page 4**. Continue to #7.

7. Is the Project a detached single-family home?

☒ No, go to #8.

☐ Yes, continue to #7.a. below.

7a. Is Line #5, Net Impervious Area greater than or equal to 15,000 sq ft?

☐ No, the project does not have any additional requirements – **STOP HERE**.

☒ Yes, this project is subject to Performance Requirement No. 2: Water Quality Treatment. Complete the **Water Quality Treatment Checklist** on **Page 6**. Continue to #7.b.

☒ Yes, this project is subject to Performance Requirement No. 3: Runoff Retention. Complete the **Runoff Retention Checklists** on **Pages 8-11**. Continue to #7.b.

7b. Is Line #3.c, amount of impervious surface created and/or replaced, greater than or equal to 22,500 sq ft?

☐ No, go to #12.

☒ Yes, this project is subject to Performance Requirement No. 4: Peak Management (refer to the Stormwater Management Guidance Manual for instructions).
Go to #12.

8. For projects that are not detached single family homes, is Line #5, Net Impervious Area, greater than or equal to 5,000 sq ft?

☐ No, the project does not have any additional requirements – **STOP HERE**.

☒ Yes, this project is subject to Performance Requirement No. 2 Water Quality Treatment. Complete the **Water Quality Treatment Checklist** on **Page 6**. Continue to #9.

9. Is Line #3.c, amount of impervious surface created and/or replaced, greater than or equal to 15,000 sq ft?

☐ No, go to #11.

☒ Yes, this project is subject to Performance Requirement No. 3 Runoff Retention. Complete all **Runoff Retention Checklists** on **Pages 8-11**, as applicable. Continue to #10.

10. Is Line #3.c, amount of impervious surface created and/or replaced, greater than or equal to 22,500 sq ft?

☐ No. Continue to #11.

☒ Yes, this project is subject to Performance Requirement No. 4: Peak Management (refer to the Stormwater Management Guidance Manual for instructions). Continue to #11.

11. Is there a pollutant generating activity or source included in the project (e.g., restaurants, grocery stores, food service operations, outdoor storage, vehicle service facilities, retail gas outlets, outdoor parking lots, loading docks, pools, spas, or fountains)?

☐ No, go to #12.

☒ Yes, your Project is required to implement structural or operational source control measures. Complete the **Source Control Checklist** on **page 5**. Continue to #12.

12. **Operation and Maintenance Information**

a) Property Owner's Name **City Ventures Homebuilders, LLC**

b) Responsible Party for Stormwater Treatment/Hydromodification Control O&M:

i. Name: **City Ventures Homebuilders, LLC**

ii. Address: **444 Spear St., St. 200, San Francisco, CA 94105**

iii. Phone/E-mail: **646.522.4260 / samantha@cityventures.com**

13. Submit a Stormwater Control Plan with the required information, and complete the **Stormwater Control Plan Checklist** on **page 12**.

☒ Yes **See Improvement Plan Sheets C.9**

☐ No

File No.: GPA2021-0005

PERFORMANCE REQUIREMENT NO. 1: SITE DESIGN AND RUNOFF REDUCTION

Certification

	DESIGN STRATEGY	INCORPORATED INTO PROJECT?
1.	Limit disturbance of creeks and natural drainage features. *No jurisdictional creeks were disturbed in the proposed development. An existing drainage ditch is being backfilled and culverts extended across the project to maintain existing drainage patterns*	☐ **No**
2.	Minimize compaction of highly permeable soils.	☐ **yes**
3.	Limit clearing and grading of native vegetation at the site to the minimum area needed to build the project, allow access, and provide fire protection.	☐ **yes**
4.	Minimize impervious surfaces by concentrating improvements on the least sensitive areas of the site, while leaving the remaining land in a natural undisturbed state.	☐ **yes**
5.	Minimize stormwater runoff by implementing one or more of the following design measures:	☐ **yes**
	a) Direct roof runoff into cisterns or rain barrels for reuse.	☐ **no**
	b) Direct roof runoff onto vegetated areas safely away from building foundations and footings. *yes, runoff is routed through vegetated areas and vegetated swales to underground storage system wherever possible*	☐ **yes**
	c) Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas safely away from building foundations and footings. *yes, sidewalk, driveway, walkway and patio runoff is directed over adjacent vegetation and collected in an underground storage system wherever possible.*	☐ **yes**
	d) Direct runoff from driveways and/or uncovered parking lots onto vegetated areas safely away from building foundations and footings.	☐ **no**
	e) Construct bike lanes, driveways, uncovered parking lots, sidewalks, walkways, and patios with permeable surfaces.	☐ **no**

I, Kristian Wallace, PE, acting as the Project Engineer for City Ventures Homebuilders, LLC project, located at 18545 & 18565 Monterey Rd., hereby state that the Site Design and Runoff Reduction design strategies indicated above have been incorporated into the design of the project.

Signature

REGISTERED PROFESSIONAL ENGINEER
KRISTIAN A. WALLACE
No. 93207
EXP. 03-31-2024
CIVIL
STATE OF CALIFORNIA

6/16/2022
Date

REV 6/11/15

SOURCE CONTROL CHECKLIST

On-site Source Control Measures	Incorporated Into Project?
Wash area/racks, drain to sanitary sewer or septic system[1]	☐ yes
Covered dumpster area, drain to sanitary sewer/septic system[1] or landscaped area	☐ yes
Accessible cleanout for draining swimming pool/spa/fountain	☐ n/a
Parking garage floor drains plumbed to sanitary sewer[1]	☐ n/a
Fire sprinkler test water/condensate drain lines drain to sanitary sewer/septic system[1] or landscaped area	☐ yes
Interior floor drains/boiler drain lines plumbed to sanitary sewer	☐ yes
Beneficial landscaping/IPM (minimize irrigation, runoff, pesticides and fertilizers; promotes treatment)	☐ yes
Outdoor material storage protection	☐ n/a
Covers, drains for loading docks, maintenance bays, fueling areas	☐ n/a
Maintenance (pavement sweeping, catch basin cleaning, good housekeeping)	☐ yes
Storm drain labeling	☐ yes
Other[2] **all proposed runoff routed through vegetated areas**	☐ yes

Notes:

[1] Subject to sanitary sewer authority and/or Department of Environmental Health requirements.

[2] See CASQA Stormwater BMP Handbook for New Development and Redevelopment for additional BMPs for vehicle service repair facilities, fuel dispensing areas, industrial processes, rooftop equipment and other pollutant generating activities and sources. https://www.casqa.org/resources/bmp-handbooks/new-development-redevelopment-bmp-handbook

 File No.: GPA2021-0005

PERFORMANCE REQUIREMENT NO. 2: WATER QUALITY TREATMENT

Certification

ON-SITE WATER QUALITY TREATMENT MEASURES	INCORPORATED?
1. Low Impact Development (LID) Treatment Systems designed to retain stormwater runoff generated by the 85th percentile 24-hour storm. Stormwater Control Measures Implement (check all that apply, design documentation is required)	
a) Harvesting and Use,	☐ No
b) Infiltration,	☐ Yes
c) Evapotranspiration	☐ Yes
2. Biofiltration Treatment Systems[1] – with the following design parameters:	
a) Maximum surface loading rate appropriate to prevent erosion, scour and channeling within the biofiltration treatment system itself and equal to 5 inches per hour, based on the flow of runoff produced from a rain event equal to or at least: (a) 0.2 inches per hour intensity; or (b) Two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depth	☐ yes
b) Minimum surface reservoir volume equal to the biofiltration treatment system surface area times a depth of 6 inches	☐ yes
c) Minimum planting medium depth of 24 inches. The planting medium must sustain a minimum infiltration rate of 5 inches per hour throughout the life of the project and must maximize runoff retention and pollutant removal. A mixture of sand (60%-70%) meeting the specifications of American Society for Testing and Materials (ASTM) C33 and compost (30%-40%) may be used. A Project may utilize an alternative planting medium if it demonstrates its planting medium is equal to or more effective at attenuating pollutants than the specified planting medium mixture.	☐ yes
d) Proper plant selection[2]	☐ yes
e) Subsurface drainage/storage (gravel) layer with an area equal to the biofiltration treatment system surface area and having a minimum depth of 12 inches	☐ yes
f) Underdrain with discharge elevation at top of gravel layer	☐ No underdrain provided
g) No compaction of soils beneath the biofiltration facility (ripping/loosening of soils required if compacted)	☐ yes

h) No liners or other barriers interfering with infiltration, except for situations where lateral infiltration is not technically feasible ☐ Yes

3. Non-Retention Based Treatment Systems – designed to meet at least one of the following hydraulic sizing criteria:

(a) Volume Hydraulic Design Basis – Treatment systems whose primary mode of action depends on volume capacity shall be designed to treat stormwater runoff equal to the volume of runoff generated by the 85th percentile 24-hour storm event, based on local rainfall data. ☐ Yes

(b) Flow Hydraulic Design Basis – Treatment systems whose primary mode of action depends on flow capacity shall be sized to treat: ☐ No
   (i) The flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or
   (ii) The flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.

I, Kristian Wallace, PE, acting as the Project Engineer for City Ventures Homebuilders, LLC project, located at 18545 & 18565 Monterey Rd., hereby state that the Water Quality Treatment Measures indicated above have been incorporated into the design of the project.

Signature

REGISTERED PROFESSIONAL ENGINEER
KRISTIAN A. WALLACE
No. 93207
EXP. 03-31-2024
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Date

[1] Facilities or a combination of facilities, of a different design than in Item #2 may be permitted if all of the following measures of equivalent effectiveness are demonstrated: 1) equal or greater amount of runoff infiltrated or evapotranspired; 2) equal or lower pollutant concentrations in runoff that is discharged after biofiltration; 3) equal or greater protection against shock loading and spills; and 4) equal or greater accessibility and ease of inspection and maintenance.
[2] Technical guidance for designing bioretention facilities is available from the Central Coast LID Initiative. The guidance includes design specifications and plant lists appropriate for the Central Coast climate. (http://www.centralcoastlidi.org/Central_Coast_LIDI/LID_Structural_BMPs.html)

PERFORMANCE REQUIREMENT NO. 3 – RUNOFF RETENTION

Design Rainfall Events & Treatment Requirements for Watershed Management Zones (WMZs)[1]

WMZ[2]	Treatment Options & Design Rainfall	Check Applicable WMZs
WMZ 1	Via optimized infiltration[3], prevent offsite discharge from events up to the 95th percentile 24-hour rainfall event as determined from local rainfall data.	☒
WMZ 2	Via storage, rainwater harvesting, infiltration, and/or evapotranspiration, prevent offsite discharge from events up to the 95th percentile 24-hour rainfall event as determined from local rainfall data.	☐
WM 4 *	Via optimized infiltration[2], prevent offsite discharge from events up to the 95th percentile 24-hour rainfall event as determined from local rainfall data.	☐
WMZ 5	Via optimized infiltration[2] prevent offsite discharge from events up to the 85th percentile 24-hour rainfall event as determined from local rainfall data.	☐
WMZ 6	Via storage, rainwater harvesting, infiltration, and/or evapotranspiration, prevent offsite discharge from events up to the 85th percentile 24-hour rainfall event as determined from local rainfall data.	☐
WMZ 9	Via storage, rainwater harvesting, infiltration, and/or evapotranspiration, prevent offsite discharge from events up to the 85th percentile 24-hour rainfall event as determined from local rainfall data.	☐
WMZ 10 *	Via optimized infiltration[2], prevent offsite discharge from events up to the 95th percentile 24-hour rainfall event as determined from local rainfall data	☐

1. Includes only those WMZs located in Santa Clara County.
2. Use the Santa Clara County Department of Planning and Development Online Property Profile database to determine the WMZ in which your project is located: http://www.sccplanning.org/gisprofile/

   Search for your project site by APN or Address to retrieve the Property Profile. At the bottom of the property profile page, under Special Resources/Hazards/Constraints Areas, look for the "Central Coast Watershed Management Zone Value".
3. Storage, rainwater harvesting, and/or evapotranspiration may be used when infiltration is optimized.

* Applicable only to those areas that overlay designated Groundwater Basins.

PERFORMANCE REQUIREMENT NO. 3 – RUNOFF RETENTION

LID Site Assessment Checklist

ITEMS TO DOCUMENT:		INCLUDED IN PROJECT DOCUMENTS?
1.	Site topography	☐ Yes
2.	Hydrologic features including contiguous natural areas, wetlands, watercourses, seeps, or springs	☐ Yes
3.	Depth to seasonal high groundwater	☐ Yes
4.	Locations of groundwater wells used for drinking water	☐ Yes
5.	Depth to an impervious layer such as bedrock	☐ N/A
6.	Presence of unique geology (e.g., karst)	☐ N/A
7.	Geotechnical hazards	☐ N/A
8.	Documented soil and/or groundwater contamination	☐ N/A
9.	Soil types and hydrologic soil groups	☐ No
10.	Vegetative cover/trees	☐ Yes
11.	Run-on characteristics (source and estimated runoff from offsite which discharges to the project area)	☐ N/A
12.	Existing drainage infrastructure for the site and nearby areas including the location of municipal storm drains	☐ Yes
13.	Structures including retaining walls	☐ Yes
14.	Utilities	☐ Yes
15.	Easements	☐ Yes
16.	Covenants	☐ No
17.	Zoning/Land Use	☐ Yes
18.	Setbacks	☐ Yes
19.	Open space requirements	☐ N/A
20.	Other pertinent overlay(s)	☐ N/A

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PERFORMANCE REQUIREMENT NO. 3 – RUNOFF RETENTION

LID Site Design Measures

The Project Engineer shall certify the Project design optimizes the use of the following design measures to augment the design strategies required by Performance Requirement No. 1. Initial each runoff retention measure that has been incorporated and optimized into the design or mark NA if not applicable.

PERFORMANCE REQUIREMENT NO. 3 CERTIFICATION OF LID SITE DESIGN MEASURES

	DESIGN MEASURE	INCORPORATED/ OPTIMIZED
1.	Defining the development envelope, identifying the protected areas, and identifying areas that are most suitable for development and areas to be left undisturbed	Incorporated
2.	Identifying conserved natural areas, including existing trees, other vegetation, and soils (shown on the plans)	Incorporated
3.	Limit the overall impervious footprint of the project	Incorporated
4.	Design of streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided that public safety or mobility uses are not compromised	Incorporated
5.	Set back development from creeks, wetlands, and riparian habitats	N/A
6.	Design conforms the site layout along natural landforms	Optimized
7.	Design avoids excessive grading and disturbance of vegetation and soils	Optimized

I, Kristian Wallace, PE, acting as the Project Engineer for City Ventures Homebuilders, LLC project, located at 18545 & 18565 Monterey Rd., hereby state that LID Site Design Measures initialed have been incorporated into the design of the project.

Signature

REGISTERED PROFESSIONAL ENGINEER
KRISTIAN A. WALLACE
No. 93207
EXP. 03-31-2024
CIVIL
STATE OF CALIFORNIA

6/16/2022
Date

File No.: GPA2021-0005

PERFORMANCE REQUIREMENT NO. 3 – RUNOFF RETENTION

TECHNICAL INFEASIBILITY CHECKLIST

	Site Conditions	Check Applicable
1.	Depth to seasonal high groundwater limits infiltration and/or prevents construction of subgrade stormwater control measures[3]	☐ N/A
2.	Depth to an impervious layer such as bedrock limits infiltration	☐ N/A
3.	Sites where soil types significantly limit infiltration	☐ N/A
4.	Sites where pollutant mobilization in the soil or groundwater is a documented concern	☐ N/A
5.	Space constraints (e.g., infill projects, some redevelopment projects, high density development)	☐ N/A
6.	Geotechnical hazards	☐ N/A
7.	Stormwater Control Measures located within 100 feet of a groundwater well used for drinking water	☐ N/A
8.	Incompatibility with surrounding drainage system (e.g., project drains to an existing stormwater collection system whose elevation or location precludes connection to a properly functioning treatment or flow control facility)	☐ N/A

[3] According to the CASQA Frequently Asked Questions about LID, "some MS4 permits and BMP guidance manuals require anywhere from 3-10 feet of separation from the groundwater level for infiltration practices. This distance depends on the soil type, pollutants of concern, and groundwater use. In some cases, however, where there may be groundwater or soil contamination, LID infiltrative practices may be restricted completely. (p. 7 in https://www.casqa.org/Portals/0/LID/CA_LID_FAQ_06-28-2011.pdf)

 File No.: GPA2021-0005

STORMWATER CONTROL PLAN CHECKLIST

Stormwater Control Plan Required Contents	**PR Level**	**Done?**
1. Project Information	All	
• Project name		☑
• Application number		☑
• Address and assessor's parcel number		☑
• Name of Applicant		☑
• Project Phase number (if project is being constructed in phases)		☑
• Project Type (e.g., commercial, industrial, multi-unit residential, mixed-use, public), and description		☑
2. Project Areas	All	
• Total project site area		☑
• Total new impervious surface area		☑
• Total replaced impervious surface area		☑
• Total new pervious area		☑
• Calculation of Net Impervious Area		☑
3. Statement of Performance Requirements that apply to the project:	All	
• Performance Requirement No.1 – Site Design and Runoff Reduction		☑
• Performance Requirement No.2 – Water Quality Treatment		☑
• Performance Requirement No. 3 – Runoff Retention		☑
• Performance Requirement No. 4 – Peak Management		☑
4. Delineation of Drainage Management Areas (DMAs)	All	☑
5. Summary of Site Design and Runoff Reduction Performance Requirement measures selected for the project (see PR-1 checklist)	PR-1	☑
6. Description of Runoff Reduction Measures and Structural Stormwater Control Measures, by Drainage Management Area and for entire site	PR-2, 3, and 4	☑
7. Water quality treatment calculations used to comply with the Water Quality Treatment Performance Requirement and any analysis to support infeasibility determination	PR-2	☑
8. Documentation certifying that the selection, sizing, and design of the Stormwater Control Measures meet the full or partial Water Quality Treatment Performance Requirements (see PR-2 checklist)	PR-2	☑

Stormwater Control Plan Required Contents	**PR Level**	**Done?**
9. Statement that Water Quality Treatment Performance Requirement has been met on-site, or, if not achievable: • Documentation of the volume of runoff for which compliance cannot be achieved on-site and the associated off-site compliance requirements • Statement of intent to comply with Water Quality Treatment Performance Requirement through Alternative Compliance	PR-2	☑
10. LID Site Assessment Summary (see PR-3 checklist)	PR-3	☑
11. LID Site Design Measures Used (see PR-3 checklist)	PR-3	☑
12. Supporting calculations used to comply with the applicable Runoff Retention Performance Requirements	PR-3	☑
13. Documentation demonstrating infeasibility where Site Design and Runoff Reduction measures and retention-based Stormwater Control Measures cannot retain required runoff volume	PR-3	☑
14. Documentation demonstrating percentage of the project's Equivalent Impervious Surface Area dedicated to retention-based Stormwater Control Measures	PR-3	☑
15. Statement that Runoff Reduction Performance Requirement has been met on-site, or, if not achievable: • Documentation of the volume of runoff for which compliance cannot be achieved on-site and the associated off-site compliance requirements • Statement of intent to comply with Runoff Retention Performance Requirements through an Alternative Compliance agreement	PR-3	☑
16. Supporting calculations used to comply with the applicable Peak Management Performance Requirements	PR-4	☑
17. Documentation demonstrating infeasibility where on-site compliance with Peak Management Performance Requirements cannot be achieved	PR-4	☑
18. Statement that Peak Management Performance Requirement has been met on-site, or, if not achievable: • Documentation of the volume of runoff for which compliance cannot be achieved on-site and the associated off-site compliance requirements • Statement of intent to comply with Peak Management Requirements through an Alternative Compliance agreement		☑
19. O&M Plan for all structural SCMs to ensure long-term performance	PR-2, 3, and 4	☑
20. Owner of facilities and responsible party for conducting O&M	PR-2, 3, and 4	☑

Attachment C:
Geotechnical Investigation Report

PRELIMINARY GEOTECHNICAL UPDATE

On

PROPOSED TOWNHOME AND COMMERCIAL DEVELOPMENT

At

18605 Monterey Road
Morgan Hill, California

For

City Ventures

By
Quantum Geotechnical, Inc.

Project No. H052.G
June 1, 2022

QUANTUM GEOTECHNICAL INC.

Project No. H052.G
June 1, 2022

Ms. Samantha Hauser
Senior Vice President of Development
City Ventures
444 Spear Street
Suite 200
San Francisco, CA 94105

Subject: Proposed Townhome and Commercial Development
18605 Monterey Road
Morgan Hill 8
Morgan Hill, California
PRELIMINARY GEOTECHNICAL UPDATE

Reference: Geotechnical Investigation Report
Project No. 10218.G
Gateway Center Business Park
By Terrasearch, Inc
Dated 7 May 2004

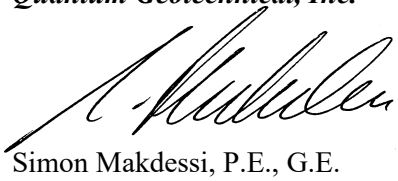
Dear Ms. Hauser:

In accordance with your authorization, ***Quantum Geotechnical, Inc.,*** has reviewed the previous referenced geotechnical investigation report for the purpose of providing an updated geotechnical report for the subject project located in Morgan Hill, California

The accompanying report presents a summary of the findings and an update the geotechnical recommendations from the previous referenced report. Our update indicates that development of the site for the proposed new residential and commercial development is feasible provided the recommendations of this report are carefully followed and are incorporated into the project plans and specifications.

Should you have any questions relating to the contents of this report or should additional information be required, please contact our office at your convenience.

Sincerely,
Quantum Geotechnical, Inc.



Simon Makdessi, P.E., G.E.
President



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GEOTECHNICAL IVESTIGATION

PURPOSE AND SCOPE

The purpose of this update report was to review the referenced previous geotechnical investigation report performed in 2007, summarize the surface and subsurface soil conditions at the subject site, and prepare update geotechnical design criteria and recommendations for the grading of the site, the design of foundations for the proposed development and the construction of other related facilities on the property.

Our geotechnical update involved the following tasks:

a) An initial reconnaissance of the site by the Soil Engineer to observe local and regional site conditions and document the current condition of the site.

b) Review the referenced geotechnical report and any other available published and unpublished geotechnical data for the site and surrounding area.

c) Perform four (4) percolation tests to a depth of 5 to 6 feet at locations designated by the project civil engineer

d) Preparation of a stand alone design level geotechnical update report summarizing the previous geotechnical work, and provide geotechnical recommendations pertinent to the project, including 2019 CBC seismic design criteria, grading, foundations, slab-on-grade construction, percolation tests results, pavement section design, retaining walls, and drainage.

PROPOSED DEVELOPMENT

It is our understanding that the proposed project consists of developing the site for the construction of seven residential townhome buildings, one commercial building and associated improvements including a large detention pond. Preliminary development plans indicate that the site will receive approximately 2 feet of import soil to raise the site. The buildings will be of wood frame construction and the townhomes will be founded on a post-tensioned slab foundation, while the commercial building will be supported on a conventional spread footing in conjunction with a slab-on-grade floor.

SITE LOCATION AND DESCRIPTION

The site is located in the northern part of Morgan Hill within level terrain. The site is triangular in shape, approximately 3.0 acres in size and has a culvert that runs through the middle of the site. The site is bounded by Monterey Road to the east, railroad tracks to the west and a commercial development to the north. Currently, the site is vacant and covered with short to tall grasses, some shrubs and trees. The surface grade of the site is uneven and it appears that some grading has been performed in the by excavating some areas 3 to 4 feet in depth and creating stockpiles up to 4 feet high. Based on a review of historic aerial photos from Google Earth®, it is not clear as to when such grading may have occurred, but it likely appears that the grading was performed in 2004, the same year the referenced geotechnical investigation was performed.

GENERAL GEOLOGIC CONDITIONS

The site is located within the Coast Ranges Geomorphic Province of California. Throughout the Cenozoic Era, the western part of California has been affected by tectonic forces associated with lateral or transform plate motion between the North American and Pacific crustal plates, which has produced a complex system of northwest-trending faults - the San Andreas, Hayward, and Calaveras Fault systems being the most prominent. Uplift, erosion and subsequent re-deposition of sedimentary rocks within this province have been driven primarily by the northwest-southeast directed strike-slip movement of the tectonic plates and the associated northeast oriented compressional stress. The northwest-trending coastal mountain ranges are the result of an orogeny believed to have been occurring since the Pleistocene epoch (approximately 2-3 million years before present).

Based on a review of geologic maps, the site is underlain by Pleistocene age alluvial fan deposits. These deposits will generally consist of well consolidated coarser grained material nearer to the crown of the fan and around the area of paleochannels, and finer grained silt and clay deposits nearer to the toe.

The USGS Quaternary Fault database provides a record of quaternary fault surface traces based on historic mapping and observations. Table I, below, lists the USGS Quaternary active fault traces located within 10 miles of the site location.

The California Geological Survey seismic hazard zone report for the Morgan Hill quadrangle (2) excludes the site from areas mapped for liquefaction, landslide, and fault surface rupture hazards. According to the California Department of Water Resources, Water Data Library (1), groundwater may be encountered around 20 feet below ground surface within the site vicinity.

Table I
List of Quaternary Faults

Fault ID	Distance from Site (mi)	USGS Activity Level (yrs)
Calaveras	1.0	< 150 ya
Tres Pinos	2.0	<15 kya
Quien Sabe	3.3	< 15 kya
Sargent	3.7	< 15 kya
San Andreas	5.6	< 150 ya
Vergeles	6.1	1.6 mya – 15 kya

Note: mya and kya are abbreviations for million years (mya) and thousand years (kya) ago.

INVESTIGATION

A total of four percolation tests were performed between April 16 and April 20, 2022, at the locations shown on the attached Figure 1, Site Plan, attached to Appendix A.

The percolation tests were performed by drilling an 8 inch diameter hole to depths ranging from 5’7” to 8’3” to the base of the pond design elevation of 344.35. The percolation hole comprised placing a 4 inch perforated pipe centered in the hole on a bed of 6 inches of gravel, with the pipe extending a few inches above the ground surface, and filling the annulus with pea gravel to the ground surface. The material encountered in the test holes ranged from a silty sand to silty clay. Each percolation hole was filled with water to saturate the hole overnight.

The percolation test was performed the next day by filling water to the top and the drop in water level within the pipe was measured at 60 minute intervals. The depth was measured relative to the top of pipe. The test was terminated when the water level drop was similar for 3 consecutive readings. The average water level drop during the last 3 readings is recorded as the percolation rate. The measured percolation rates are as follows;

Percolation Test #	Depth (ft)	Percolation Rate (in/hr)
220	5'7"	3
221	8'3"	3
222	8'0"	2
223	6'9"	5

SUBSURFACE CONDITIONS

Terrasearch advanced a total of three borings to a maximum depth of 30 feet. The locations of the the borings are unknown as the site plan was not included in the copy of the report provided. The subsurface conditions as encountered in the three previous borings somewhat varied in the upper 6 to 9 feet, but generally consisted of layers of clay, silty sand, sand and clayey sand in the upper 6 to 9 feet and then underlain by medium dense sand and gravel to 16 feet where very stiff to hard silty clay or clayey silt was encountered and extended to the maximum depth explored of 30 feet.

No groundwater was encountered in the borings. Fluctuations in the groundwater table may occur due to tidal influences, seasonal rainfall and urbanization or nearby development activities.

The near surface soil registered a Plasticity Index (PI) value of 12, indicating the material to be of low expansion potential.

A more thorough description and stratification of the soil conditions are presented on the respective "Logs of Test Borings" attached in Appendix A.

2019 CBC SEISMIC DESIGN CRITERIA

The seismic design should be in accordance with Chapter 16 of the 2019 California Building Code (CBC). The 2019 CBC utilizes the design procedures outlined in the ASCE 7-16 Standard.

Using the criteria in Chapter 20 of ASCE 7-16, the site is classified as Site Class D. The seismic design parameters have been developed using the online "Seismic Design Maps" tool by the Structural Engineering Association (SEA) and Office of Statewide Health Planning and Development (OSHPD) and a site location based on longitude and latitude. The parameters generated for the center of the site for a latitude 37.143025° N, and longitude 121.663553° W, are presented in the following Table II.

According to Section 11.4.8 of ASCE 7-16, a ground motion hazard analysis shall be performed when the coefficient S_1 has a value greater than or equal to 0.2 for Site Class D and E sites. A ground motion hazard analysis is excepted if the C_s value is determined by equation 12.8-2 of ASCE 7-16. This is to be determined by the structural engineer. In the event that the calculated C_s values do not trigger a ground motion hazard analysis, the following parameters may be used.

Table II
2019 CBC Seismic Design Criteria

Seismic Parameter	Coefficient	Value
Site Class		D
Peak Ground Acceleration (Site Modified)	PGA_M	0.742
Mapped MCE Spectral Acceleration at Short-Period 0.2 secs	S_s	1.617
Mapped MCE Spectral Acceleration at a Period of 1.0s	S_1	0.600
Adjusted MCE, 5% Damped Spectral Response Acceleration at Short Period of 0.2s	S_{MS}	1.617
Adjusted MCE, 5% Damped Spectral Response Acceleration at Period of 1.0s	S_{M1}	1.020
Design 5% Damped Spectral Response Acceleration at Short Period of 0.2s for Occupancy Category I/II/III	S_{DS}	1.078
Design 5% Damped Spectral Response Acceleration at Period of 1.0s for Occupancy Category I/II/III	S_{D1}	0.680

LIQUEFACTION POTENTIAL EVALUATION

Liquefaction occurs primarily in relatively loose, saturated, cohesionless soils. Under earthquake stresses, these soils become “quick”, lose their strength and become incapable of supporting the weight of the overlying soils or structures. The data used for evaluating liquefaction potential of the subsurface soils consisted of the penetration resistance, the soil gradation, the relative density of the materials, and the groundwater level.

Loose to medium dense cohesionless soil such as sands and some soft to firm silts and low plasticity clays are potentially liquefiable, while very stiff to hard silts and clays and dense and very dense cohesionless sands and gravels are considered to have a very low potential for liquefaction. Based on the data from the borings, no potentially liquefiable layers were encountered and the potential of liquefaction at this site is considered nil.

DISCUSSIONS, CONCLUSIONS AND UPDATED RECOMMENDATIONS

GENERAL

1. From a geotechnical point of view, the site is suitable for the construction of the proposed residential and commercial development provided the recommendations presented in this report are incorporated into the project plans and specifications.

2. The most prominent geotechnical feature of this site is the presence of low expansive clay or sand materials within the upper 6 to 9 feet, and the presence of large stockpiles from previous grading activities.

3. Due to the previous grading activities, some areas of site disturbance may have occurred and some areas of loose fill may be present in areas. Any areas of loose fill must be removed to native ground, and can be reused as engineered fill. Hand digging into the stockpiles revealed a mixture of silt, clay and some sand and gravel material, which is suitable to re-use as engineered fill.

4. The proposed structures may be satisfactorily supported on structural post tensioned slabs or a spread footing foundation. Specific foundation design recommendations are provided under the heading Foundations.

GRADING

5. The grading requirements presented herein are an integral part of the grading specifications presented in Appendix B of this report and should be considered as such.

6. Currently, the site contains significant vegetation and stripping of vegetation will be required. Vegetation conditions may be different at the time of grading, and the extent of any stripping, mowing or discing as part of site preparation, will be revaluated at the time of grading. Any strippings will be stockpiled in an approved area that is unaffected by grading operations until their future use. Organically contaminated soil material may be utilized in landscape areas located outside the building footprint.

7. After site preparation, and removal of any areas of old fill, the top 8 inches of exposed ground should be scarified and compacted to a degree of relative compaction of at least 90% at 2 percent above optimum moisture content as determined by ASTM D1557-12 Laboratory Test Procedure.

8. The site may be brought to the desired finished grades by placing engineered fill in lifts of 8 inches in uncompacted thickness and compacting to a minimum relative compaction of 90% at 2 percent above optimum moisture content for lean clay soil as determined by ASTM D1557-12 Laboratory Test Procedure.

9. All soils encountered during our investigation except those within the top few inches of predominantly organic material, are suitable for use as engineered fill when placed and compacted at the recommended moisture content and provided it does not contain any debris.

SURFACE AND SUBSURFACE DRAINAGE

10. All finish grades should be provided with a positive gradient to an adequate discharge point in order to provide rapid removal of surface water runoff away from all foundations. No ponding of water should be allowed on the pad or adjacent to the foundations. Surface drainage must be designed by the project Civil Engineer and maintained by the property owners at all times. The pad should be graded in a manner that surface flow is to a controlled discharge system.

11. Lot slopes and drainage must be provided by the project Civil Engineer to remove all storm water from the pad and to minimize storm and/or irrigation water from seeping beneath the structures. Should surface water be allowed to seep under the structure, foundation movement resulting in structural cracking and damage will occur. Where possible, finished grades around the perimeter of the structures should be compacted and should be sloped at a minimum 2% gradient away from the exterior foundation. Surface drainage requirements constructed by the builder should be maintained during landscaping. In particular, the creation of planter areas confined on all sides by concrete walkways or decks and the residence foundation is not desirable since any surface water due to rain or irrigation becomes trapped in the planter area with no outlet. If such a landscape feature is necessary, surface area drains in the planter area or a subdrain along the foundation perimeter must be installed.

12. Continuous roof gutters are recommended. According to local government requirements, roof downspout and drain flows should be directed to at grade bio-filtration areas, or raised planter boxes next to the building perimeter, where possible. From a geotechnical and maintenance point of view it is undesirable to discharge water into at grade bio-filtration areas near foundations, because of the possibility of water ponding for sustained periods of time.

BIO-FILTRATION FACILITIES

13. As mentioned earlier, it is undesirable to discharge water into at grade bio-filtration areas near foundations, because of the possibility of water ponding for sustained periods of time, potentially creating excessive moisture related issues. However, certain design features could be made to minimize such potential effects. In addition, the property owners must always maintain the bio-filtration area to ensure that they are performing as designed and that water does not pond in the area for longer than 48 hours.

14. Typically, the bio-filtration areas consist of an 18 inch layer of sandy loam over 18 inches of permeable gravel material. The top of the bio-filtration area is typically approximately 1 foot below pad grade, therefore, the base of the bio-filtration area will be approximately 4 feet below pad grade. The base of the bio-filtration area will typically contain a perforated pipe to drain any water that may collect within 24 hours. In some situations, the bio-filtration areas may be located immediately adjacent the building structure.

15. Where bio-filtration areas are located closer than 5 feet of the building, the section of loose loam and gravel will provide reduced lateral support, and we recommend a deepened footing be constructed along the perimeter the building adjacent to the bio-filtration area and extending 3 feet beyond in plan length. The depth of the deepened footing will depend on how close the bio-filtration area is located to the building perimeter. As a guide, the footing is to be deepened such that when an imaginary line inclined at 45 degrees from the outside edge base of the footings, it extends below the base of the bio-filtration area excavation. Where bio-filtration areas are located further than 5 feet, no special design is required. Provided the bio-filtration facility is lined with an impermeable liner, no waterproofing of the deepened footing is required.

16. Where bio-filtration areas are located closer than 3 feet of street pavements, a deepened curb footing is required. Where bio-filtration areas are located closer than 1 foot of street pavements, because pavements do not have a positive connection to a deepened curb/footing, the deepened curb/footing may need to be designed as a retaining wall rigid enough to create minimal lateral deflections.

17. Where bio-filtration areas are located closer than 2 feet of hardscape areas, a deepened edge footing is required. The deepened edge should extend at least 1 foot below the subgrade. Where the bio-filtration area is immediately adjacent the hardscape, the deepened edge is to extend at least 3 inches below the base of the bio-filtration system.

FOUNDATIONS

13. Provided the site is prepared as recommended in the "Grading" section, a post-tensioned slab foundation may be satisfactorily used for the residential townhome buildings and a spread footing in conjunction with a slab-on-grade floor for the commercial building.

Post Tensioned Slab on Grade

14. Post-tensioned slabs should be designed using the following criteria which is based on the design method presented in the Post-Tensioning Institute, Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundations on Expansive Soils (PTI DC10.5-12), 2012. Using the relevant site soil and climatic parameters, the recommended geotechnical criteria for use in the design of the post-tensioned slabs is as follows;

	Swelling Mode	
	Center Lift	Edge Lift
Edge Moisture Variation Distance (e_m)	9.0 feet	5.1 feet
Differential Soil Movement (y_m)	0.59 inches	1.09 inches

The maximum allowable bearing pressure at the base of the slab and for localized thickened footings should not exceed 2,000 p.s.f. for dead plus sustained live loads.

15. As indicated earlier, bio-filtration areas may be designed close to the foundation. Where bio-filtration areas are located closer than 5 feet of the building, the section of loose loam and gravel, will provide reduced lateral support, and we recommend a deepened footing be constructed along the perimeter the building adjacent to the bio-filtration area and extending 3 feet beyond in plan length. The depth of the deepened footing will depend on how close the bio-filtration area to the building perimeter. As a guide, the footing is to be deepened such that when an imaginary line inclined at 45 degrees from the outside edge base of the footings, it extends below the base of the bio-filtration area excavation.

General Construction Requirements for Post-Tensioned Slab

16. Prior to construction of the slab, the slab subgrade should be observed by the Soil Engineer to verify that all under-slab utility trenches greater than 18 inches in width have been properly backfilled and compacted, and that no loose or soft soils are present on the slab subgrade.

17. The on site near surface soil is non-expansive and if the on-site soil is used to form the building pads, slab subgrade saturation and moisture conditioning is not required. If clayey import material is used to grade the site the slab subgrade should be soaked to saturation (minimum 5% above optimum) to a depth of 12 inches prior to placement of the capillary break or vapor retarder/barrier. This should be verified and approved by the Soil Engineer. The penetration of a thin metal probe to a depth of 10-12 inches generally indicates sufficient saturation.

18. The four (4) inch (minimum thickness) layer of gravel typically placed to provide a capillary break beneath concrete slab-on-grade floors may be omitted beneath the monolithically poured mat slab foundations provided that the slabs are at least 10 inches thick. If it is desired to use a 4 inch layer or thinner of gravel section, the gravel should consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination thereof. The aggregate shall be free from deleterious substances. It shall be of such quality that the absorption of water in a saturated dry condition does not exceed 3% of the oven dry weight of the sample. The material shall be ¾" minus material with no more than 3% passing the #200 sieve, as specified in Appendix C.

19. A moisture vapor retarder/barrier is recommended beneath all slabs-on-grade that will be covered by moisture-sensitive flooring materials such as vinyl, linoleum, wood, carpet, rubber,

rubber-backed carpet, tile, impermeable floor coatings, adhesives, or where moisture-sensitive equipment, products, or environments will exist. We recommend that design and construction of the moisture vapor retarder/barrier conform to Section 1805 of the 2013 CBC and relevant sections of American Concrete Institute (ACI) guidance documents 302.1R-04, 302.2R-06 and 360R-10.

20. The moisture vapor retarder/barrier can be placed above the 4 inches of gravel or directly on the soil subgrade and should consist of a minimum 10 mils thick polyethylene with a maximum perm rating of 0.1 in accordance with ASTM E 1745. Seams in the moisture vapor retarder/barrier should be overlapped no less than 6 inches or in accordance with the manufacturer's recommendations. Joints and penetrations should be sealed with the manufacturer's recommended adhesives, pressure-sensitive tape, or both. The contractor must avoid damaging or puncturing the moisture vapor retarder/barrier and repair any punctures with additional polyethylene properly lapped and sealed. The installation of the vapor retarder membrane must be in conformance with ASTM E1643.

21. A minimum of two inches of wetted sand should be placed over the vapor retarder membrane to facilitate curing of the concrete and to act as a cushion to protect the membrane. The perimeter of the mat should be thickened to bear on the prepared building pad and to confine the sand. During winter construction, sand may become saturated due to rainy weather prior to pouring. Saturated sand is not desirable because the sand cushion may become over saturated, and boil into the concrete causing undesirable structural monopolies of sand pockets within the slab. As an alternate, a sand-fine gravel mixture that is stable under saturated conditions may be used. However, the material must be approved by the Soil Engineer prior to use.

22. Alternatively, the sand layer may be eliminated provided the concrete has a maximum water/cement ratio of 0.45 and a 10 mil Class A vapor retarder membrane, such as Stego® Wrap. In any case, the vapor retarder/barrier should have a maximum perm rating of 0.3 in accordance with ASTM E 1745. Seams in the moisture vapor retarder/barrier should be overlapped no less than 6 inches or in accordance with the manufacturer's recommendations. Joints and penetrations should be sealed with the manufacturer's recommended adhesives, pressure-sensitive tape, or both. The contractor must avoid damaging or puncturing the vapor retarder/barrier and repair any punctures with additional polyethylene properly lapped and sealed.

23. Any exterior concrete flatwork such as steps, patios, or sidewalks should be designed independently of the slab, and expansion joints should be provided between the flatwork and the structural unit.

Spread Footing Foundations in Conjunction with Interior Concrete Slab-on Grade Floor for Commercial Building

24. Continuous and spread footing foundations should extend to a minimum depth of 18 inches below the lowest adjacent pad grade (trenching depth below slab subgrade elevation). At this depth, continuous footings may be designed for an allowable bearing pressure of 2,500 p.s.f. due to dead plus sustained live loads, and 3,300 p.s.f. due to all loads which include wind or seismic. Isolated spread footings for columns may be designed for an allowable bearing pressure of 2,800 p.s.f. due to dead plus sustained live loads, and 3,700 p.s.f. due to all loads which include wind or seismic. The specification of structural reinforcement for all foundations is to be performed by a structural engineer. The settlements of footings designed and constructed in accordance with the aforementioned criteria are estimated to be less than one-half inch. The differential settlement between individual column or wall footings can be estimated as the difference between the settlements at any two points and should not exceed one-quarter inch.

25. Lateral loads resulting from wind or earthquake may be resisted in the form of passive pressure on the site of footings and friction between the bottom of the footings and soils on which these are supported. The passive soil resistance against footings may be taken equal to a fluid having an equivalent fluid pressure of 250 p.c.f, below a depth of 1 foot. This assumes that the footings are placed neat against the soil face or that properly compacted backfill is placed in the space between the footings and the soil faces. A coefficient of friction of 0.30 may be used at the base of the footing.

26. It is expected that the interior concrete slab-on-grade floor may experience some cracking due to normal concrete shrinkage. To reduce the potential cracking of the concrete slab floor, the following are recommended:

a. Prior to construction of the slab, the slab subgrade should be observed by the Soil Engineer to verify that all under-slab utility trenches greater than 18 inches in width have been properly backfilled and compacted, and that no loose or soft soils are present on the slab subgrade.

c. Slabs should be underlain by a minimum of 4 inches of angular gravel or clean crushed rock material placed between the finished subgrade and the slabs to serve as a capillary break between the subsoil and the slab. The gravel or crushed rock material should consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination thereof. The aggregate shall be free from deleterious substances. It shall be of such quality that the absorption of water in a saturated dry condition does not exceed 3% of the oven dry weight of the sample. The material shall be ¾" minus material with no more than 3% passing the #200 sieve.

d. The thickness of the slab and reinforcement is to be determined by the project Structural Engineer. We recommend that the slabs be reinforced with reinforcing bars or welded wire fabric sheets. Wire mesh must not be used for reinforcement.

e. It is expected that moisture sensitive floor coverings will be used on the slab, and we recommend that a 15-mil or thicker vapor retarder membrane should be placed between the rock cushion and the slab to provide an effective vapor barrier and to minimize moisture condensation under floor coverings. It is further recommended that a two inch thick sand layer be placed on top of the membrane to assist in the curing of the concrete and to prevent puncture of the membrane. During winter construction, the sand may become saturated due to rainy weather prior to pouring. Saturated sand is not desirable because the sand cushion may become over saturated, and boil into the concrete causing undesirable structural monopolies of sand pockets within the slab. As an alternate, a sand-fine gravel mixture that is stable under saturated conditions may be used. However, the material must be approved by the Soil Engineer prior to use.

MISCELLANEOUS CONCRETE FLATWORK

27. Miscellaneous flatwork, driveways, and walkways may be designed with a minimum thickness of 4.0 inches. Control joints should be constructed to create squares or rectangles with a maximum spacing of 15 feet on large slab areas. Walkways should be separated from foundations with a thick expansion joint filler. Control joints should be constructed into walkways at a maximum of 5 feet spacing.

RETAINING WALLS

28. Retaining walls should be designed to resist lateral pressures exerted from a media having an equivalent fluid weight as follows:

Active Condition	=	45 p.c.f. for horizontal backslope
At-rest Condition	=	65 p.c.f.
Passive Condition	=	300 p.c.f.
Coefficient of Friction	=	0.35

29. For a non-horizontal backslope, the active condition equivalent fluid weight can be increased by 1.5 p.c.f. for each 2 degree rise in slope from the horizontal.

30. Active conditions occur when the top of the wall is free to move outward. At-rest conditions apply when the top of wall is restrained from any movement.

31. It should be noted that the effects of any surcharge, traffic or compaction loads behind the walls must be accounted for in the design of the walls.

32. The above criteria are based on fully drained conditions. If drained conditions are not possible, then the hydrostatic pressure must be included in the design of the wall. An additional linear distribution of hydrostatic pressure of 63 p.c.f. should be adopted, in this case.

33. In order to achieve fully-drained conditions, a drainage filter blanket should be placed behind the wall. The blanket should be a minimum of 12 inches thick and should extend the full height of the wall to within 12 inches of the surface. If the excavated area behind the wall exceeds 12 inches, the entire excavated space behind the 12-inch blanket should consist of compacted engineered fill or blanket material. The drainage blanket material may consist of either granular crushed rock and drain pipe fully encapsulated in geotextile filter fabric or Class II permeable material that meets CalTrans Specification, Section 68, with drainage pipe but without fabric. A 4-inch perforated drain pipe should be installed in the bottom of the drainage blanket and should be underlain by at least 4 inches of filter type material. A 12-inch cap of clayey soil material should be placed over the drainage blanket. All back drains should be outlet to suitable drainage devices. Retaining wall less than 3 feet in height should be provided with backdrains or weep holes.

34. As an alternate to the 12-inch drainage blanket, a pre-fabricated strip drain (such as Miradrain) may be used between the wall and retained soil. In this case, the wall must be designed to resist an additional lateral hydrostatic pressure of 30 p.c.f.

35. Piping with adequate gradient shall be provided to discharge water that collects behind the walls to an adequately controlled discharge system away from the structure foundation.

36. The retaining walls or soundwalls may be founded on a friction pier foundation or on spread footing foundations. Spread footing and pier design criteria are given below.

RETAINING WALL/SOUNDWALL FOUNDATION - SPREAD FOOTINGS

37. Spread footings should have a minimum depth of eighteen (18) inches below lowest adjacent pad grade (i.e., trenching depth) for soil subgrade. At this depth, the recommended design bearing pressure for continuous footings should not exceed 2,500 p.s.f. due to dead plus sustained live loads and 3,300 p.s.f. due to all loads which include wind and seismic.

38. To accommodate lateral loads, the passive resistance of the foundation soil can be utilized. The passive soil pressures can be assumed to act against the front face of the footing below a depth of one foot below the ground surface. It is recommended that a passive pressure equivalent to that of a fluid weighing 300 p.c.f. be used. The weight of the soil above the footing can be used in the frictional calculations. For design purposes, an allowable friction coefficient of 0.35 can be assumed at the base of the spread footing.

RETAINING WALL/SOUNDWALL FOUNDATION - PIER FOOTINGS

39. The piers should be designed on the basis of skin friction acting between the soil and the pier. For the soils at the site, an allowable skin friction value of 500 p.s.f. can be used for combined dead and live loads, below a depth of 1 foot. This value can be increased by one-third for total loads which include wind or seismic forces. The size, depth and spacing of the piers is to be determined by the structural engineer.

40. To resist lateral loads, the passive resistance of the soil can be used. The soil passive pressures can be assumed to act against the lateral projected area twice the pier diameter. It is recommended that a passive pressure equivalent to that of a fluid weighing 300 p.c.f be used below 1 foot of final pad grade.

PAVEMENT AREAS

41. R-value tests were not performed as part of this investigation, as the soil expected at subgrade level is not known and depends on the planned grading. Assuming the subgrade material will consist of on site silty or imported low expansive clay material, we will assume an R-value of 10 for preliminary design.

42. Based on an R-Value of 10, the following flexible pavement sections are recommended. It is noted that the City of Morgan Hill's minimum pavement section is 4 inches asphaltic concrete (AC) over 8 inches Class II aggregate base (AB).

Traffic Index	AC (inches)	Class II[1] AB (inches)
4.5	4.0	8.0
5.0	4.0	8.0
6.0	4.0	11.0
7.0	4.0	14.5
8.0	6.0	16.0

Notes: [1]Minimum R-Value = 78
R-Value = Resistance Value
All Layers in compacted thickness to Cal-Trans Standard Specifications

43. After underground facilities have been placed in the areas to receive pavement and removal of excess material has been completed, the upper 6 inches of the sub-grade soil shall be scarified, moisture conditioned, and compacted to a minimum relative compaction of 95% in accordance with the grading recommendations specified in this report.

44. All aggregate base material placed subsequently should be compacted to a minimum relative compaction of 95% based on the ASTM Test Procedure of D1557-12 (latest edition). The construction of the pavement areas should conform to the requirements set forth by the latest Standard Specifications of the Department of Transportations of the State of California and/or City of Morgan Hill, Department of Public Works.

45. If planter areas are provided within or immediately adjacent to the pavement areas, or if permeable pavers are used for some areas of pavement, provisions should be made to control irrigation and surface water from entering the pavement subgrade. Water entering the pavement section at subgrade level, which does not have a means for discharge, could cause softening of this zone and lead to pavement failure. We recommend that for areas of permeable pavers, the subgrade be graded to a low point where a subdrain is constructed to discharge any accumulated water.

UTILITY TRENCHES

46. Applicable safety standards require that trenches in excess of 5 feet must be properly shored or that the walls of the trench slope back to provide safety for installation of lines. If trench wall sloping is performed, the inclination should vary with the soil type. The underground contractor should request an opinion from the Soil Engineer as to the type of soil and the resulting inclination.

47. With respect to state-of-the-art construction or local requirements, utility lines are generally bedded with granular materials. These materials can convey surface or subsurface water beneath the structures. It is, therefore, recommended that all utility trenches which possess the potential to transport water be sealed with a compacted impervious cohesive soil material or lean concrete where the trench enters/exits the building perimeter.

48. Utility trenches extending underneath all traffic areas must be backfilled with native or approved import material and compacted to a relative compaction of 90% to within 6 inches of the subgrade. The upper 6 inches should be compacted to 95% relative compaction in accordance with Laboratory Test Procedure ASTM D1557 (latest edition). Backfilling and compaction of these trenches must meet the requirements set forth by the City of Morgan Hill, Department of Public Works. Utility trenches within landscape areas may be compacted to a relative compaction of 85%.

PROJECT REVIEW AND CONSTRUCTION MONITORING

49. All grading and foundation plans for the development must be reviewed by the Soil Engineer prior to contract bidding or submitted to governmental agencies so that plans are reconciled with soil

conditions and sufficient time is allowed for suitable mitigative measures to be incorporated into the final grading specifications.

50. ***Quantum Geotechnical, Inc.*** should be notified at least two working days prior to site clearing, grading, and/or foundation operations on the property. This will give the Soil Engineer ample time to discuss the problems that may be encountered in the field and coordinate the work with the contractor.

51. Field observation and testing during the demolition and/or foundation operations must be provided by representatives of ***Quantum Geotechnical, Inc.*** to enable them to form an opinion regarding the adequacy of the site preparation, the acceptability of fill materials, and the extent to which the earthwork construction and the degree of compaction comply with the specification requirements. Any work related to the grading and/or foundation operations performed without the full knowledge and under the direct observation of the Soil Engineer will render the recommendations of this report invalid. This does not imply full-time observation. The degree of observation and frequency of testing services would depend on the construction methods and schedule, and the item of work.

REFERENCES

1. California Department of Water Resources. Water Resources Library. Accessed on May 31, 2022 via website: http://wdl.water.ca.gov/waterdatalibrary/.

2. California Geological Survey. 2004. “Seismic Hazard Zone Report for the Morgan Hill 7.5-Minute Quadrangle, Santa Clara County, California”. Seismic Hazard Zone Report 096.

3. Graymer, R.W., Moring, B.C., Saucedo, G.J., Wentworth, C.M., Brabb, E.E., and Knudsen, K.L. 2006. “Geologic Map of the San Francisco Bay Region”. U.S. Geological Survey. Scientific Investigations Map 2918.

4. Structural Engineers Association and Office of Statewide Health Planning and Development. 2018. “Seismic Design Maps”. Accessed May 31, 2022 from web site: https://seismicmaps.org/.

5. U.S. Geological Survey. 2019. "Quaternary fault and fold database for the United States". Accessed May 31, 2019 from USGS web site: http//earthquakes.usgs.gov/regional/qfaults/.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. It should be noted that it is the responsibility of the owner or his representative to notify ***Quantum Geotechnical, Inc.,*** in writing, a minimum of two working days before any clearing, grading, or foundation excavations can commence at the site.

2. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings and from a reconnaissance of the site. Should any variations or undesirable conditions be encountered during the development of the site, ***Quantum Geotechnical,*** will provide supplemental recommendations as dictated by the field conditions.

3. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are brought to the attention of the Architect and Engineer for the project and incorporated into the plans and the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.

4. At the present date, the findings of this report are valid for the property investigated. With the passage of time, significant changes in the conditions of a property can occur due to natural processes or works of man on this or adjacent properties. In addition, legislation or the broadening of knowledge may result in changes in applicable standards. Changes outside of our control may render this report invalid, wholly or partially. Therefore, this report should not be considered valid after a period of two (2) years without our review, nor should it be used, or is it applicable, for any properties other than those investigated.

5. Not withstanding all the foregoing, applicable codes must be adhered to at all times.

APPENDIX A

Figure 1, Site Plan

Logs of Terrasearch Test Borings

L:\Projects\Harry\221005.1 MH Morgan Hill 8 City Ventures @ Gateway Center\DWG\221005 LO New.dwg - 12/5/2021 10:32 AM - Plotted 12/5/2021 10:32 AM by Kristian Wallace
Xrefs: 221005 LO Existing-Map; Arch Background 9-21-21; 221005 Points - St Plane Topo 9-09-21; 221005 Points - St Plane; 221005 LO Existing-Imps; 221005 3D New; 221005 LO-Easements of Record; 221102_PROPOSED JT; BL-CTV154

EXISTING COMMERCIAL

MONTEREY ROAD

RAILROAD TRACKS

10' PSE

1" = 40'

Percolation Test 220

Percolation Test 221

Percolation Test 223

Percolation Test 224

SHEET	1
OF	1
JOB NO.	221005.1
DATE:	12/5/21
SCALE:	1" = 40'
DRAWN BY:	KW
CHECKED BY:	HS

Site Layout

The Gates

MH engineering Co.
16075 Vineyard Boulevard Morgan Hill, CA 95037

LOGGED BY RJP DATE DRILLED 26 April 2004 BORING DIAMETER 6" BORING NO. B-1

Depth, ft.	Sample No. and Type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft-lbs	Qu - tsf Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
			Medium brown SAND & GRAVEL; damp, medium dense, Af	SW					
			Medium brown Silty CLAY; damp, medium stiff to hard	CL	12		110.8	14.0	c = 400psf ø = 30° LL = 28 PI = 12
5					39		116.5	15.6	
			Orangish brown Clayey Silty SAND; damp, dense	SM					
10			Medium brown SAND & GRAVEL; damp, dense, gravel sub-rounded to 2"ø	GW	28		123.3	7.7	
15									
			Slightly orange brown Silty CLAY; damp, hard, some gravel	CL					
20					>50		118.3	13.4	
25			@ 25' some rounded gravel to ¾"ø						
			@ 28½' heavy gravel	GW					
30			Terminated @ 30' bgs No Groundwater encountered						

TERRASEARCH, inc. | **PROJECT NO. 10218.G** | **FIGURE NO. 3**

LOGGED BY RJP DATE DRILLED 26 April 2004 BORING DIAMETER 6" BORING NO. B-2

Depth, ft.	Sample No. and Type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft-lbs	Qu - tsf Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
			Medium brown SILT, SAND & GRAVEL; damp, medium dense, Af	SW					
5			Medium brown f. Sandy SILT; damp, stiff	ML	10		106.7	11.8	
10			Medium brown Silty SAND & GRAVEL; damp, medium dense	SW	17		118.0	12.7	
15			Slightly orange brown Clayey SILT; damp, hard, some gravel	ML					
20			Terminated @ 20' bgs No Groundwater encountered						
25									
30									

TERRASEARCH, inc. **PROJECT NO. 10218.G** **FIGURE NO. 4**

LOGGED BY RJP DATE DRILLED 26 April 2004 BORING DIAMETER 6" BORING NO. B-3

Depth, ft.	Sample No. and Type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	Blows/foot 350 ft-lbs	Qu - tsf Penetrometer	Dry Density p.c.f.	Moisture % dry wt.	MISC. LAB RESULTS
			Medium brown Silty CLAY; damp, hard	CL	32		109.7	18.6	
5			Orangish brown Clayey SAND; damp, dense, some Gravel	SC	37		123.0	8.9	
			Orange brown Silty SAND & GRAVEL; damp, dense	SW					
10					22		117.4	12.1	
15									
			Slightly orange brown Silty CLAY; damp, hard, some gravel	CL					
20					29		105.6	14.7	
			increasing Clay ↓						
25									
			Olive brown Silty CLAY; damp, stiff	CL					
30			Terminated @ 30' bgs No Groundwater encountered						

TERRASEARCH, inc. | **PROJECT NO. 10218.G** | **FIGURE NO. 5**

Appendix B

The Grading Specification

Guide Specifications for Rock Under Floor Slabs

THE GRADING SPECIFICATIONS
on
Proposed Residential & Commercial Development
18605 Monterey Road
Morgan Hill, California

1. General Description

1.1 These specifications have been prepared for the grading and site development of the subject residential development. ***Quantum Geotechnical Inc.***, hereinafter described as the Soil Engineer, should be consulted prior to any site work connected with site development to ensure compliance with these specifications.

1.2 The Soil Engineer should be notified at least two working days prior to any site clearing or grading operations on the property in order to observe the stripping of organically contaminated material and to coordinate the work with the grading contractor in the field.

1.3 This item shall consist of all clearing or grubbing, preparation of land to be filled, filling of the land, spreading, compaction and control of fill, and all subsidiary work necessary to complete the grading of the filled areas to conform with the lines, grades, and slopes as shown on the accepted plans. The Soil Engineer is not responsible for determining line, grade elevations, or slope gradients. The property owner, or his representative, shall designate the person or organizations who will be responsible for these items of work.

1.4 The contents of these specifications shall be integrated with the soil report of which they are a part, therefore, they shall not be used as a self-contained document.

2. Tests

The standard test used to define maximum densities of all compaction work shall be the ASTM D1557-12 Laboratory Test Procedure. All densities shall be expressed as a relative compaction in terms of the maximum dry density obtained in the laboratory by the foregoing standard procedure.

3. Clearing, Grubbing, and Preparing Areas To Be Filled

3.1 If encountered, all vegetable matter, trees, root systems, shrubs, debris, and organic topsoil shall be removed from all structural areas and areas to receive fill.

3.2 If encountered, any soil deemed soft or unsuitable by the Soil Engineer shall be removed. Any existing debris or excessively wet soils shall be excavated and removed as required by the Soil Engineer during grading.

3.3 All underground structures shall be removed from the site such as old foundations, abandoned pipe lines, septic tanks, and leach fields.

3.4 The final stripped excavation shall be approved by the Soil Engineer during construction and before further grading is started.

3.5 After the site has been cleared, stripped, excavated to the surface designated to receive fill, and scarified, it shall be disked or bladed until it is uniform and free from large clods. The native subgrade soils shall be moisture conditioned and compacted to the requirements as specified in the grading section of this report. Fill can then be placed to provide the desired finished grades. The contractor shall obtain the Soil Engineer's approval of subgrade compaction before any fill is placed.

4. Materials

4.1 All fill material shall be approved by the Soil Engineer. The material shall be a soil or soil-rock mixture which is free from organic matter or other deleterious substances. The fill material shall not contain rocks or lumps over 6 inches in greatest dimension and not more than 15% larger than 2-1/2 inches. Materials from the site below the stripping depth are suitable for use in fills provided the above requirements are met.

4.2 Materials existing on the site are suitable for use as compacted engineered fill after the removal of all debris and organic material. All fill soils shall be approved by the Soil Engineer in the field.

4.3 Should import material be required, it should be approved by the soil Engineer before it is brought to the site.

5. Placing, Spreading, and Compacting Fill Material

5.1 The fill materials shall be placed in uniform lifts of not more than 8 inches in uncompacted thickness. Each layer shall be spread evenly and shall be thoroughly blade mixed during the spreading to obtain uniformity of material in each layer. Before compaction begins, the fill shall be brought to a water content that will permit proper compaction by either (a) aerating the material if it is too wet, or (b) spraying the material with water if it is too dry.

5.2 After each layer has been placed, mixed, and spread evenly, either import material or native material shall be compacted to a relative compaction designated for engineered fill.

5.3 Compaction shall be by footed rollers or other types of acceptable compacting rollers. Rollers shall be of such design that they will be able to compact the fill to the specified density. Rolling shall be accomplished while the fill material is within the specified moisture content range. Rolling of each layer shall be continuous over its entire area and the roller shall make sufficient trips to ensure that the required density has been obtained. No ponding or jetting shall be permitted.

5.4 Field density tests shall be made in each compacted layer by the Soil Engineer in accordance with Laboratory Test Procedure ASTM D1556-15 or D6938-10. When footed rollers are used for compaction, the density tests shall be taken in the compacted material below the surface disturbed by the roller. When these tests indicate that the compaction requirements on any layer of fill, or portion thereof, has not been met, the particular layer, or portion thereof, shall be reworked until the compaction requirements have been met.

5.5 No soil shall be placed or compacted during periods of rain nor on ground which contains free water. Soil which has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limits hereinbefore described or approved by the Soil Engineer. Approval by the Soil Engineer shall be obtained prior to continuing the grading operations.

6. Pavement

6.1 The proposed subgrade under pavement sections, native soil, and/or fill shall be compacted to a minimum relative compaction of 95% at 2% above optimum moisture content for a depth of 12 inches.

6.2 All aggregate base material placed subsequently should also be compacted to a minimum relative compaction of 95% based on the ASTM Test Procedure D1557-12. The construction of the pavement in the parking and traffic areas should conform to the requirements set forth by the latest Standard Specifications of the Department of Transportation of the State of California and/or City of Morgan Hill, Department of Public Works.

6.3 It is recommended that soils at the proposed subgrade level be tested for a pavement design after the preliminary grading is completed and the soils at the site design subgrade levels are known.

7. Utility Trench Backfill

7.1 The utility trenches extending under concrete slabs-on-grade shall be backfilled with native on-site soils or approved import materials and compacted to the requirements pertaining to the adjacent soil. No ponding or jetting will be permitted.

7.2 Utility trenches extending under all pavement areas shall be backfilled with native or approved import material and properly compacted to meet the requirements set forth by the City of Morgan Hill, Department of Public Works.*

7.3 Where any opening is made under or through the perimeter foundations for such items as utility lines and trenches, the openings must be resealed so that they are watertight to prevent the possible entrance of outside irrigation or rain water into the underneath portion of the structures.

8. Subsurface Line Removal

8.1 The methods of removal will be designated by the Soil Engineer in the field depending on the depth and location of the line. One of the following methods will be used.

8.2 Remove the pipe and fill and compact the soil in the trench according to the applicable portions of sections pertaining to compaction and utility backfill.

8.3 The pipe shall be crushed in the trench. The trench shall then be filled and compacted according to the applicable portions of Section 5.

8.4 Cap the ends of the line with concrete to prevent entrance of water. The length of the cap shall not be less than 5 feet. The concrete mix shall have a minimum shrinkage.

9. Unusual Conditions

9.1 In the event that any unusual conditions not covered by the special provisions are encountered during the grading operations, the Soil Engineer shall be immediately notified for additional recommendations.

10. General Requirements

Dust Control

10.1 The contractor shall conduct all grading operations in such a manner as to preclude windblown dirt and dust and related damage to neighboring properties. The means of dust control shall be left to the discretion of the contractor and he shall assume liability for claims related to windblown material.

GUIDE SPECIFICATIONS FOR ROCK UNDER FLOOR SLABS

Definition

Graded gravel or crushed rock for use under slabs-on-grade shall consist of a minimum thickness of mineral aggregate placed in accordance with these specifications and in conformance with the dimensions shown on the plans. The minimum thickness is specified in the accompanying report.

Material

The mineral aggregate shall consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination thereof. The aggregate shall be free from deleterious substances. It shall be of such quality that the absorption of water in a saturated dry condition does not exceed 3% of the oven dry weight of the sample.

Gradation

The mineral aggregate shall be of such size that the percentage composition by dry weight, as determined by laboratory sieves (U.S. Sieves) will conform to the following gradation:

Sieve Size	Percentage Passing
¾''	90-100
No. 4	25-60
No. 8	18-45
No. 200	0-3

Placing

Subgrade, upon which gravel or crushed rock is to be placed, shall be prepared as outlined in the accompanying soil report.

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Project: The Gates
Project No.: 221005.1
Date: 6/28/2022

Attachment D:
Retention Volume Calculations

Project: The Gates
Project No.: 221005.1
Date: 6/28/2022

Retention Volume Calculations

Post Construction Storm Water Management Calculations
Per Resolution No. R3-2013-0032

1.) Determination of the Retention Tributary Area

a.)

Impervious Areas									
	Pre-Development			Post-Development					
				Replaced			New		
DMA	Roof	PCC	AC	Roof	PCC	AC	Roof	PCC	AC
1	0	0	0	0	0	0	39,429	25,836	46,760

Pervious vs Impervious Areas									
		Pre-Development		Post-Development					
					Impervious			i	C
DMA	Total Area	Pervious	Impervious	Pervious	Replaced	New	Total		
1	174,172	174,172	0	62,148	0	112,024	112,024	0.64	0.44
Total	174,172	174,172	0	62,148	0	112,024	112,024	0.64	0.44

A_{total} = drainage area (sf)
A_{roofs} = roof areas (sf)
$A_{pcc\text{-}walks/parking}$ = area of pcc walks & parking lot
$A_{pcc\ -streets}$ = area of pcc walks and curbs (sf)
$A_{AC\text{-}streets}$ = Street pavement areas (sf)
$A_{pervious}$ = Planted & Open Areas (sf)
$A_{impervious}$ = total impervious roof areas, PCC areas & AC areas (sf)
i = fraction of the tributary area that is impervious = $A_{impervious}$ / A_{area}
$C_{area\#}$ = Area runoff coefficient=C = $0.858i^3 - 0.78i^2 + 0.774i + 0.04$

b.)adjustments for redevelopment project

DMA	DMA Area	A_{PA}	A_{other}	$A_{replaced}$	$A_{retention}$
1	174,172	0	0	0	174,172
Total	174,172	0	0	0	174,172

A_{PA} = Undisturbed or Self-Retaining Planted or Open Areas
A_{other} = Impervious Areas that discharge to independent infiltrating Areas
$A_{replaced}$ = Replaced Impervious Areas
$A_{retention}$ = Retention Tributary Area = DMA Area - A_{PA} - A_{other} - (0.5 x $A_{replaced}$)

2.) Determination of Retention Volume

a.) retention requirement

1 = WMZ = watershed management zone per WMZ map

b.) WMZ 1 Runoff Retention Requirement = Retain 95th percentile 24-hour rainfall event

1.85 = D_{95} = 95th Percentile Rainfall Depth

c.) compute the runoff coefficient

DMA	DMA Area	Impervious Area	i	C
1	174,172	112,024	0.64	0.44
Total	174,172	112,024	0.64	0.44

$C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$

i = fraction of the tributary area that is impervious = $A_{impervious} / A_{project}$

d.) Project Type

Mixed Use

e.) Compute Retention Volume required

DMA	$A_{retention}$	i	C	D_{95}	$V_{retention}$
1	174,172	0.64	0.44	1.85	11,907
Total	**174,172**	0.64	0.44	1.85	11,907

$C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$

i = fraction of the tributary area that is impervious = $A_{impervious} / A_{project}$

$V_{retention}$ = Required Retention Volume = $A_{retention}$ x C x (D_{95}/12)

3.) Retention Volume Provided

Surface Volume Calculations			
Elevation	Surface Area	Incremental Volume	Cumulative Volume
347.85	4,888.43 SF	0.00 CF	0.00 CF
348	5,096.78 SF	748.89 CF	748.89 CF
348.85	6,330.85 SF	4,856.74 CF	5,605.63 CF

Bioretention Volume				
Material	Area	Depth	% Voids	Volume
Biomedia	4,888.43 SF	24 in.	25%	2,444.22 CF
Drainrock	4,888.43 SF	24 in.	40%	3,910.75 CF

3d.) Total Volume Provided

Total Volume: $V_{total} = V_{surface} + V_{bioretention}$ = 11,961 CF

11,961CF ≥ 11,907; therefore ok

4.) Summary of HydroCAD Output

1.625 in/hr = Exfiltration Rate (See Appendix A for details)

Return	Pre Dev. (cfs)	Post Dev. (cfs)	Out from Storage (cfs)	Infiltration (cfs)	Water Elev (ft)	Storage (cf)
95th	0.58	1.24	0.00	0.57	348.16	8,146
2 year	1.16	1.94	0.33	0.62	349.15	14,612
5 year	1.79	2.64	1.43	0.65	349.56	17,665
10 year	2.34	3.23	1.86	0.66	349.77	19,259
25 year	3.13	4.06	2.33	0.68	350.06	21,612
100 year	4.44	5.40	3.02	0.71	350.59	26,333

see detailed HydroCAD Output on following sheets

5.) Drawdown Time Calculations

Retention Volume = 11,961 CF
Infiltration Area = 4,888.43 ft.
Design Infiltration Rate = 1.625 in/hr

Infiltration Flow Rate = Infiltration Area x Design Infiltration Rate x (1 ft./12 in) = 661.98 CF/Hour

Drawdown Time = (Storage Volume/Infiltration Flow Rate) = 18 hours

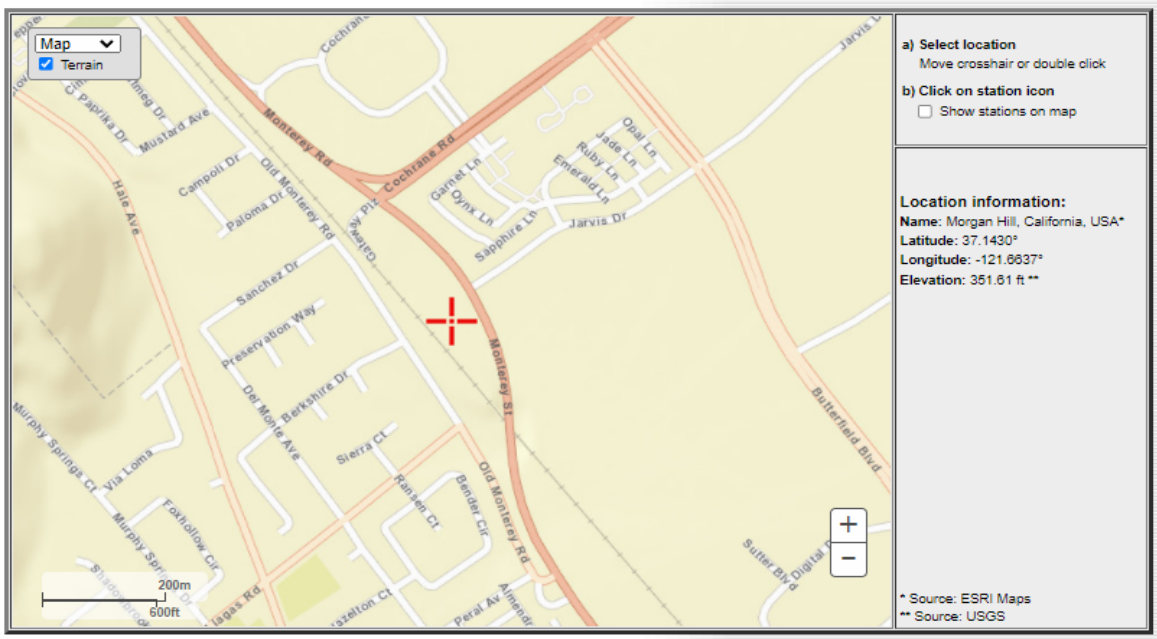
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Project: The Gates
Project No.: 221005.1
Date: 6/28/2022

Attachment E:
NOAA Rainfall Data

Project: The Gates
Project No.: 221005.1
Date: 6/28/2022

Rainfall Data



POINT PRECIPITATION FREQUENCY (PF) ESTIMATES
WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
NOAA Atlas 14, Volume 6, Version 2

PF tabular | PF graphical | Supplementary information | Print page

PDS-based 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	0.121 (0.103-0.144)	0.153 (0.130-0.182)	0.197 (0.167-0.235)	0.235 (0.197-0.282)	0.288 (0.232-0.361)	0.331 (0.261-0.426)	0.377 (0.288-0.499)	0.427 (0.316-0.583)	0.497 (0.350-0.713)	0.555 (0.376-0.828)
10-min	0.174 (0.148-0.206)	0.220 (0.187-0.261)	0.283 (0.239-0.337)	0.336 (0.282-0.405)	0.413 (0.333-0.517)	0.475 (0.374-0.610)	0.541 (0.413-0.715)	0.612 (0.452-0.836)	0.713 (0.502-1.02)	0.796 (0.539-1.19)
15-min	0.210 (0.179-0.250)	0.266 (0.226-0.316)	0.342 (0.290-0.407)	0.407 (0.341-0.490)	0.499 (0.403-0.626)	0.574 (0.452-0.738)	0.654 (0.500-0.865)	0.740 (0.547-1.01)	0.862 (0.608-1.24)	0.962 (0.651-1.44)
30-min	0.293 (0.250-0.348)	0.371 (0.315-0.440)	0.477 (0.404-0.568)	0.567 (0.478-0.683)	0.697 (0.562-0.873)	0.801 (0.630-1.03)	0.913 (0.698-1.21)	1.03 (0.763-1.41)	1.20 (0.848-1.73)	1.34 (0.909-2.00)
60-min	0.435 (0.371-0.517)	0.550 (0.467-0.653)	0.708 (0.599-0.844)	0.842 (0.706-1.01)	1.03 (0.834-1.30)	1.19 (0.936-1.53)	1.35 (1.03-1.79)	1.53 (1.13-2.09)	1.79 (1.26-2.56)	1.99 (1.35-2.97)
2-hr	0.665 (0.566-0.790)	0.840 (0.714-0.998)	1.08 (0.915-1.29)	1.28 (1.08-1.55)	1.58 (1.27-1.97)	1.81 (1.42-2.33)	2.06 (1.57-2.72)	2.33 (1.72-3.18)	2.71 (1.91-3.88)	3.02 (2.04-4.50)
3-hr	0.835 (0.711-0.991)	1.06 (0.897-1.25)	1.36 (1.15-1.62)	1.61 (1.35-1.94)	1.98 (1.60-2.48)	2.27 (1.79-2.92)	2.59 (1.98-3.42)	2.92 (2.18-3.99)	3.40 (2.39-4.87)	3.78 (2.56-5.64)
6-hr	1.18 (1.00-1.40)	1.50 (1.27-1.78)	1.93 (1.63-2.30)	2.30 (1.93-2.76)	2.82 (2.27-3.53)	3.24 (2.55-4.16)	3.68 (2.81-4.87)	4.16 (3.07-5.68)	4.83 (3.40-6.92)	5.37 (3.64-8.02)
12-hr	1.58 (1.35-1.88)	2.03 (1.72-2.41)	2.63 (2.23-3.14)	3.15 (2.64-3.79)	3.88 (3.13-4.86)	4.46 (3.51-5.73)	5.08 (3.88-6.72)	5.74 (4.25-7.85)	6.68 (4.71-9.58)	7.44 (5.04-11.1)
24-hr	2.05 (1.82-2.37)	2.66 (2.35-3.07)	3.48 (3.07-4.04)	4.18 (3.65-4.88)	5.16 (4.38-6.20)	5.94 (4.95-7.28)	6.77 (5.51-8.48)	7.64 (6.07-9.82)	8.88 (6.79-11.9)	9.88 (7.32-13.6)
2-day	2.61 (2.31-3.02)	3.41 (3.01-3.94)	4.45 (3.95-5.20)	5.36 (4.70-6.28)	6.62 (5.62-7.96)	7.60 (6.33-9.31)	8.61 (7.02-10.8)	9.80 (7.69-12.4)	11.2 (8.53-14.9)	12.3 (9.14-17.0)

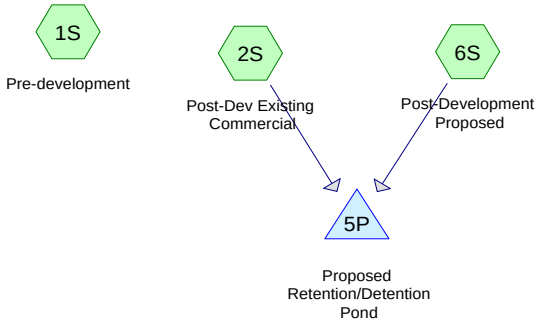
Project: The Gates
Project No.: 221005.1
Date: 6/28/2022

Attachment F:
HydroCAD Modeling Output

Project: The Gates
Project No.: 221005.1
Date: 6/28/2022

SCS Routing

Event Summary



Events for Subcatchment 1S: Pre-development

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
95th	1.85	0.58	0.226	0.44
1 year	2.05	0.72	0.286	0.55
2 year	2.66	1.16	0.490	0.95
5 year	3.48	1.79	0.802	1.55
10 year	4.18	2.34	1.092	2.11
25 year	5.16	3.13	1.521	2.94
50 year	5.94	3.77	1.876	3.63
100 year	**6.77**	**4.44**	**2.263**	**4.37**

Events for Subcatchment 2S: Post-Dev Existing Commer

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
95th	1.85	0.53	0.275	1.26
1 year	2.05	0.60	0.316	1.44
2 year	2.66	0.80	0.442	2.02
5 year	3.48	1.08	0.616	2.82
10 year	4.18	1.31	0.766	3.50
25 year	5.16	1.63	0.977	4.47
50 year	5.94	1.89	1.145	5.24
100 year	**6.77**	**2.16**	**1.325**	**6.06**

Events for Subcatchment 6S: Post-Development Propos

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
95th	1.85	0.71	0.344	1.03
1 year	2.05	0.82	0.402	1.21
2 year	2.66	1.14	0.585	1.76
5 year	3.48	1.56	0.840	2.52
10 year	4.18	1.92	1.063	3.19
25 year	5.16	2.42	1.379	4.14
50 year	5.94	2.82	1.632	4.90
100 year	**6.77**	**3.24**	**1.903**	**5.71**

Events for Pond 5P: Proposed Retention/Detention Pond

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Tertiary (cfs)	Elevation (feet)	Storage (cubic-feet)
95th	1.24	0.57	0.57	0.00	**0.00**	348.16	8,146
1 year	1.41	0.58	0.58	0.00	0.00	348.43	9,772
2 year	1.94	0.96	0.62	0.33	0.00	349.15	14,612
5 year	2.64	2.07	0.65	1.43	0.00	349.56	17,665
10 year	3.23	2.52	0.66	1.86	0.00	349.77	19,258
25 year	4.06	3.01	0.68	2.33	0.00	350.06	21,612
50 year	4.71	3.37	0.69	2.68	0.00	350.31	23,766
100 year	**5.40**	**3.73**	**0.71**	**3.02**	0.00	**350.59**	**26,333**

Event = rainfall event

Inflow = total inflow into storm water control

Outflow = total outflow from storm water control (discarded+primary+tertiary)

Discarded = flow via infiltration

Primary = Flow released from the retention/detention pond through the 10" orifice at 348.85' and (if needed) the stand pipe top at 352.50'

Tertiary = Flow over the top of bank in emergency situations (occurs at elevation 353.50')

Pre-Development

Note: Pre-Development Node is taken to be bare dirt for this calcuations due to the relocation of the existing detention pond proposed by the development.

Summary for Subcatchment 1S: Pre-development

Runoff = 4.44 cfs @ 18.14 hrs, Volume= 2.263 af, Depth= 4.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
SCVWD 1956 Storm 100 year Rainfall=6.77"

Area (sf)	CN	Description
270,379	79	50-75% Grass cover, Fair, HSG C
270,379		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Post-Development - Existing Commercial Development

Note: Existing Commercial Development Node is considered for **PEAK MITIGATION ONLY**. This area relied on the detention pond located on the proposed development that The Gates will be relocating. As mentioned above, Pre-Development Node is considered to be bare dirt (before the existing commercial development) to ensure that peak flow mitigation is maintained with new pond design.

Summary for Subcatchment 2S: Post-Dev Existing Commercial

Runoff = 2.16 cfs @ 18.12 hrs, Volume= 1.325 af, Depth= 6.06"
Routed to Pond 5P : Proposed Retention/Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
SCVWD 1956 Storm 100 year Rainfall=6.77"

Area (sf)	CN	Description
114,303	94	Urban commercial, 85% imp, HSG C
17,145		15.00% Pervious Area
97,158		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Post-Development - Proposed Development

Note: This Proposed Development area is what is being proposed in The Gates development. This area is used for retention calculations and peak-flow mitigation.

Summary for Subcatchment 6S: Post-Development Proposed

Runoff = 3.24 cfs @ 18.14 hrs, Volume= 1.903 af, Depth= 5.71"
Routed to Pond 5P : Proposed Retention/Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
SCVWD 1956 Storm 100 year Rainfall=6.77"

	Area (sf)	CN	Description
*	39,429	98	roof
*	25,836	98	concrete
*	46,760	98	asphalt
	62,148	79	50-75% Grass cover, Fair, HSG C
	174,173	91	Weighted Average
	62,148		35.68% Pervious Area
	112,025		64.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Proposed Retention/Detention Pond Summary - 95th Percentile Event

Summary for Pond 5P: Proposed Retention/Detention Pond

Inflow Area = 6.622 ac, 72.51% Impervious, Inflow Depth = 1.12" for 95th event
Inflow = 1.24 cfs @ 18.14 hrs, Volume= 0.619 af
Outflow = 0.57 cfs @ 19.07 hrs, Volume= 0.619 af, Atten= 54%, Lag= 55.9 min
Discarded = 0.57 cfs @ 19.07 hrs, Volume= 0.619 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 348.16' @ 19.07 hrs Surf.Area= 15,105 sf Storage= 8,146 cf

Plug-Flow detention time= 189.3 min calculated for 0.619 af (100% of inflow)
Center-of-Mass det. time= 189.4 min (1,183.1 - 993.8)

Volume	Invert	Avail.Storage	Storage Description
#1	347.85'	60,359 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	349.35'	178 cf	**18.0" Round RCP_Round 18"** -Impervious L= 101.0' S= 0.0022 '/'
#3	347.08'	30 cf	**18.0" Round RCP_Round 18"** -Impervious L= 17.0' S= 0.1440 '/'
#4	347.08'	792 cf	**18.0" Round RCP_Round 18"** -Impervious L= 448.0' S= 0.0032 '/'
#5	345.85'	2,444 cf	**BSM (Prismatic)** Listed below (Recalc) 9,776 cf Overall x 25.0% Voids
#6	343.85'	3,910 cf	**Drain Rock (Prismatic)** Listed below (Recalc) 9,776 cf Overall x 40.0% Voids
		67,713 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
347.85	4,888	0	0
348.00	5,097	749	749
348.85	6,331	4,857	5,606
349.00	6,556	967	6,572
350.00	8,116	7,336	13,908
351.00	9,776	8,946	22,854
352.00	11,537	10,657	33,511
353.00	13,399	12,468	45,979
354.00	15,361	14,380	60,359

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
345.85	4,888	0	0
347.85	4,888	9,776	9,776

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
343.85	4,888	0	0
345.85	4,888	9,776	9,776

Device	Routing	Invert	Outlet Devices
#1	Tertiary	353.50'	**10.0' long + 23.0 '/' SideZ x 7.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.78
#2	Discarded	343.85'	**1.625 in/hr Exfiltration over Surface area**
#3	Primary	352.50'	**21.0" Horiz. Top of Stand Pipe** C= 0.600 Limited to weir flow at low heads
#4	Primary	348.85'	**10.0" Vert. 10" Orifice** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.57 cfs @ 19.07 hrs HW=348.16' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.57 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=343.85' (Free Discharge)
├**3=Top of Stand Pipe** (Controls 0.00 cfs)
└**4=10" Orifice** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=343.85' (Free Discharge)
└**1=Emergency Overflow Weir** (Controls 0.00 cfs)

Proposed Retention/Detention Pond Summary - 100-Year Event

Summary for Pond 5P: Proposed Retention/Detention Pond

Inflow Area = 6.622 ac, 72.51% Impervious, Inflow Depth = 5.85" for 100 year event
Inflow = 5.40 cfs @ 18.14 hrs, Volume= 3.229 af
Outflow = 3.73 cfs @ 18.69 hrs, Volume= 3.229 af, Atten= 31%, Lag= 32.8 min
Discarded = 0.71 cfs @ 18.69 hrs, Volume= 1.384 af
Primary = 3.02 cfs @ 18.69 hrs, Volume= 1.845 af
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 350.59' @ 18.69 hrs Surf.Area= 18,876 sf Storage= 26,333 cf

Plug-Flow detention time= 163.6 min calculated for 3.229 af (100% of inflow)
Center-of-Mass det. time= 163.6 min (1,066.0 - 902.4)

Volume	Invert	Avail.Storage	Storage Description
#1	347.85'	60,359 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	349.35'	178 cf	**18.0" Round RCP_Round 18"** -Impervious L= 101.0' S= 0.0022 '/'
#3	347.08'	30 cf	**18.0" Round RCP_Round 18"** -Impervious L= 17.0' S= 0.1440 '/'
#4	347.08'	792 cf	**18.0" Round RCP_Round 18"** -Impervious L= 448.0' S= 0.0032 '/'
#5	345.85'	2,444 cf	**BSM (Prismatic)** Listed below (Recalc) 9,776 cf Overall x 25.0% Voids
#6	343.85'	3,910 cf	**Drain Rock (Prismatic)** Listed below (Recalc) 9,776 cf Overall x 40.0% Voids
		67,713 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
347.85	4,888	0	0
348.00	5,097	749	749
348.85	6,331	4,857	5,606
349.00	6,556	967	6,572
350.00	8,116	7,336	13,908
351.00	9,776	8,946	22,854
352.00	11,537	10,657	33,511
353.00	13,399	12,468	45,979
354.00	15,361	14,380	60,359

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
345.85	4,888	0	0
347.85	4,888	9,776	9,776

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
343.85	4,888	0	0
345.85	4,888	9,776	9,776

Device	Routing	Invert	Outlet Devices
#1	Tertiary	353.50'	**10.0' long + 23.0 '/' SideZ x 7.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65

2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.78

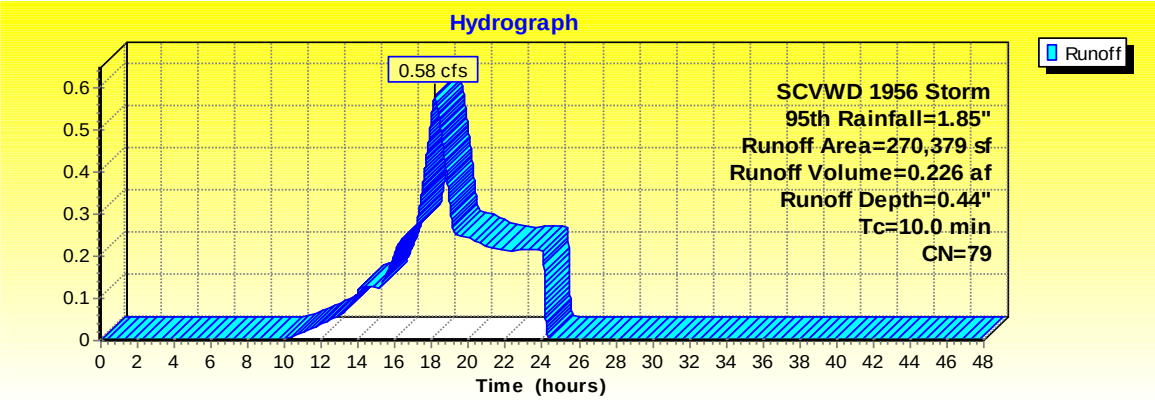
#2	Discarded	343.85'	**1.625 in/hr Exfiltration over Surface area**
#3	Primary	352.50'	**21.0" Horiz. Top of Stand Pipe** C= 0.600 Limited to weir flow at low heads
#4	Primary	348.85'	**10.0" Vert. 10" Orifice** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.71 cfs @ 18.69 hrs HW=350.59' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.71 cfs)

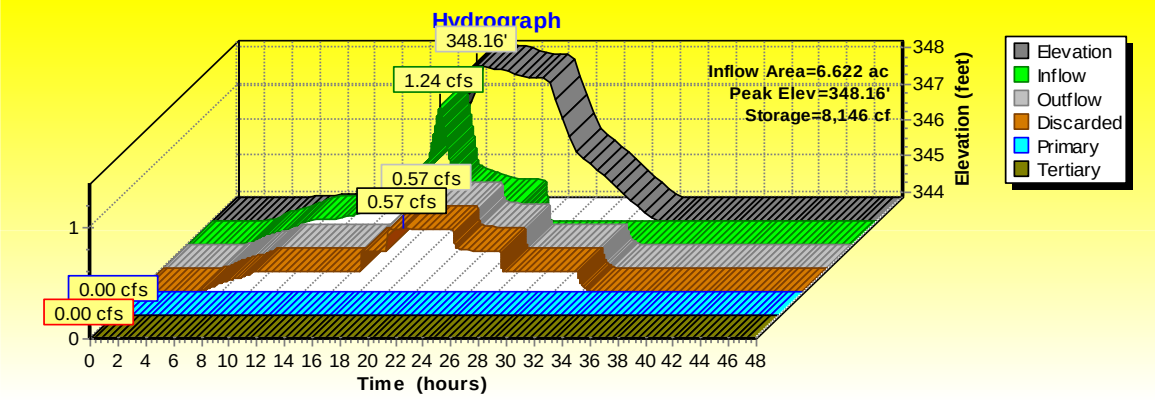
Primary OutFlow Max=3.02 cfs @ 18.69 hrs HW=350.59' (Free Discharge)
├**3=Top of Stand Pipe** (Controls 0.00 cfs)
└**4=10" Orifice** (Orifice Controls 3.02 cfs @ 5.55 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=343.85' (Free Discharge)
└**1=Emergency Overflow Weir** (Controls 0.00 cfs)

95th% Event - Pre-Development

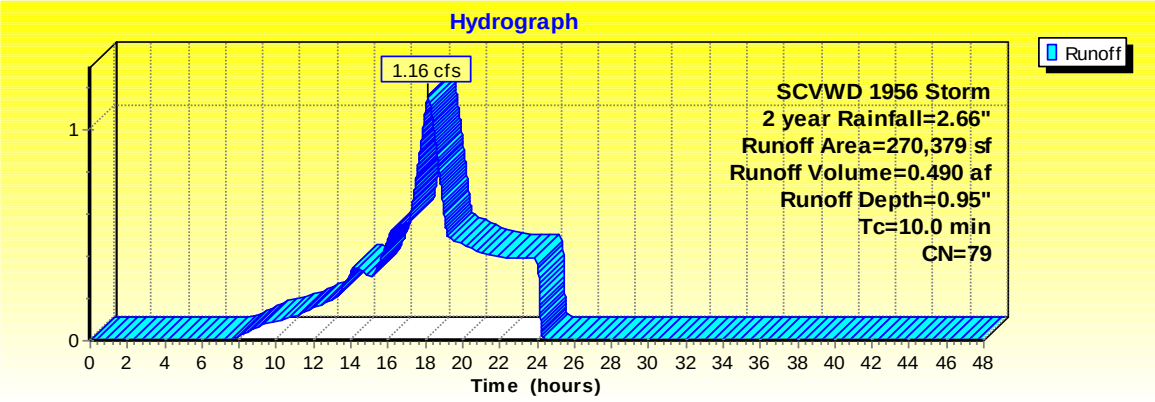


95th% Event - Post Development

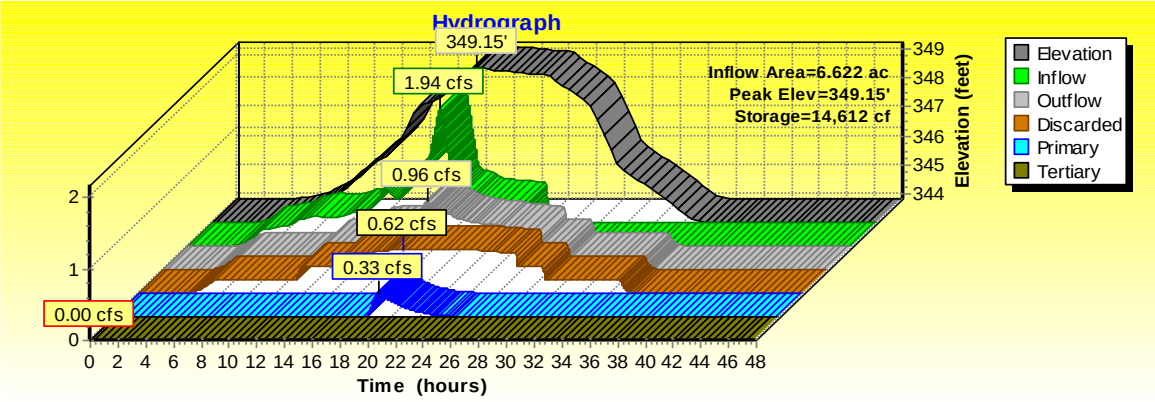


Note: 0cfs discharge for 95th% event
Elevation = water surface elevation
Inflow = all inflow into the storm water control
Outflow = sum of all outflow (discarded+primary+tertiary)
Discarded = flow out via infiltration
Primary = flow out of the 10" orifice and/or the top of the stand pipe (Orifice elevation=348.85, Stand Pipe Top Elevation=352.50)
Tertiary = flow out via over the emergency overflow weir (occurs when water surface elevation exceeds 353.50)
Note: full dewatering of subsurface retention occurs at hour 32.65, 8.65 hours after storm ends.

2-year Event - Pre-Development

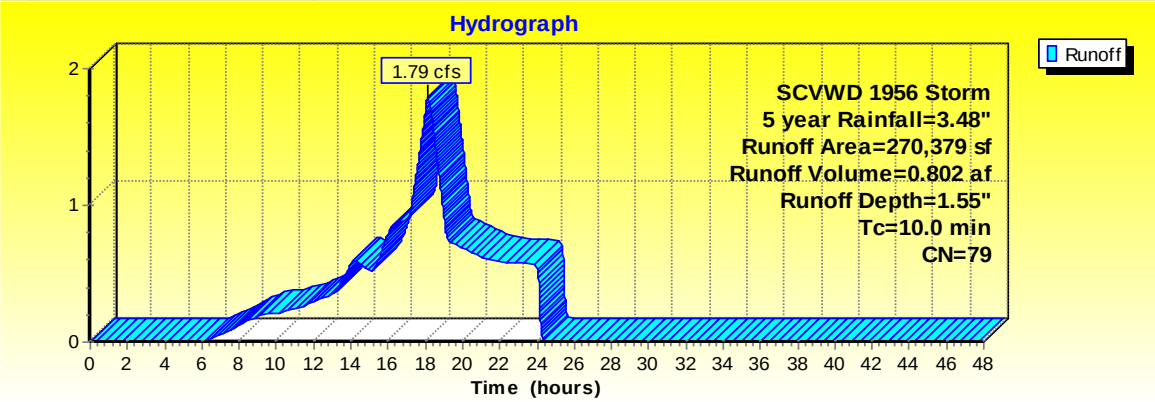


2-year Event - Post Development

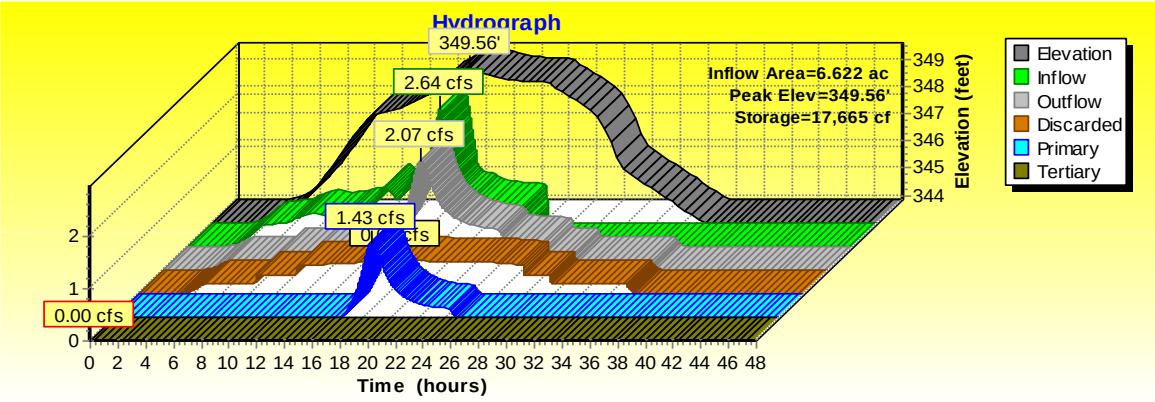


Elevation = water surface elevation
Inflow = all inflow into the storm water control
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Discarded = flow out via infiltration
Primary = flow out of the 10" orifice and/or the top of the stand pipe (Orifice elevation=348.85, Stand Pipe Top Elevation=352.50)
Tertiary = flow out via over the emergency overflow weir (occurs when water surface elevation exceeds 353.50)
Note: full dewatering of subsurface retention occurs at hour 32.65, 8.65 hours after storm ends.

5-year Event - Pre-Development

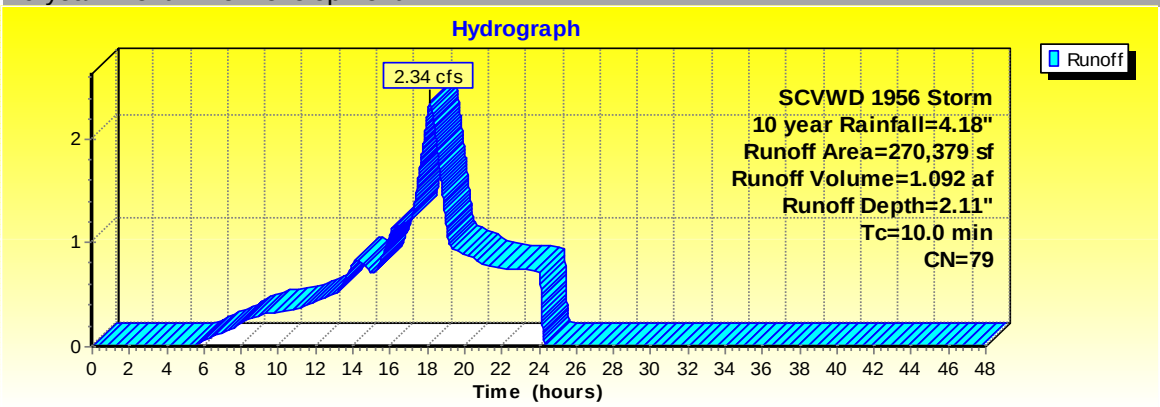


5-year Event - Post Development

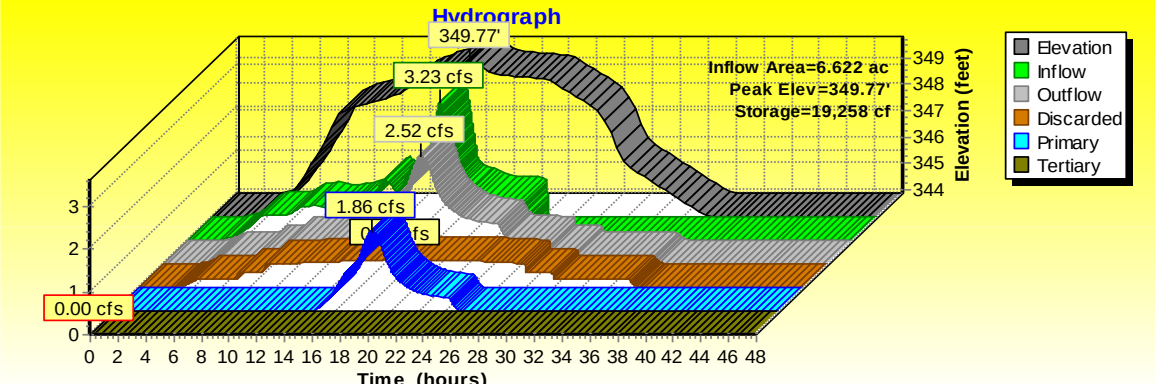


Elevation = water surface elevation
Inflow = all inflow into the storm water control
Outflow = sum of all outflow (discarded+primary+tertiary)
Discarded = flow out via infiltration
Primary = flow out of the 10" orifice and/or the top of the stand pipe (Orifice elevation=348.85, Stand Pipe Top Elevation=352.50)
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Note: full dewatering of subsurface retention occurs at hour 32.65, 8.65 hours after storm ends.

10-year Event - Pre-Development

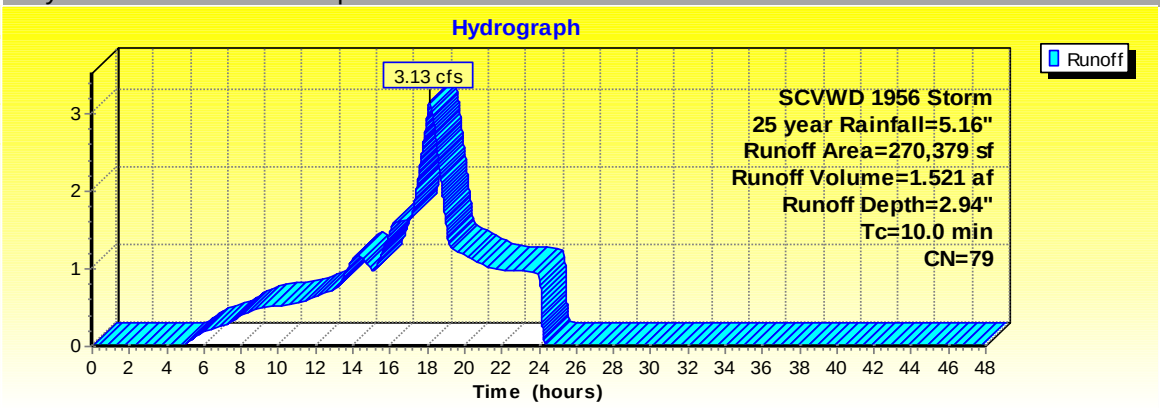


10-year Event - Post Development

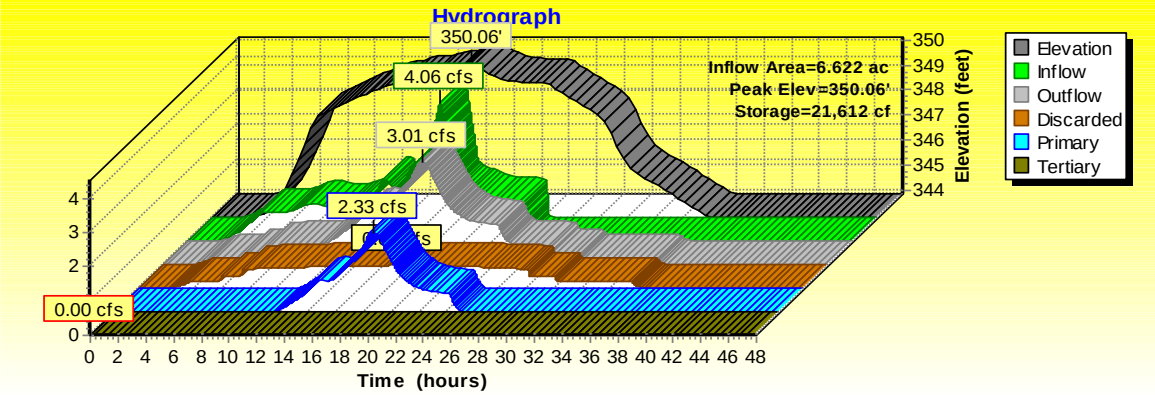


Elevation = water surface elevation
Inflow = all inflow into the storm water control
Outflow = sum of all outflow (discarded+primary+tertiary)
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Primary = flow out of the 10" orifice and/or the top of the stand pipe (Orifice elevation=348.85, Stand Pipe Top Elevation=352.50)
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Note: full dewatering of subsurface retention occurs at hour 32.65, 8.65 hours after storm ends.

25-year Event - Post Development

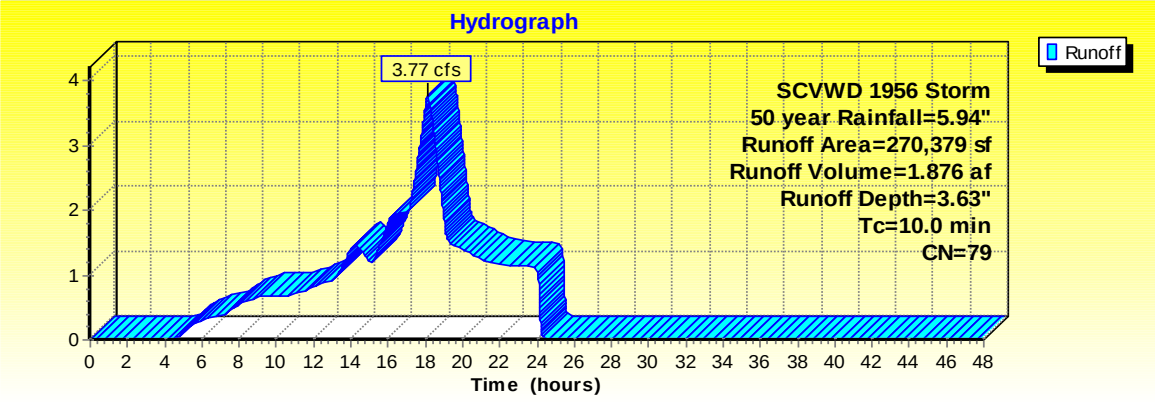


25-year Event - Post Development

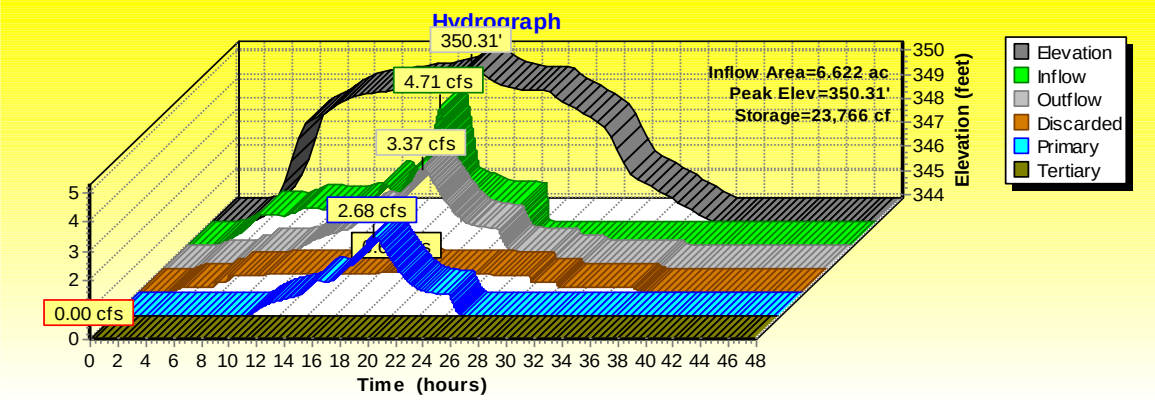


Elevation = water surface elevation
Inflow = all inflow into the storm water control
Outflow = sum of all outflow (discarded+primary+tertiary)
Discarded = flow out via infiltration
Primary = flow out of the 10" orifice and/or the top of the stand pipe (Orifice elevation=348.85, Stand Pipe Top Elevation=352.50)
Tertiary = flow out via over the emergency overflow weir (occurs when water surface elevation exceeds 353.50)
Note: full dewatering of subsurface retention occurs at hour 32.65, 8.65 hours after storm ends.

50-year Event - Pre-Development

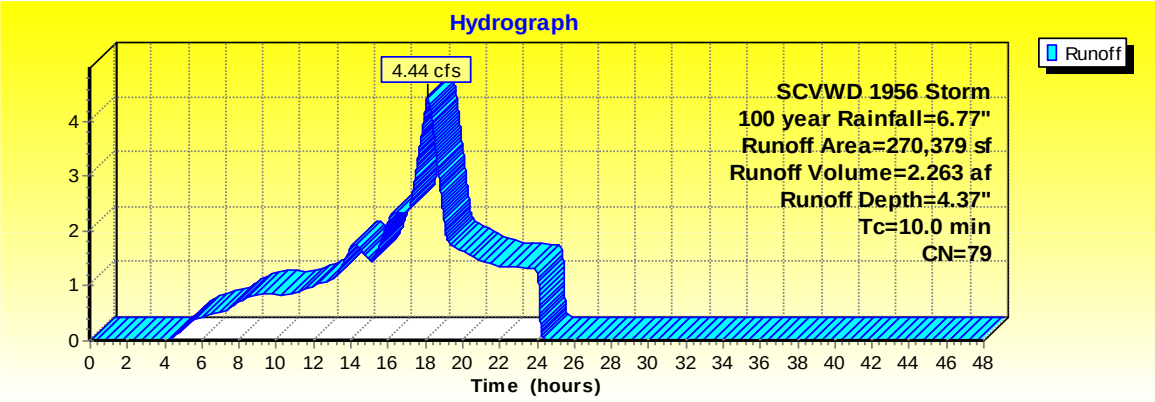


50-year Event - Post Development

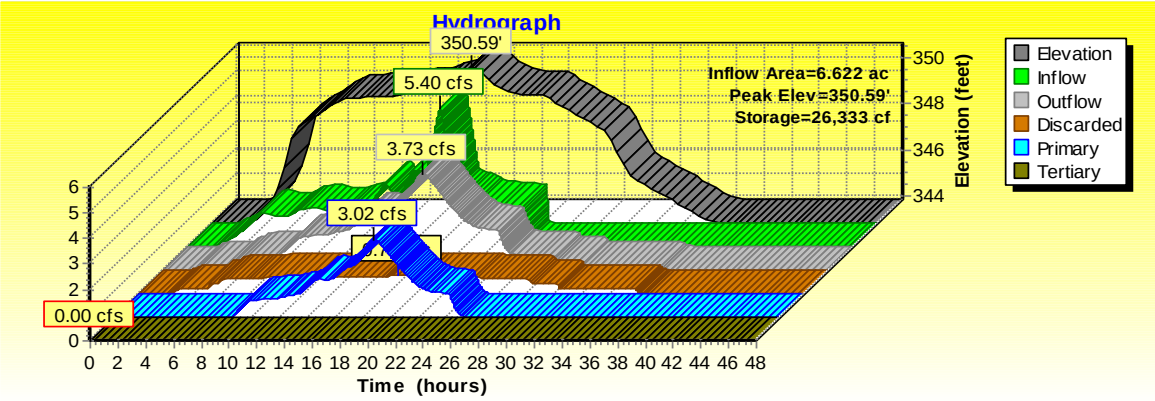


Elevation = water surface elevation
Inflow = all inflow into the storm water control
Outflow = sum of all outflow (discarded+primary+tertiary)
Discarded = flow out via infiltration
Primary = flow out of the 10" orifice and/or the top of the stand pipe (Orifice elevation=348.85, Stand Pipe Top Elevation=352.50)
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Note: full dewatering of subsurface retention occurs at hour 32.65, 8.65 hours after storm ends.

100-year Event - Pre-Development



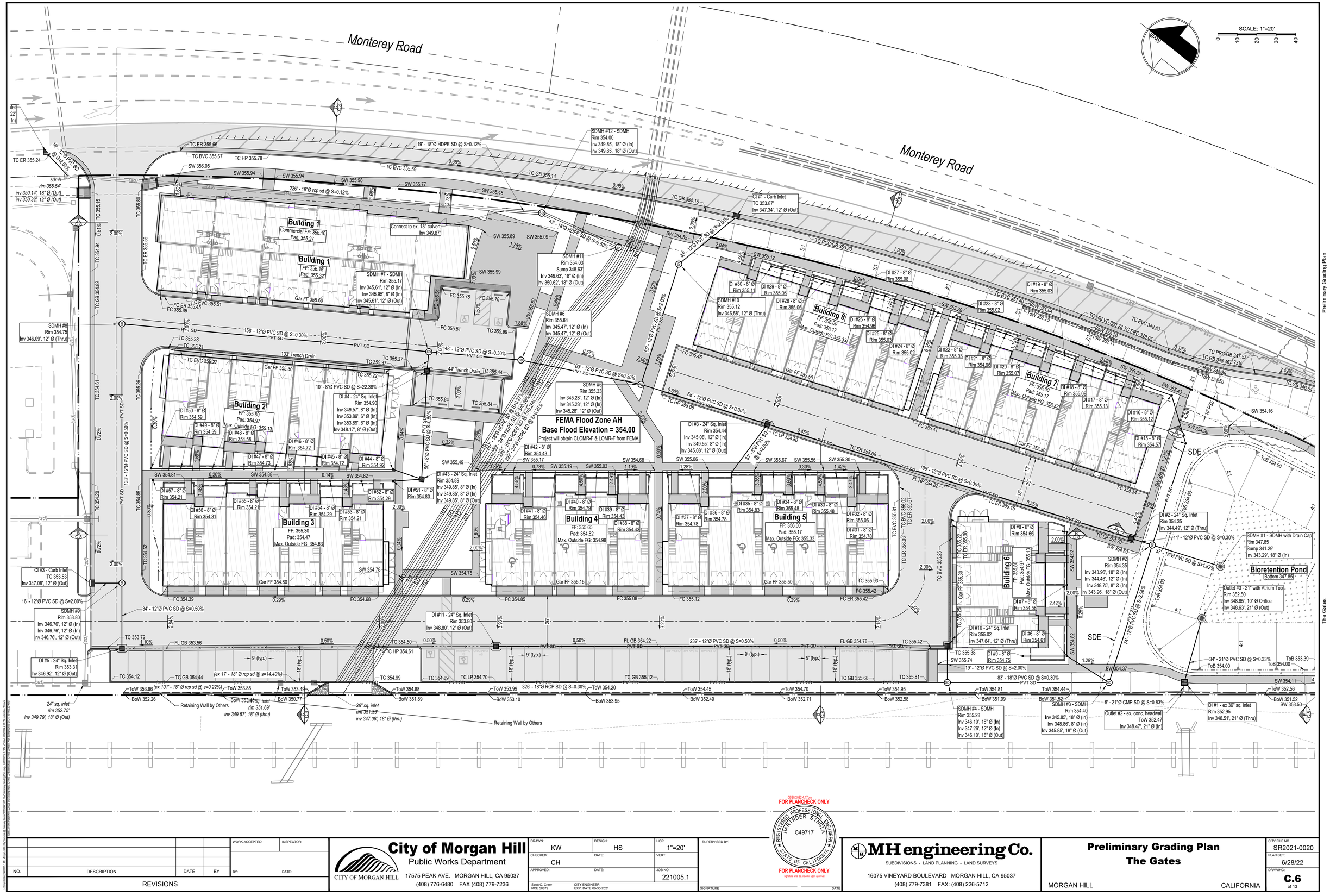
100-year Event - Post Development



Elevation = water surface elevation
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Discarded = flow out via infiltration
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Tertiary = flow out via over the emergency overflow weir (occurs when water surface elevation exceeds 353.50)
Note: full dewatering of subsurface retention occurs at hour 32.65, 8.65 hours after storm ends.

MH engineering Co.
16075 Vineyard Blvd. Morgan Hill, CA 95037 - (408) 779-7381

Attachment G:
Stormwater Management Plan & Details



NO.	DESCRIPTION	DATE	BY

REVISIONS

WORK ACCEPTED: INSPECTOR:
BY: DATE:

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 PEAK AVE. MORGAN HILL, CA 95037
(408) 776-6480 FAX (408) 779-7236

DRAWN:	DESIGN:	HOR.
KW	HS	1"=20'
CHECKED:	DATE:	VERT.
CH		
APPROVED:	DATE:	JOB NO.
		221005.1

Scott C. Creer
RCE 58879
CITY ENGINEER
EXP. DATE 06-30-2021

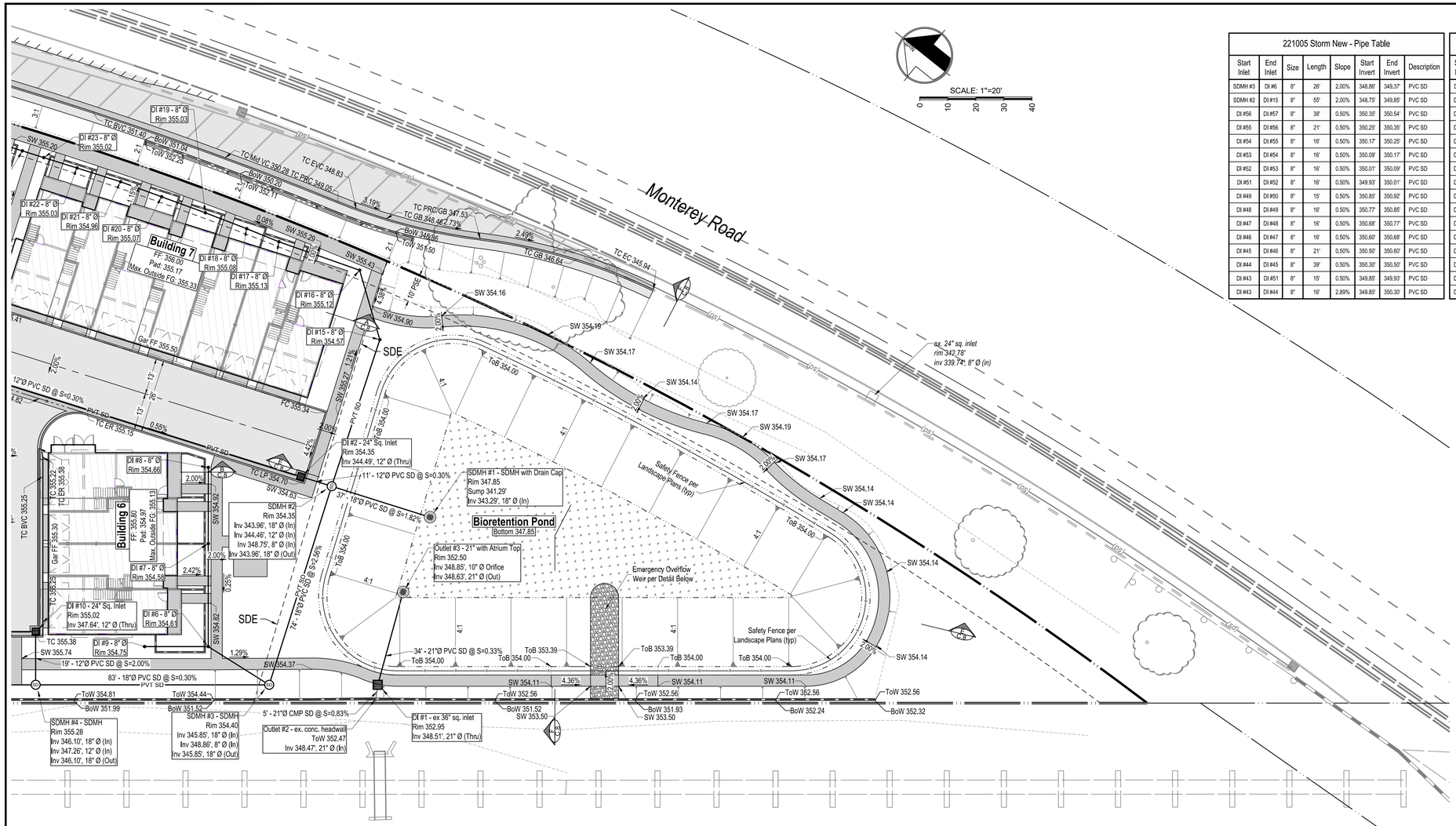
SUPERVISED BY:
SIGNATURE DATE

09/28/2022 4:17pm
FOR PLANCHECK ONLY
REGISTERED PROFESSIONAL ENGINEER
HARVINDER S. NAGRA
C49717
STATE OF CALIFORNIA
FOR PLANCHECK ONLY
signature shall be provided upon approval

MH engineering Co.
SUBDIVISIONS - LAND PLANNING - LAND SURVEYS
16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037
(408) 779-7381 FAX: (408) 226-5712

Preliminary Grading Plan
The Gates
MORGAN HILL CALIFORNIA

CITY FILE NO. SR2021-0020
PLAN SET: 6/28/22
DRAWING: **C.6** of 13



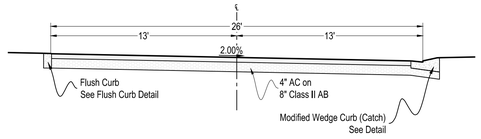
SCALE: 1"=20'

221005 Storm New - Pipe Table							
Start Inlet	End Inlet	Size	Length	Slope	Start Invert	End Invert	Description
SDMH #3	DI #6	8"	26'	2.00%	348.86'	349.37'	PVC SD
SDMH #2	DI #15	8"	55'	2.00%	348.75'	349.85'	PVC SD
DI #56	DI #57	8"	38'	0.50%	350.35'	350.54'	PVC SD
DI #55	DI #56	8"	21'	0.50%	350.25'	350.35'	PVC SD
DI #54	DI #55	8"	16'	0.50%	350.17'	350.25'	PVC SD
DI #53	DI #54	8"	16'	0.50%	350.09'	350.17'	PVC SD
DI #52	DI #53	8"	16'	0.50%	350.01'	350.09'	PVC SD
DI #51	DI #52	8"	16'	0.50%	349.93'	350.01'	PVC SD
DI #49	DI #50	8"	15'	0.50%	350.85'	350.92'	PVC SD
DI #48	DI #49	8"	16'	0.50%	350.77'	350.85'	PVC SD
DI #47	DI #48	8"	16'	0.50%	350.68'	350.77'	PVC SD
DI #46	DI #47	8"	16'	0.50%	350.60'	350.68'	PVC SD
DI #45	DI #46	8"	21'	0.50%	350.50'	350.60'	PVC SD
DI #44	DI #45	8"	39'	0.50%	350.30'	350.50'	PVC SD
DI #43	DI #51	8"	15'	0.50%	349.85'	349.93'	PVC SD
DI #43	DI #44	8"	16'	2.89%	349.85'	350.30'	PVC SD

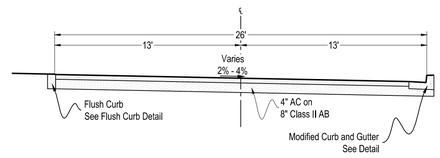
221005 Storm New - Pipe Table							
Start Inlet	End Inlet	Size	Length	Slope	Start Invert	End Invert	Description
DI #41	DI #42	8"	27'	0.50%	350.63'	350.76'	PVC SD
DI #40	DI #41	8"	21'	0.50%	350.52'	350.63'	PVC SD
DI #39	DI #40	8"	16'	0.50%	350.44'	350.52'	PVC SD
DI #38	DI #39	8"	12'	0.50%	350.38'	350.44'	PVC SD
DI #37	DI #38	8"	9'	0.50%	350.34'	350.38'	PVC SD
DI #36	DI #37	8"	12'	0.50%	350.28'	350.34'	PVC SD
DI #35	DI #34	8"	22'	0.50%	350.17'	350.28'	PVC SD
DI #35	DI #36	8"	21'	0.50%	350.17'	350.28'	PVC SD
DI #34	DI #33	8"	16'	0.50%	350.28'	350.36'	PVC SD
DI #33	DI #32	8"	16'	0.50%	350.36'	350.44'	PVC SD
DI #32	DI #31	8"	22'	0.50%	350.44'	350.55'	PVC SD
DI #29	DI #30	8"	12'	0.50%	351.38'	351.44'	PVC SD
DI #28	DI #29	8"	16'	0.50%	351.30'	351.38'	PVC SD
DI #27	DI #28	8"	16'	0.50%	351.22'	351.30'	PVC SD
DI #26	DI #27	8"	16'	0.50%	351.14'	351.22'	PVC SD
DI #25	DI #26	8"	16'	0.50%	351.06'	351.14'	PVC SD

221005 Storm New - Pipe Table							
Start Inlet	End Inlet	Size	Length	Slope	Start Invert	End Invert	Description
DI #24	DI #25	8"	13'	0.50%	351.00'	351.06'	PVC SD
DI #23	DI #24	8"	8'	0.50%	350.96'	351.00'	PVC SD
DI #22	DI #23	8"	12'	0.50%	350.90'	350.96'	PVC SD
DI #21	DI #22	8"	16'	0.50%	350.81'	350.90'	PVC SD
DI #20	DI #21	8"	16'	0.50%	350.74'	350.81'	PVC SD
DI #19	DI #20	8"	17'	0.50%	350.65'	350.74'	PVC SD
DI #18	DI #19	8"	16'	0.50%	350.57'	350.65'	PVC SD
DI #17	DI #18	8"	12'	0.50%	350.51'	350.57'	PVC SD
DI #16	DI #17	8"	30'	0.50%	350.36'	350.51'	PVC SD
DI #15	DI #16	8"	26'	2.00%	349.85'	350.36'	PVC SD
DI #7	DI #8	8"	27'	2.00%	350.10'	350.65'	PVC SD
DI #6	DI #9	8"	23'	2.00%	349.37'	349.82'	PVC SD
DI #6	DI #7	8"	37'	2.00%	349.37'	350.10'	PVC SD
DI #3	DI #35	8"	31'	2.00%	349.55'	350.17'	PVC SD

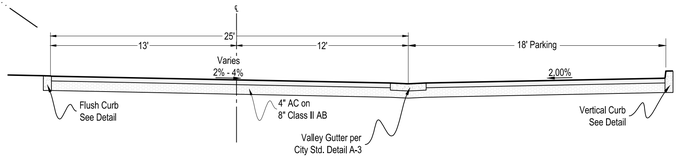
Typical Section - Private Drive
Fronting Buildings Not to Scale

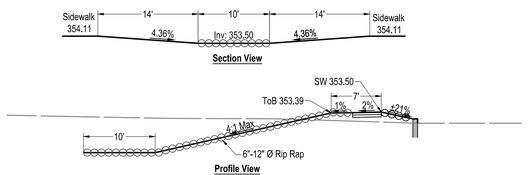


Typical Section - Private Drive
Fronting Buildings 9 & 10 Not to Scale

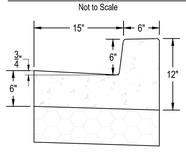


Typical Section - Private Drive
Fronting Buildings 6 & 7 Not to Scale

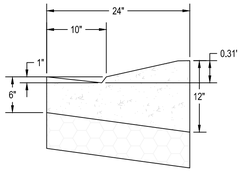




Modified Curb and Gutter Detail
Not to Scale

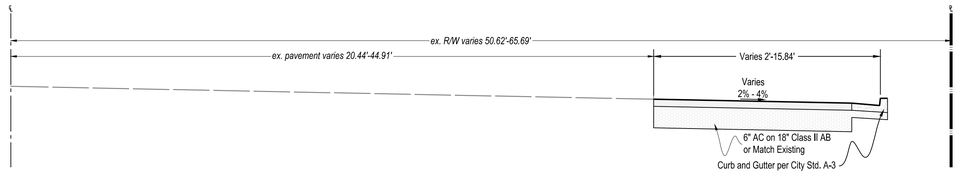


Modified Wedge Curb Detail (Catch)
Private Street Not to Scale

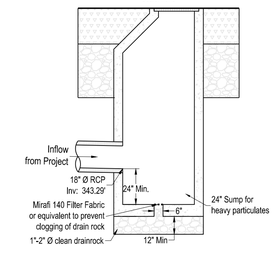


Preliminary Earthwork			
	Cut	Fill	Net
Rough Grade	8,577 CY	6,132 CY	2,445 CY (Cut)
Trench Spoils	1,481 CY	0 CY	1,481 CY (Cut)
Total	10,058 CY	6,132 CY	3,926 CY (Cut)

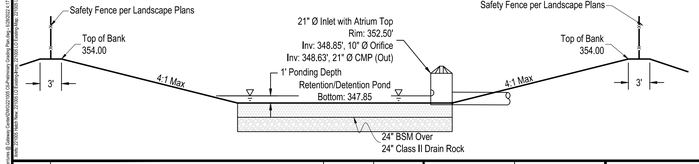
Typical Section - Monterey Road Widening
Looking South Not to Scale
TI = 9 R = 10



Bioretention Pond Bubble Up Detail
Scale: none

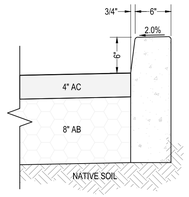


Bioretention Pond Weir Detail
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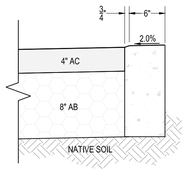


Retention/Detention Pond Detail
Not to Scale

Vertical Curb Detail
Not to Scale



Flush Curb Detail
Not to Scale



08/29/2022 4:17pm
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signature shall be provided upon approval

NO.	DESCRIPTION	DATE	BY

REVISIONS

WORK ACCEPTED: INSPECTOR:
BY: DATE:

CITY OF MORGAN HILL

City of Morgan Hill
Public Works Department
17575 PEAK AVE. MORGAN HILL, CA 95037
(408) 776-6480 FAX (408) 779-7236

DRAWN:	DESIGN:	HOR:
KW	HS	1"=20'
CHECKED:	DATE:	VERT.
CH		
APPROVED:	DATE:	JOB NO.
		221005.1

Scott C. Creer RCE 58879 CITY ENGINEER EXP. DATE 06-30-2021

SUPERVISED BY:
SIGNATURE DATE

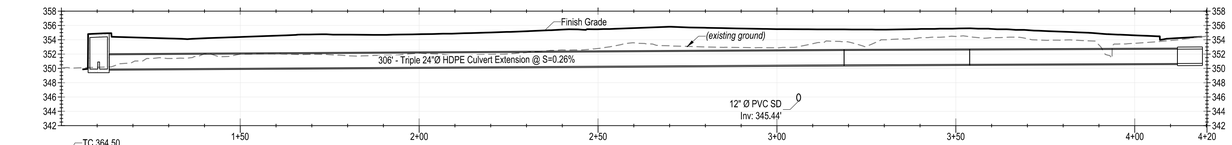
MH engineering Co.
SUBDIVISIONS - LAND PLANNING - LAND SURVEYS
16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037
(408) 779-7381 FAX: (408) 226-5712

Preliminary Grading Plan
The Gates
MORGAN HILL CALIFORNIA

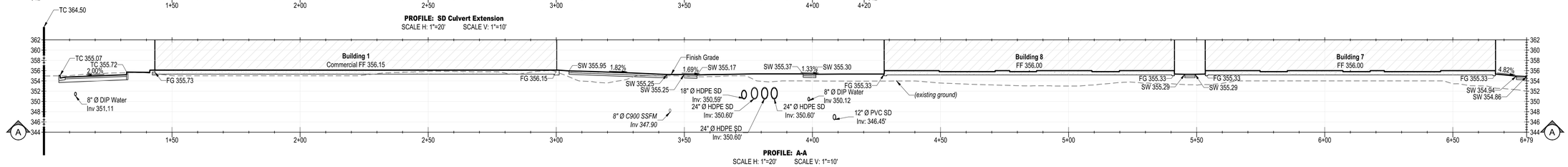
CITY FILE NO. SR2021-0020
PLAN SET: 6/28/22
DRAWING: **C.7** of 13

Preliminary Grading Plan
The Gates

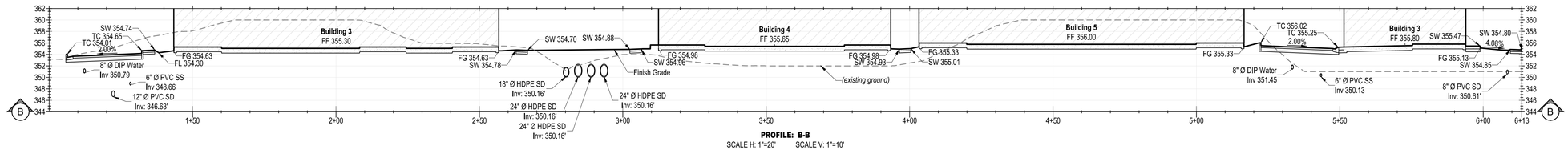
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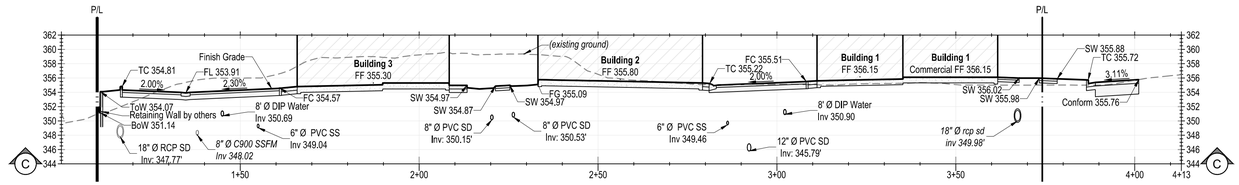
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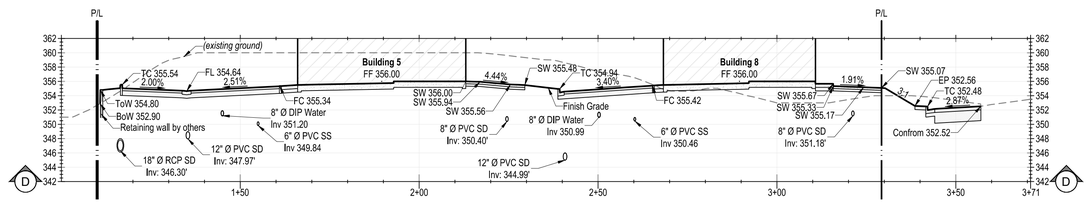
PROFILE: A-A
SCALE H: 1"=20' SCALE V: 1"=10'



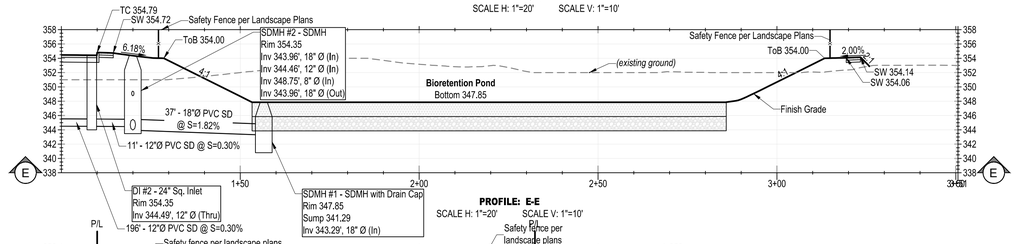
PROFILE: B-B
SCALE H: 1"=20' SCALE V: 1"=10'



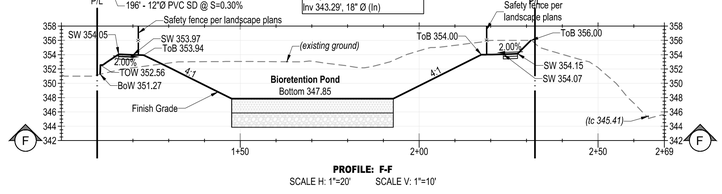
PROFILE: C-C
SCALE H: 1"=20' SCALE V: 1"=10'



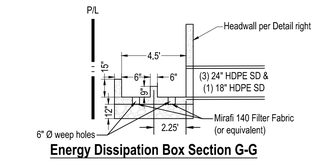
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SCALE H: 1"=20' SCALE V: 1"=10'



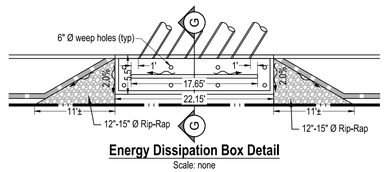
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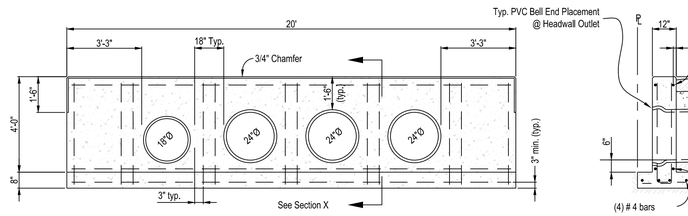
PROFILE: F-F
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Energy Dissipation Box Section G-G

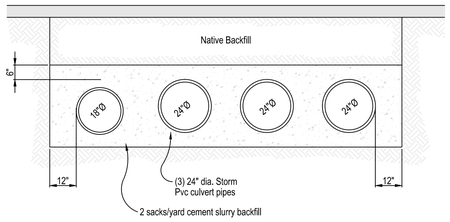


Energy Dissipation Box Detail
Scale: none



Headwall Detail
Scale: None

Section X
Scale: None



Culvert Extension Detail

Preliminary Grading Plan - Sections
The Gates

NO.	DESCRIPTION	DATE	BY

REVISIONS

WORK ACCEPTED: INSPECTOR:
BY: DATE:

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 PEAK AVE. MORGAN HILL, CA 95037
(408) 776-6480 FAX (408) 779-7236

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KW	HS	1"=20'
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CH		1"=10'
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		221005.1

Scott C. Creer RCE 58879 CITY ENGINEER EXP. DATE 06-30-2021

SUPERVISED BY:
SIGNATURE DATE

06/28/2022 4:17pm
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REGISTERED PROFESSIONAL ENGINEER
HARVINDER S TINGLA
C49717
STATE OF CALIFORNIA
FOR PLANCHECK ONLY
signature shall be provided upon approval

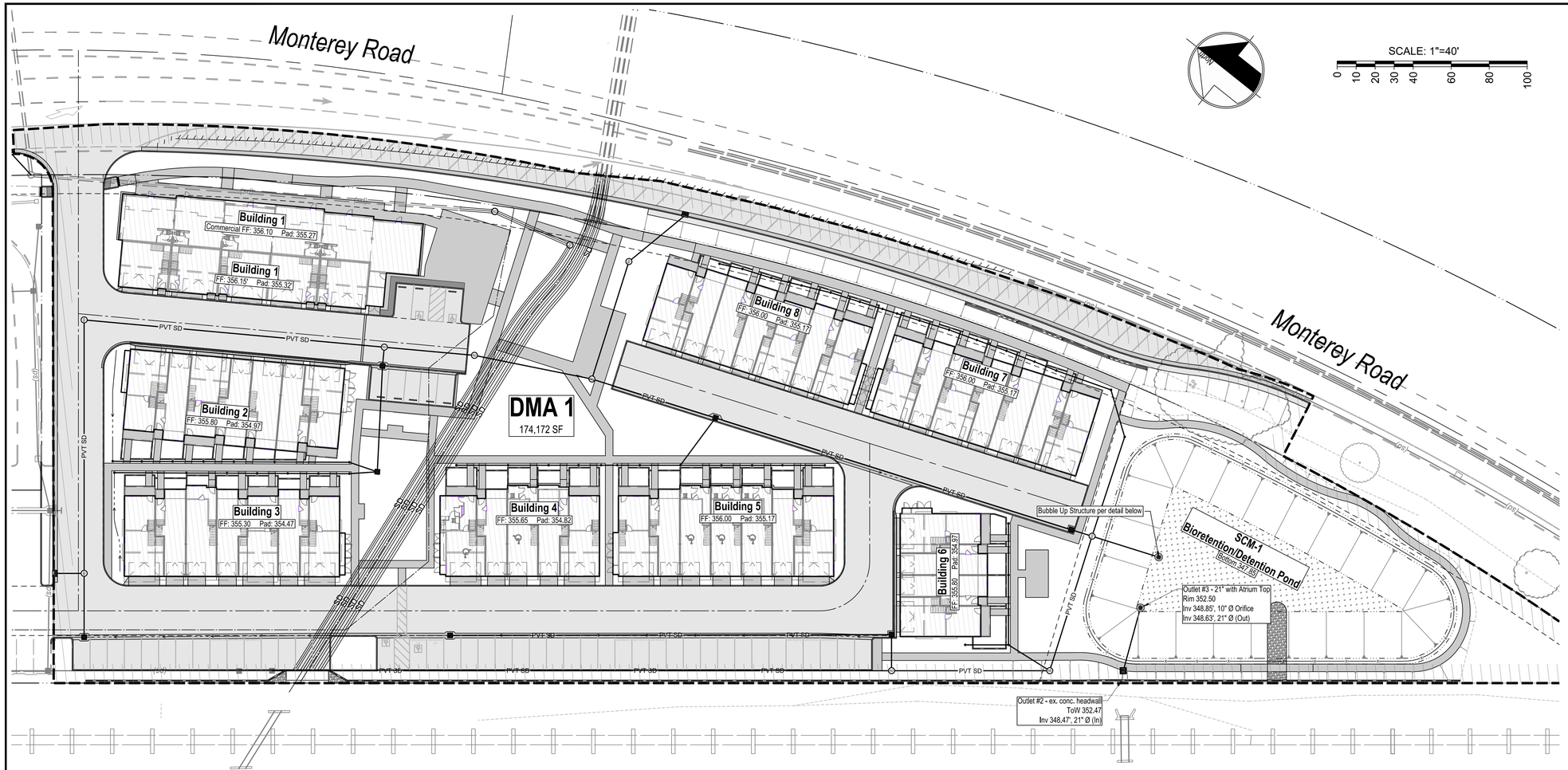
MH engineering Co.
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16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037
(408) 779-7381 FAX: (408) 226-5712

Preliminary Grading Plan - Sections
The Gates
MORGAN HILL CALIFORNIA

CITY FILE NO. SR2021-0020
PLAN SET: 6/28/22
DRAWING: **C.8** of 13

The Gates

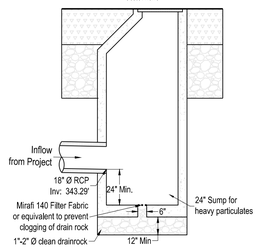
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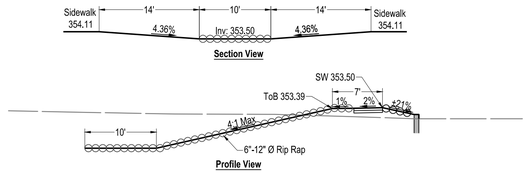


LID Sizing Table									
DMA	BMP	Total DMA Area	DMA Impervious Area	i	C	Required Treatment Area	Provided Treatment Area	Requied Retention Volume	Provided Retention Volume
1	SCM 1	174,172 SF	112,024 SF	0.64	0.44	4,481 SF	4,888 SF	11,907 CF	11,961 CF

Bioretention Pond Bubble Up Detail

Scale: none



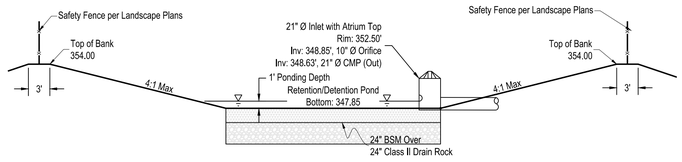


Bioretention Pond Weir Detail

Scale: none

Retention/Detention Pond Detail

Not to Scale



Retention Volume Calculations

Post Construction Storm Water Management Calculations
Per Resolution No. R3-2013-0032

1.) Determination of the Retention Tributary Area

a.)

Impervious Areas									
DMA	Pre-Development			Post-Development					
				Replaced			New		
	Roof	PCC	AC	Roof	PCC	AC	Roof	PCC	AC
1	0	0	0	0	0	0	39,429	25,836	46,760

Pervious vs Impervious Areas									
DMA	Total Area	Pre-Development		Post-Development					
		Pervious	Impervious	Pervious	Impervious			i	C
					Replaced	New	Total		
1	174,172	174,172	0	62,148	0	112,024	112,024	0.64	0.44
Total	174,172	174,172	0	62,148	0	112,024	112,024	0.64	0.44

Atotal = drainage area (sf)
Aroofs = roof areas (sf)
Apco-walks/parking = area of pcc walks & parking lot
Apcc -streets = area of pcc walks and curbs (sf)
AAC-streets = Street pavement areas (sf)
Apervious = Planted & Open Areas (sf)
Aimpervious = total impervious roof areas, PCC areas & AC areas (sf)
i = fraction of the tributary area that is impervious = Aimpervious / Aarea
Carea# = Area runoff coefficient=C = 0.858i3 - 0.782 + 0.774i + 0.04

b.)adjustments for redevelopment project

DMA	DMA Area	APA	Aother	Areplaced	Aretention
1	174,172	0	0	0	174,172
Total	174,172	0	0	0	174,172

APA = Undisturbed or Self-Retaining Planted or Open Areas
Aother = Impervious Areas that discharge to independent infiltrating Areas
Areplaced = Replaced Impervious Areas
Aretention = Retention Tributary Area = DMA Area - APA - Aother - (0.5 x Areplaced)

2.) Determination of Retention Volume

a.) retention requirement
1 = WMZ = watershed management zone per WMZ map

b.) WMZ 1 Runoff Retention Requirement = Retain 95th percentile 24-hour rainfall event
1.85 = D95 = 95th Percentile Rainfall Depth

c.) compute the runoff coefficient

DMA	DMA Area	Impervious Area	i	C
1	174,172	112,024	0.64	0.44
Total	174,172	112,024	0.64	0.44

C = 0.858i3 - 0.782 + 0.774i + 0.04
i = fraction of the tributary area that is impervious = Aimpervious / Aproject

d.) Project Type
Mixed Use

e.) Compute Retention Volume required

DMA	Aretention	i	C	D95	Vretention
1	174,172	0.64	0.44	1.85	11.907
Total	**174,172**	0.64	0.44	1.85	11.907

C = 0.858i3 - 0.782 + 0.774i + 0.04
i = fraction of the tributary area that is impervious = Aimpervious / Aproject
Vretention = Required Retention Volume = Aretention x C x (D95/12)

3.) Retention Volume Provided

Surface Volume Calculations			
Elevation	Surface Area	Incremental Volume	Cumulative Volume
347.85	4,888.43 SF	0.00 CF	0.00 CF
348	5,096.78 SF	748.89 CF	748.89 CF
348.85	6,330.85 SF	4,856.74 CF	5,605.63 CF

Bioretention Volume				
Material	Area	Depth	% Voids	Volume
Biomedia	4,888.43 SF	24 in.	25%	2,444.22 CF
Drainrock	4,888.43 SF	24 in.	40%	3,910.75 CF

3d.) Total Volume Provided
Total Volume: Vtotal = Vsurface + Vbioretention = 11,961 CF
11,961CF ≥ 11,907; therefore ok

06/28/2022 3:28pm
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signature shall be provided upon approval

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WORK ACCEPTED: INSPECTOR:
BY: DATE:

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
17575 PEAK AVE. MORGAN HILL, CA 95037
(408) 776-6480 FAX (408) 779-7236

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KW	HS	1"=40'
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Scott C. Creer RCE 58879 CITY ENGINEER EXP. DATE 06-30-2023

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SIGNATURE DATE

MH engineering Co.
SUBDIVISIONS - LAND PLANNING - LAND SURVEYS
16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037
(408) 779-7381 FAX: (408) 226-5712

Preliminary Stormwater Control Plan
The Gates
MORGAN HILL CALIFORNIA

CITY FILE NO. SR2021-0020
PLAN SET: 6/28/22
DRAWING: **C.9** of 13

Preliminary Stormwater Control Plan
The Gates

Plotted: 06/28/2022 - 1:38pm User: HS File: S:\Projects\Gates\Civil\Exhibits\Preliminary Stormwater Control Plan\Preliminary Stormwater Control Plan.dwg

Appendix F

Floodplain Impact Memorandum

Appendix F

Floodplain Impact Memorandum

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
870 Market Street, Suite 1278
San Francisco, CA 94102-2906
415-433-4848
FAX 415-433-1029

June 2, 2022

Valley Water
Attn: Benjamin Hwang, PE
Community Projects Review Unit
Watershed Stewardship and Planning Division

Subject: Monterrey 8 Development Impact on Floodplain

Dear Valley Water:

We have completed our hydraulic impact analysis for the Monterrey Rd proposed development and based on the Llagas Creek modeling results and the information below, the proposed development does not present significant impact to the existing floodplain that is shown on the FEMA effective map. Current modeling efforts show that the spills from Llagas Creek don't reach this site and that it is likely that this site could be removed entirely from the floodplain through a LOMR process. See Attachment 1 for Llagas modeling results. The property owner, City Venture, would like to proceed with a design that meets the current effective FIRM rather than waiting for a lengthy LOMR process.

Attachment 1 to this letter shows that the Project Site is not within the floodplain of the Llagas Creek watershed. So instead of using the spills from Llagas, our focus is the two sources of run-on from neighboring properties that currently flow through the open ditch on the Project Site. The first is the flow that is from the private detention basin which has pumps and a 48-inch gravity outfall. We have been instructed by the City that the pumps will not be operating and to calculated the flow from the 48-inch gravity outfall during a 100-year storm event. While this seams like it should be pretty straight forward, it is not. This area has been modeled in numerous scenarios and system configurations with plugs in some pipes and the Butterfield Channel capacity changing that it not a straight forward exercise without detailed as-builts of the detention basin and the surrounding infrastructure.

However, I believe this information and the exact flow from the gravity 48-inch pipe are irrelevant based on the way the 48-inch pipe is conveyed to existing triple 24-inch culverts (see attached as-built). What the proposed development proposes to construct is extending the existing 24-inch pipes under the site, vs into the open ditch. There is no runoff from the proposed site that enters into the proposed triple 24s that are conveying the run-on to the Project Site. The site runoff is conveyed to the detention basin. These existing 24-inch pipes are inlet controlled and will dictate the flow across the site. The proposed development includes extending these pipes which will allow equal conveyance to what is there today.

To analyze the existing triple 24s into the ditch and the proposed longer 24s to the ditch closer to the railroad, I modeled the existing and post project in HY-8 using a range of flows. The upstream head is the same when the culverts are extended to the railroad ditch and I do not anticipate the development to have any impact on the existing system. In addition, I calculated the maximum flow through the triple 24s which results in 120cfs and modeled that in HY-8 and the upstream head is the same under both existing and proposed. This high flow is unlikely to occur as the majority of the flow from the private detention basin is directed to the Butterfield Channel. The HY-8 is set up using the County's LiDAR and making some cross sections of the

existing ditch for the tailwater condition. It should be noted that the datum of the LiDAR is not the same as the as-builts.

There is also run-on from an 18-inch pipe that is also being extended without any runoff from the site entering that pipe. Finally, the slope of Monterrey Road is in the southern direction and any overland spills from the detention basin would not be directed onto the site.

Attachment 2 contains the design drawing and the existing and proposed schematics to get a better understanding of what is happening for those who don't read design drawings frequently.

Please let me know if you have any questions or would like to set up a call to discuss further.

Sincerely,
Schaaf & Wheeler



Robin J. Lee, PE
Senior Project Manager

Attachments:

1 – Updated Llagas Creek Modeling

2 – Design Drawings and Existing and Proposed Schematics

ATTACHMENT 1

LLAGAS CREEK MODELING RESULTS

Existing Condition Inundation Map

Santa Clara Valley Water District

Site

N

Legend

Flow Depths (Existing)

ft

- 0.010000 - 1.000000
- 1.000001 - 2.000000
- 2.000001 - 3.000000
- 3.000001 - 6.500000

0 2,800 5,600 11,200

Feet

Approximate Scale

GIS themes are for illustration and general analysis purposes only and are not accurate to surveying or engineering standards. Information is not guaranteed to be accurate, current, or complete and use of this information is your responsibility.

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

Upper Llagas Creek Flood Protection Project Special Flood Hazard Areas

POST-PROJECT

Panel 1 of 9

0 500 1,000 1,500 Feet

SPECIAL FLOOD HAZARD AREAS

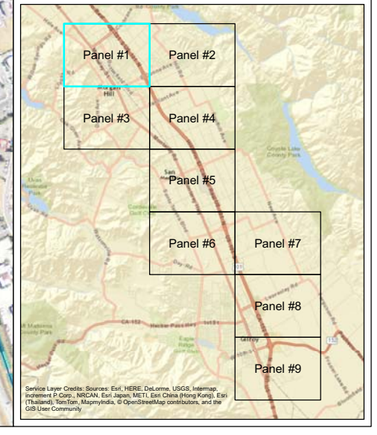
- Culvert
- Post Project Zone AE
- Post Project Floodway
- Post Project Zone X (Shaded)
- Floodway Cross Section
- BFE
- Corporate Limits

N

Certification:

This is to certify that the data on this workmap is accurate and the floodplain analyses have been completed in accordance with sound engineering practices, per NFIP regulations Part 65.2 (B).

Charles D. Anderson RCE NO. 43776



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ATTACHMENT 2

DESIGN DRAWING

EXISTING CONDITION SCHEMATIC

PROPOSED CONDITION SCHEMATIC

202.14B BUTTERFIELD/JARVIS/SUTTER-A.D. #1998-1

ALL DRAINAGE FACILITIES THIS SHEET TO BE MAINTAINED BY THE ASSOCIATION OF THE BUSINESS PARK AT MORGAN HILL RANCH.

CHAIN LINK FENCE & GATE SHALL BE INSTALLED PER CALTRANS STD. PLAN A85

16' DBL HUNG GATE

6' CHAIN LINK FENCE

FLOAT CONTROL STRUCTURE

22'

1" = 20'

Inlet controlled 24inch pipes

48-inch gravity overflow

The existing and post proejct flows will be the same and regulated by these triple 24s

Proposed development pipes

Proposed development pipe

M O N T E R E Y R O A D

S T O R M D R A I N L I N E "C"

SCALE – H: 1"=40'
V: 1"=4'

11 12 13 14 15 16 17 18 19 20 21 22 23

360 350 340

PROPOSED GRADE(SEE GRADING PLAN)

EXIST GRADE @ 48"

450 LF TWIN 14" PVC FORCE MAIN @ 0.0062

443 LF 48" SD @ 0.001

361 LF 36" RCP @ 0.0018

363 LF 36" SD @ 0.0018

333 LF 18" SD @ .001

126'-15"SD S=0.0024

266'-15"SD S=0.0024

50 LF 48" SD @ 0.001

34 LF 48" SD @ 0.001

PUMP STATION

PUMP DISCHARGE INV. 348.50

INV. 348.42

NO.	DESCRIPTION	DATE	BY
1	Added 15"SD	2-11-99	

PATH Revisions

WORK ACCEPTED: INSPECTOR:

AS-BUILT CORRECTIONS BY: TRB DATE: 3/25/00

DRAWN: DESIGN: DATE:

CHECKED: DATE:

APPROVED: DATE: 9/21/98

CITY ENGR JAMES M. ASHCRAFT RCE 28921 EXP 3-31-99

HOR: 1" =40'
VERT: 1" =4'
JOB NUMBER:

City of Morgan Hill
Public Works Department
100 Edes Ct. Morgan Hill, CA 95037 (408)776-7337, Fax (408)779-8282

RACKAY & SIMPS
1955 THE ALAMEDA (408) 985-0958 SAN JOSE CALIF.
Drawn by: A. NAVASERO
Designed by: R. BRADEN
Checked by: R. BRADEN
Job No. 11261-2 Date: 06-98

REGISTERED CIVIL ENGINEER — STATE OF CALIFORNIA — EXPIRES DECEMBER 31, 1999

ASSESSMENT DISTRICT NO. 1998-1
IMPROVEMENT PLANS FOR
LINE "C" STORM DRAIN

9-17-1998 darrell-pp4.dwg

FILE NUMBER: 202
PRINT DATE: JUNE 1998
SHEET NUMBER: 12 OF 39

EXISTING


Monterey Rd
Jarvis Dr
18"
3x24"
48"
36"
Old Monterey Rd
Project Site
3'x4'
Berkshire Dr
Drag the slider or clic
Detention Basin
Monterey Rd
Sutter Blvd

PROPOSED


Monterey Rd
Jarvis Dr
18"
18"
3x24"
36"
48"
Old Monterey Rd
Project Site
3' x4'
Berkshire Dr
Drag the slider or clic
Detention Basin
Monterey Rd
Sutter Blvd

3

Appendix G

Exterior Noise and Façade Acoustical Analysis

Appendix G

Exterior Noise and Façade Acoustical Analysis

Veneklasen Associates
Consultants in Acoustics | Noise | Vibration | AV | IT

October 12, 2022

City Ventures
444 Spear Street, Suite 200
San Francisco, California 94105

Attention: **Samantha Hauser | Senior Vice President of Development**

Subject: **The Gates**
Morgan Hill, California
Exterior Noise and Façade Acoustical Analysis
VA Project No. 4616-025

Dear Samantha:

Veneklasen Associates (Veneklasen) has completed our review of the exterior noise and vibration levels at the proposed The Gates development in Morgan Hill, California. This updated report represents the results of our findings, utilizing the traffic reports from Hexagon Transportation Consultants dated November 27, 2019 and July 1, 2022. Veneklasen has utilized measurements and computer modeling to assess noise levels and mitigation requirements for the exterior façade.

1.0 INTRODUCTION

This study was conducted to determine the impact of the exterior noise and vibration sources on the subject project in Morgan Hill, California, and to determine the method, if any, required to satisfy the noise and vibration standards of the State of California and the City of Morgan Hill.

The project consists of 3-story townhouse-style buildings. The project is bounded by Monterey Road to the east and north of the project boundary, Union Pacific Railroad (UPRR) to the west and south, and existing commercial land uses to the northwest.

2.0 CRITERIA

LDN (Day-Night Noise Level) is the 24-hour equivalent (average) sound pressure level in which the nighttime (10 pm – 7 am) noise is weighted by adding 10 dB to the hourly level. Since this is a 24-hour metric, short-duration noise events (truck pass-by's, buses, trains, etc.) are not as prominent in the analysis.

Leq (equivalent continuous sound level) is defined as the steady sound pressure level which, over a given period of time, has the same total energy as the actual fluctuating noise.

VdB is a measurement of ground velocity relative to 10^{-6} inches per second.

2.1 Interior Noise Levels – Residential

The State of California Building Code (Section 1207, "Sound Transmission") and the City of Morgan Hill Noise Element state that interior LDN values for residential land uses are not to exceed 45 LDN in any habitable room associated with exterior noise sources.

If the windows must be closed to meet an interior level of 45 LDN, then a mechanical ventilating system or other means of natural ventilation may be required.

2.2 Maximum Instantaneous Noise Levels – Residential

The City of Morgan Hill Noise Element (Goal 7, "Prevention of Noise from Interfering with Human Activities or Causing Health Problems") states that noise levels in new residential development exposed to an exterior LDN 60 dBA or greater should be limited to a maximum instantaneous noise level in bedrooms of 50 dBA and

55 dBA in all other habitable rooms. Veneklasen utilized the L1 metric "instantaneous noise level" for train pass-by's.

2.3 Exterior Noise Levels – Residential

The City of Morgan Hill Noise Element sets an exterior noise level LDN goal of 60 dBA in residential areas where outdoor use is a major consideration. Where the City determines that providing an LDN of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an LDN of 65 dBA may be permitted. Also, the maximum outdoor noise level for new residences near the railroad shall be 70 dBA LDN.

It is understood that private exterior areas (balconies, patios) do not fall under this criterion.

2.4 Vibration Criteria – Residential

There are no regulatory requirements for vibration levels.

The "Transit Noise and Vibration Impact Assessment Manual" from the Federal Transit Administration, U.S. Department of Transportation, dated September 2018 ("FTA Report No. 0123") is used as a guideline. The criterion presented in Table 6-3 of that report for infrequent events (defined as fewer than 30 per day) in residences is that the vibration levels do not exceed 80 VdB.

2.5 Conditions of Approval

To date, Veneklasen has not received the conditions of approval (COAs) for the subject project.

Therefore, our comments herein are based on minimum Building Code requirements with references to the City of Morgan Hill General Plan.

3.0 EXTERIOR NOISE AND VIBRATION ENVIRONMENT

3.1 Noise and Vibration Measurements

Railroad operations from UPRR and traffic from Monterey Road are the primary sources of noise affecting the site.

Veneklasen visited the site on November 8, 2021, and placed meters at the project site to capture the hourly sound levels for a 42-hour period. Two (2) Bruel & Kjaer type 2270 sound level meters were installed to perform sound measurements. One meter was placed 40 feet from the Union Pacific Railroad, and the other meter was placed approximately 100 feet from the Monterey Road. We also carried out short measurements at four (4) locations to understand the noise distribution across the site. Lastly, Veneklasen measured the ground vibration levels at both long-term measurement locations to assess the vibration impact due to the train pass by's on the proposed site.

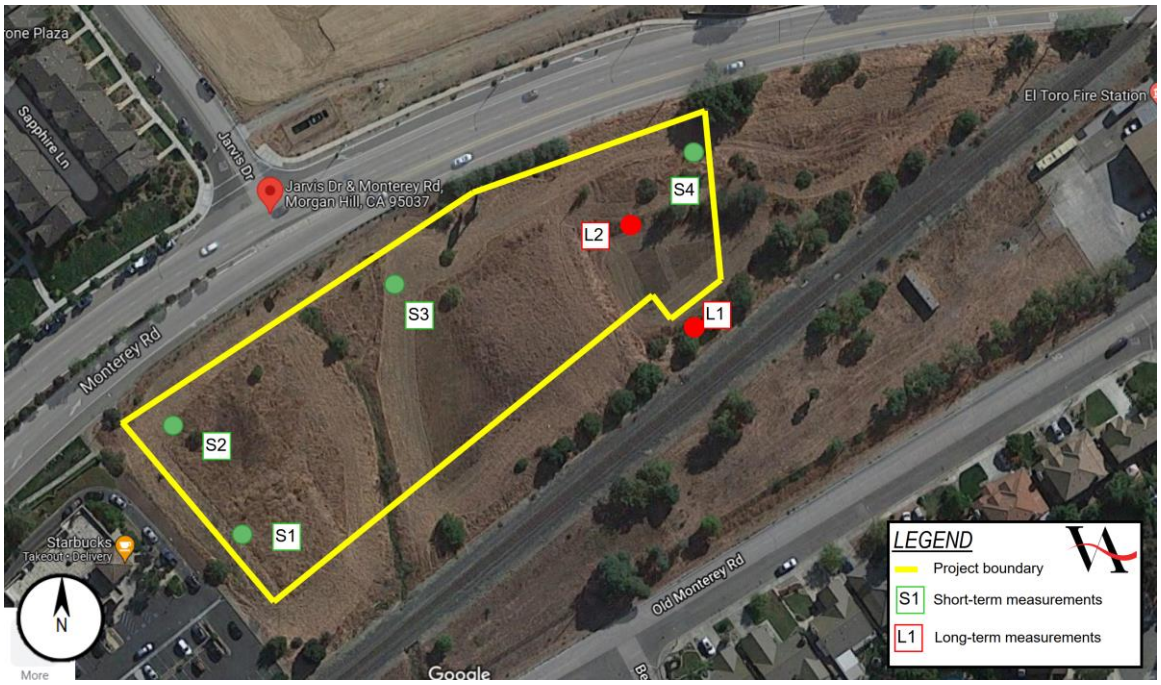
Table 1 summary of Veneklasen's noise and vibration measurements at locations shown in Figure 1.

Table 1 – Measured Sound Levels

Measurement	Vibration Velocity Level, VdB	Train Pass-by /Road Events, dBA	LDN
Noise, Train	-	90-95	66
Noise, Road	-	70-72	68
Vibration, Train	71	-	-

Veneklasen utilizes statistical methodologies[1] for establishing design levels for a project, as statistical methods provide a more reliable understanding of site environmental noise. This has been found useful for shorter environmental data sets, which are typical of this site.

Figure 1 – Project Site with Measurement Locations



3.2 Computer Modeling

Veneklasen has utilized the Traffic Noise Model computer software program developed by the FHWA (Federal Highway Administration TNM 2.5) in order to predict vehicular noise levels at various locations. The primary purpose of the computer model was to determine how the noise environment will change due to traffic and site changes.

Traffic counts for Monterey Road were obtained from the City of Morgan Hill Public Works Department and supplemented based on the Hexagon Transportation Consultants Traffic Impact Analysis and Trip Generation and Operation Analysis reports. The Average Daily Traffic (ADT) volume on Monterey Road is approximately 14,000 (2015 count) per the City of Morgan Hill. The engineering report utilizes a 2.76% growth in traffic per year based on the City of Morgan Hill Traffic Impact Analysis report and traffic counts from 2009. Using the above information, Veneklasen predicted the traffic count level in year 2022, resulting in approximately 17,000 ADT. This is consistent with the 2022 report indicating a peak hour traffic volume of approximately 1500-2800. Since ADT is accepted as approximately 10x the peak hour volume, the ADT based on those peak hour volumes is on the same order of magnitude as obtained through the growth calculation.

Using the 17,000 ADT for 2022, the calculated sound level at a distance of 60 feet from the centerline of the road is 66-69 LDN. This corresponds with the levels that Veneklasen measured for Monterey Road. We also predicted the year 2032 noise level using a traffic level increase of 2.76% per year, and that results in an increase in sound level of 1 dB LDN.

Project-generated trips are included in this growth. Per the Hexagon report, the project is anticipated to generate 55 new vehicle trips during the AM peak hour and 84 new vehicle trips during the PM peak hour. These represent an increase in peak-hour traffic volume of 1-3% for each intersection, resulting in an increase

[1] LoVerde, John; Dong, Wayland; Rawlings, Samantha. "Noise Prediction of Traffic on Freeways and Arterials from Measured Data." Noise-Con 2014. Fort Lauderdale, Florida.

in overall sound level of 0.1 dB, which is indistinguishable to the human ear. The project-generated trips are included in the assessment but have no impact on the overall sound level.

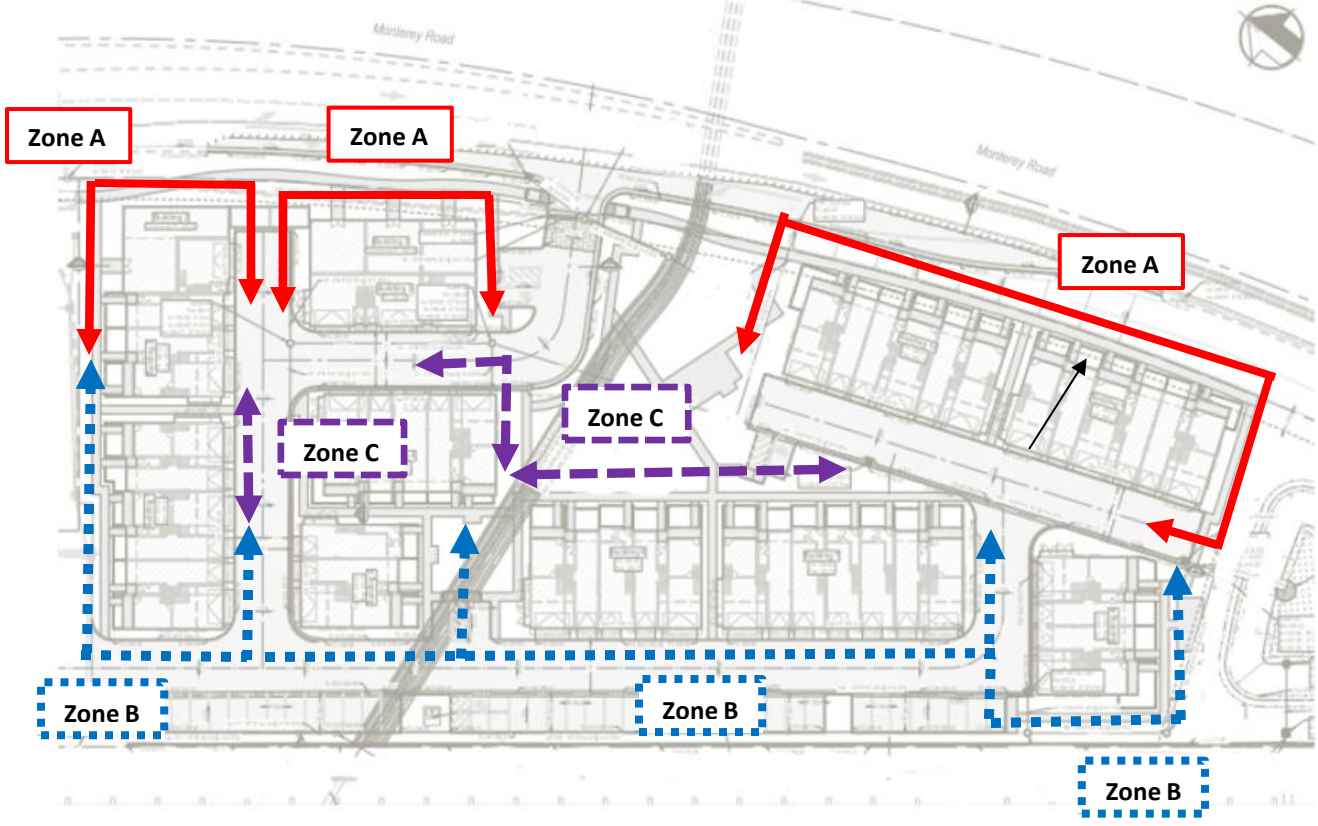
3.3 Overall Exterior Exposure

Based on the computer model and measurements, Veneklasen calculated the noise level at different locations across the project site. To simplify the presentation of the exterior noise levels, we have separated the site into locations based on the sound exposure and required mitigation. The predicted sound levels at each zone, shown in Figure 2, are listed in Table 2 below.

Table 2 – Exterior Noise Levels

Location	Floor	Exterior Noise Level, LDN	Train Pass-by/Road Traffic Level, dBA
Zone A	All	69-70	72-74
Zone B	All	65-67	90-94
Zone C	All	60-65	72
Remaining Units	All	< 60	< 70

Figure 2 – Noise Zones, Levels 1 to 3



4.0 INTERIOR NOISE

4.1 Exterior Facade Construction

Veneklasen anticipates the project will utilize a typical standard exterior construction which consists of a 3-coat stucco or HardiPlank lap siding finish over sheathing on wood studs with a single layer of gypsum board on the interior and batt insulation in the cavity.

Where applicable due to train pass-by events, an upgraded exterior wall assembly has been specified per the following construction:

OPTION #1

- 7/8" 3-coat exterior cement plaster at 10 psf
- 2x6 wood studs with batt insulation in the cavity
- 1-inch airspace
- 2x6 wood studs with batt insulation in the cavity
- 5/8" type 'x' gypsum board
- 5/8" type 'x' gypsum board

OPTION #2

- HardiePlank lap siding at 2.3 psf
- 5/8" DensGlass exterior gypsum sheathing at 2.5 psf
- 5/8" DensGlass exterior gypsum sheathing at 2.5 psf
- 2x6 wood studs with batt insulation in the cavity
- 1-inch airspace
- 2x6 wood studs with batt insulation in the cavity
- 5/8" type 'x' gypsum board
- 5/8" type 'x' gypsum board

Other mitigation strategies may be acceptable with approval by Veneklasen.

Veneklasen's calculations included the roof path, but this was insignificant in the interior noise level calculated.

Veneklasen utilized the glazing ratings (glass, frame and seals) shown in Appendix I. Appendix I shall be the acoustical specification for the exterior windows and doors.

4.2 Recommended Mitigation

Veneklasen investigated barrier option to minimize the noise impact due to the train locomotive noise level inside the residential spaces. However, it required a barrier height of 15 feet at the property line. We understand there are challenges with regards to footings at this location with a barrier of this height. Inform us if a barrier solution would like to be pursued further.

As an alternative solution, Veneklasen performed calculations with an upgraded wall assembly as mentioned in the section 4.1 and high STC-rated glazing. Table 3 below shows the interior noise levels with upgraded glazing and exterior wall construction.

Table 3 - Calculated Interior Maximum Noise Levels

Location	Floor	Exterior Sound Level		Glazing Rating LR/BR*	Upgraded Exterior Wall?	Interior Sound Level		Meet the City Criteria	
		LDN	Event Level, dBA			LDN	Event Level, dBA LR/BR*	LDN	Event Level LR/BR
Zone A	All	69-70	72-74	STC 35/STC 35	No	< 45	55/50	Yes	Yes/Yes
Zone B	All	65-67	94	STC 42/STC 50	Yes	< 45	55/50	Yes	Yes/Yes
Zone C	All	60-65	70-72	STC 30/STC 30	No	< 45	55/50	Yes	Yes/Yes
Remaining Zones	All	60-67	<70	STC 30/STC 30	No	< 45	< 55/<50	Yes	Yes/Yes

* LR/BR means Living Room/Bedroom

4.3 Interior Train Pass-by Event Noise Level (dBA) – Residential

In a similar manner, Veneklasen calculated the interior noise levels as a result of the train pass-by's and traffic events. As described in Section 2.2, the event noise level criterion is 50 or 55 dBA for bedroom and living rooms, respectively.

Per the analyses of 40 hours continuous measurement data at the L-1 location, it was observed that there were nine (9) train events during the daytime (7:00 am to 10:00 pm) and five (5) events during the nighttime (11:00 pm to 7:00 am).

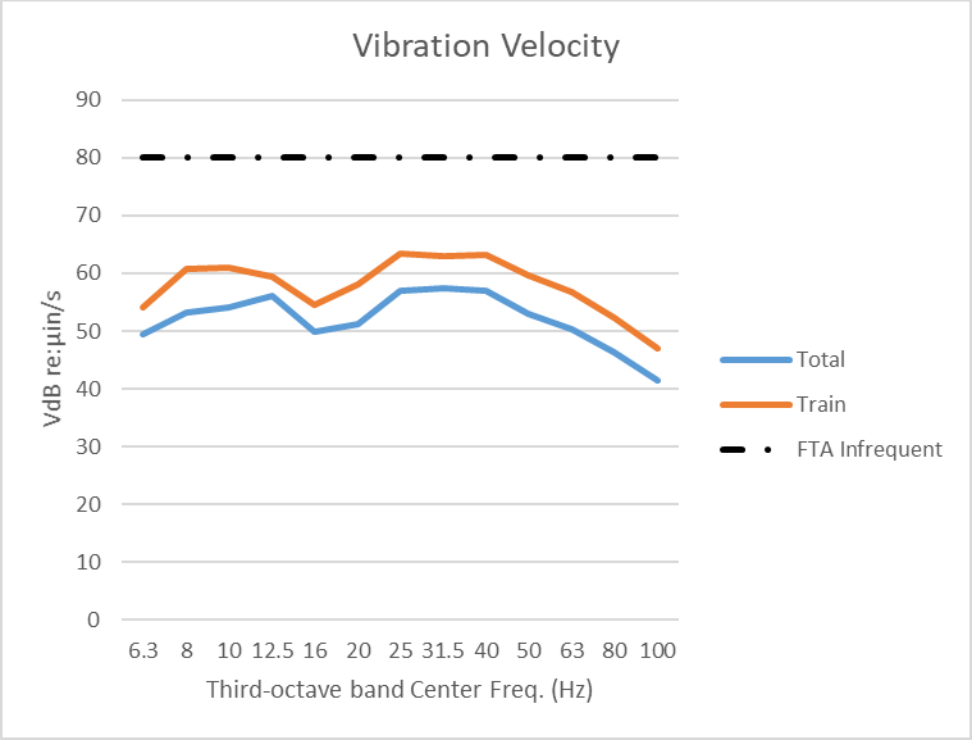
Our analysis indicates that the maximum event level was 90-94 dBA due to the train pass by's on Union Pacific Railroad. Per the analysis, significant upgrades to the exterior façade construction (i.e. double stud walls, double windows) are necessary required to meet 55 dBA interior event maximums. These recommendations are reflected above.

5.0 INTERIOR VIBRATION LEVELS (VDB)

Veneklasen evaluated the vibration levels due to the train passing by at location L1 approximately 60 feet from the Union Pacific Railroad on November 8, 2021. The vibration measurement was conducted for a period of 42-hours. The vibration levels were measured in the vertical direction.

Per Section 2.3, the railroad-induced vibration levels would be below the 80 VdB guideline for acceptability. According to the VA analysis, the measured vibration levels, the infrequent events (defined as fewer than 30 per day) in residences do not exceed 80 VdB. Figure 3 below show the reported vibration level and FWA criteria for infrequent events.

Figure 3 – Ground Vibration VdB Levels on the Project Site



It should be noted that compliance with the FTA guidelines does not indicate that vibration will not be perceptible. Events that occur at that vibration threshold would be noticeable and may cause secondary events such as the rattling of objects.

There are no regulatory requirements related to vibration from the train line; therefore, there are no mitigation requirements for this project. However, the levels are below the Infrequent Events criterion of 80 VdB as established by FTA guidelines.

6.0 MECHANICAL VENTILATION – RESIDENTIAL

Because the windows and doors must be kept closed to meet the noise requirements, mechanical or other means of ventilation may be required for the units in Zone A, B and C. The ventilation system shall not compromise the sound insulation capability of the exterior facade assembly.

7.0 SUMMARY

Veneklasen has assessed the exterior noise environment based on the updated plans and current project drawings. Veneklasen's conclusions are summarized below.

- All buildings comply with the residential building criteria of and exterior 70 LDN level for railroad sources.
- Provide window assemblies with minimum ratings as indicated in Table 3. Refer to Appendix I for the glazing acoustical ratings (glass, frame and seals). This is the specification of the windows and doors for the project and includes the required specified acoustical STC and Transmission Loss specified for all exterior windows and doors.
- Provide upgraded walls as indicated in Table 3 and described in section 4.1. Note that this construction is required to meet the maximum interior level due to events indicated.
- The vibration levels inside of the residential buildings are predicted to be less than the 80 VdB threshold recommended by FTA based on the number of events. There are no regulatory requirements, and therefore no mitigation is required.
- Residential mechanical ventilation, or other means of natural ventilation, may be required for all units in Zones A, B, and C.
- A disclosure of the noise levels as caused by train pass-by events for all potential occupants should be adopted, most notably for those located in Zone B. Note that interior noise levels from train events will stop activity within the unit and will cause sleep disturbance.

If you have any questions or comments regarding this report, please do not hesitate to contact us.

Sincerely,
Veneklasen Associates, Inc.



John LoVerde, *FASA*
Principal

APPENDIX I – GLAZING REQUIREMENTS

In order to meet the predicted interior noise levels described in Section 4.0, the glazing shall meet the following requirements:

Table 4 – Acoustical Glazing Requirements: Minimum Octave Band Transmission Loss and STC Rating

Nominal Thickness	Minimum Transmission Loss Octave Band Center Frequency (Hz)						Min. STC Rating
	125	250	500	1000	2000	4000	
1” dual	21	19	28	34	37	33	**30**
1” dual	25	27	33	35	38	41	**35**
Storm	27	32	37	43	49	51	**42**
Storm	35	39	45	51	54	60	**50**

The transmission loss values in the table above can likely be met with the following glazing assemblies:

1. STC 30: 1/8” monolithic – 3/4” airspace – 1/8” monolithic
2. STC 35: 1/4" laminated – 1/2” airspace – 1/4” laminated
3. STC 42: 3/16” monolithic – 7/16” airspace – 1/8” monolithic – 2” airspace – 1/8” storm
4. STC 50: 7/32” laminated – 1/4” airspace – 7/32” laminated – 2” airspace – 3/16” storm

An assembly’s frame and seals may limit the performance of the overall system. The window systems selected for the project shall not be selected on the basis of STC rating alone but must meet the system STC rating provided in Table 4 above. Additionally, the assemblies given above are provided as a basis of design, but regardless of construction, the octave band Transmission Loss (TL) of the particular system selected must meet the minimum values in Table 4 above. Therefore, systems selected must meet the minimum Transmission Loss values and STC ratings provided in Table 4.

Independent laboratory acoustical test reports should be provided for review by the design team to ensure compliance with glazing acoustical performance requirements. Lab shall be a current member of the National Voluntary Laboratory Accreditation Program (NVLAP) under the National Institute for Standards and Technology (NIST) for accreditation and shall be pre-approved by Veneklasen Associates, Inc. Tests are required to be completed in North America. Lab reports shall be in compliance with ASTM standard E90 and be no more than 10 years old (from date of submission on specific project). VA requires invitation to witness acoustical testing completed to demonstrate compliance with the requirements of this report and reserves the right to exclude test reports from laboratories that are not pre-approved by Veneklasen Associates, Inc. for the specific test standard. The tests shall be performed on the entire assembly, including frame and seals and hardware, if applicable to be used for the project. If test reports are not available for the assembly, VA would require that the assembly be tested at a third-party independent lab accredited through NVLAP for the ASTM E90.

Veneklasen has adopted these standards as a result of variation between laboratory testing agencies. Adoption of this process improves consistency and minimizes risk to a project developer, design/construction team, glazing manufacturers, the City, and future project residents.

APPENDIX II – SAMPLE EXTERIOR TO INTERIOR CALCULATION

Project Name:	**Morgan Hill 8**												
Zone	A												
Plan, room	BR (c) 3FL												
				Room absorption	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	
Receiving Room Absorption				Medium	0.18	0.19	0.19	0.20	0.20	0.20	0.20	0.20	
Length	12												
Width	10			**Room Absorption**	114	121	121	127	127	127	127	127	
Height	9												
				Exterior Noise Level									
Volume	1080		Level	Source type	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**dBA**
F/C area	120	**CNEL, LDN, or average:**	70	Monterey RD	76.9	74.6	63.8	63.7	66.9	62.8	53.2	44.3	**70.0**
Wall area	396												
Total area	636		Level	Source type	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**dBA**
		Event:	80	Train passby max	82.9	80.9	75.2	78.8	73.5	73.0	66.7	58.3	**80.0**
Total Interior Level:	**42.3**												
(excluding 63 Hz):	40.5												
Event Level:	**50.5**												
					Average Interior Levels								
		Exterior Assemblies	Area	Assembly Type	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**dBA**
		wall	156	VA Typical Wall (stucco,ply,2x4ws,5/8gyp) wyle	62.8	51.3	33.1	24.7	20.1	11.2	-0.5	-9.8	**39.2**
		glazing	42	STC 35, Milgard 1/4lam, 1/2, 1/4lam	56.5	51.0	38.2	31.9	33.1	26.0	13.4	4.5	**39.3**
		door		<N/A>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
				<N/A>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
				<N/A>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
				Total	**63.7**	**54.2**	**39.4**	**32.7**	**33.3**	**26.1**	**13.6**	**4.7**	**42.3**
				A-weighted	37.7	38.2	30.4	29.7	33.3	27.1	14.6	3.7	

Appendix H

Trip Generation and Operations Analysis/VMT Assessment

Appendix H

Trip Generation and Operations Analysis/VMT Assessment

Hexagon Transportation Consultants, Inc.

Memorandum

Date: July 1, 2022

To: Nick Pappani, Raney Planning & Management

From: Robert Del Rio, T.E., Luis Descanzo

Subject: Trip Generation and Operations Analysis for the Proposed The Gates Mixed-Use Development in Morgan Hill, California

Hexagon Transportation Consultants, Inc. has completed a trip generation and operations analysis for the proposed The Gates Mixed-Use Development project located at 18545-18565 Monterey Road (APNs 764-10-013, -015) in Morgan Hill, California (see Figure 1). The project as proposed would consist of 49 townhome units and 4,016 square feet (s.f.) of ground-floor retail space on a vacant lot located along the westside of Monterey Road just north of Jarvis Drive. Approximately 15% of the units will be affordable residential units. Vehicular access would be provided via a proposed right-in/right-out access driveway on southbound Monterey Road. An internal drive aisle would connect to the adjacent commercial uses located north of the project site and would provide access to the signalized Monterey Road and Cochrane Road intersection.

The methodology, results, and recommendations of the analysis are discussed below.

Scope of Study

The current General Plan, *Morgan Hill 2035 General Plan,* adopted in July 2016 uses Level of Service (LOS) as its primary metric for the evaluation of the projected operation of the City's roadway system. Therefore, this traffic operations analysis which includes a peak hour intersection level of service analysis is included for consistency with the General Plan goals and policies. The traffic operations analysis supplements the California Environmental Quality Act (CEQA) required VMT analysis provided in a separate memorandum. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

The purposes of the trip generation and operations analysis is to evaluate the magnitude of traffic that would be added to the roadway system due to the proposed project and to determine whether a comprehensive traffic study is required for the proposed project. The analysis consists of an estimation of project trip generation and evaluation peak-hour intersection level of service analysis at intersections in the immediate vicinity of the project site. A review of the project's site access per the proposed site plan also is included. Traffic conditions were evaluated for the scenarios listed below.

Existing Conditions. Existing conditions represent the existing peak-hour traffic volumes on the existing roadway network. It is not possible to collect new traffic counts due to the current COVID-19 pandemic and its effects on normal traffic conditions. Therefore, existing traffic volumes were represented by traffic counts collected in May 2018.

Figure 1
Site Location

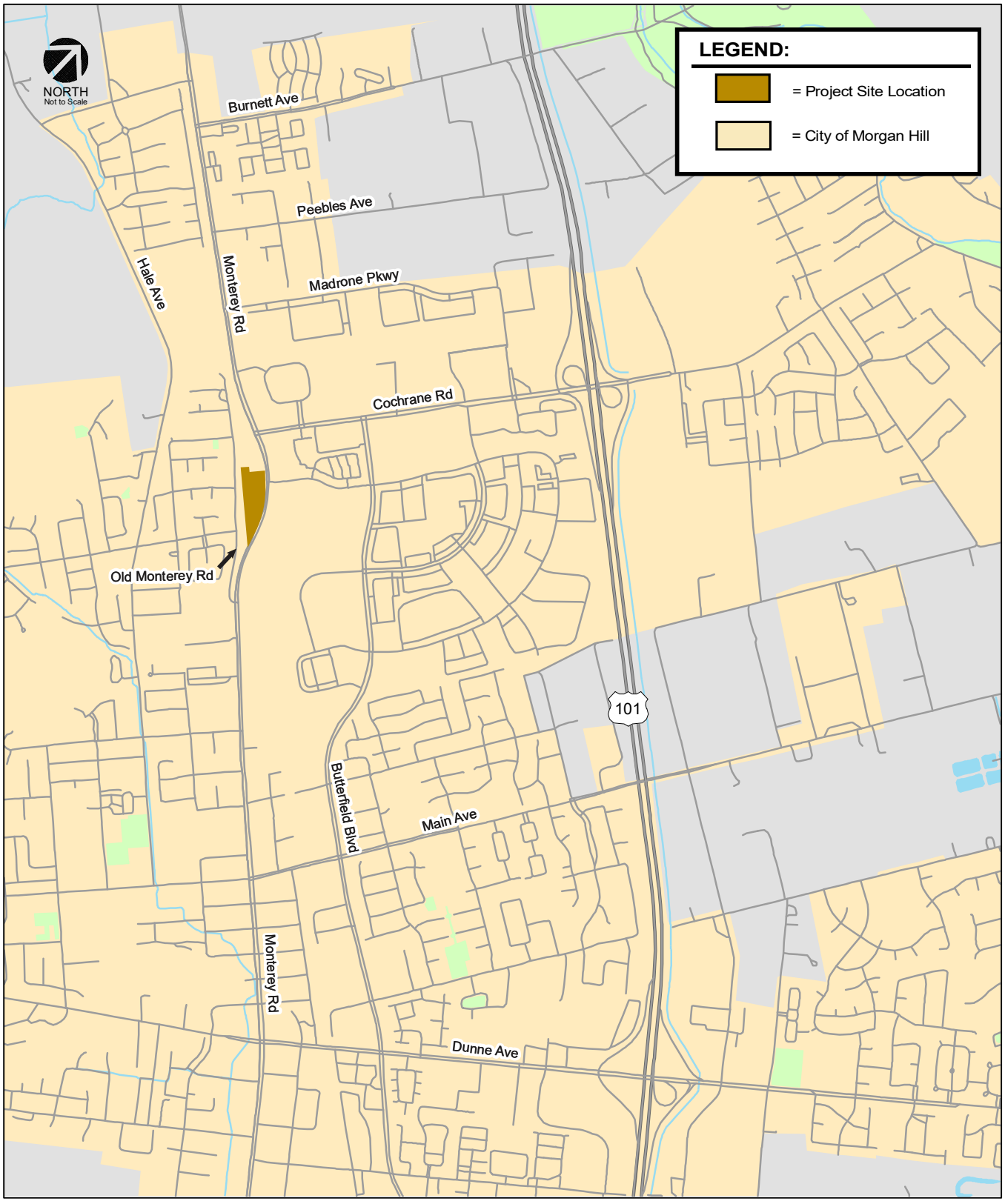
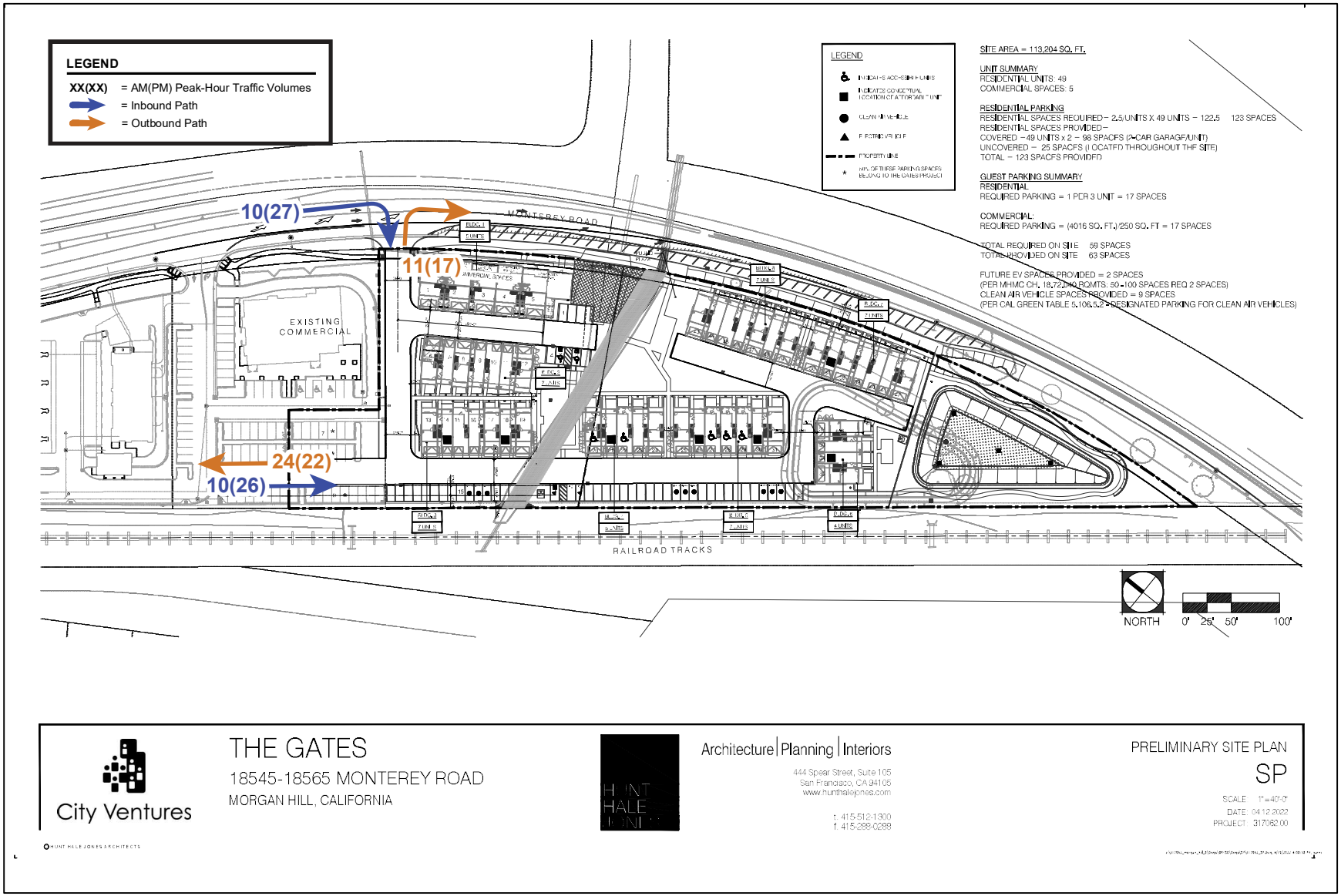


Figure 2
Site Plan and Gross Project Trips at Site Access Points



Existing Plus Project Conditions. Existing plus project peak-hour traffic volumes were estimated by adding to the existing traffic volumes the additional traffic that would be generated by the proposed project. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects of the proposed project on existing traffic conditions.

Year 2035 General Plan Conditions. Year 2035 General Plan conditions represent future traffic volumes on the future transportation network. Year 2035 General Plan conditions include traffic growth projected to occur in the Year 2035 without the proposed project.

Year 2035 General Plan with Project Conditions. Year 2035 General Plan with Project conditions consists of Year 2035 General Plan traffic conditions with the addition of project traffic.

Project Trip Generation Estimates and Assignment

In determining the project trip generation, the magnitude of traffic entering and existing the site is estimated for the AM and PM peak hours. Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. The research is compiled in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition (2021)*. The standard trip generation rates can be applied to help predict the future traffic increases that would result from a new development. As proposed, the residential component of the development would consist of 49 attached single-family residential units. The ITE trip generation manual does not provide trip rates specifically for attached single-family units. Therefore, the rates for "Single-Family Detached Housing" (ITE Land Use 210) were used to estimate the residential trips generated by the proposed project. It is expected that the trip-making characteristics of the proposed attached single-family units would be similar to those of detached single-family units since each of the proposed units will include a private two-car garage and the limited availability of transit services in the project area.

As proposed, the commercial component of the development would consist of 4,016 s.f. of ground-floor retail space. Rates for "Strip Retail Plaza (<40k)" (ITE Land Use 822) were used to estimate the trips generated by the proposed retail space. Trip generation for retail uses are typically adjusted to account for pass-by-trips. Pass-by-trips are trips that would already be on the adjacent roadways (and are therefore already counted in the existing traffic) but would turn into the site while passing by. Justification for applying the pass-by-trip reduction is founded on the observation that a portion of retail traffic is not actually generated by the retail use but is already part of the ambient traffic levels. Pass-by-trips are therefore excluded from the traffic projections (although pass-by traffic is accounted for at the site entrances). A typical pass-by trip reduction of 20% was applied to the PM peak-hour trip estimates of the proposed retail/commercial component.

After applying the ITE trip rates and reductions for pass-by-trips, it is estimated that the project would generate 55 net new vehicle trips (20 inbound and 35 outbound) during the AM peak hour and 84 net new vehicle trips (49 inbound and 35 outbound) during the PM peak hour (see Table 1). At the proposed site access points, a total of 55 gross vehicle trips (20 inbound and 35 outbound) are expected during the AM peak hour and 92 gross vehicle trips (53 inbound and 39 outbound) are expected during the PM peak hour.

The directional distribution of site-generated traffic to and from the project site was estimated based on the existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM peak commute patterns, the location of the project driveways, freeway access points, and the locations of complimentary land uses. The peak-hour project trips associated with the proposed project were added to the transportation network in accordance with the distribution pattern. The project trip distribution pattern and assignment of project trips at the study intersections under existing plus project conditions are shown on Figure 3.

Table 1
Trip Generation Summary

Land Use	Size	AM Peak Hour Rate	AM Peak Hour Trip In	AM Peak Hour Trip Out	AM Peak Hour Trip Total	PM Peak Hour Rate	PM Peak Hour Trip In	PM Peak Hour Trip Out	PM Peak Hour Trip Total
Proposed Land Uses									
#210 - Single-Family Detached Housing	**49** Dwelling Units	0.79	10	29	39	1.04	32	19	51
#822 - Strip Retail Plaza (<40k)	**4,016** Square Feet	3.92	10	6	16	10.14	21	20	41
20% Passby Reduction[1]			0	0	0		-4	-4	-8
Net Project Trips			**20**	**35**	**55**		**49**	**35**	**84**
Gross Project Trips (Trips at Driveways)			*20*	*35*	*55*		*53*	*39*	*92*

Source: ITE Trip Generation Manual, 11th Edition 2021.
[1]A 20% pass-by reduction is typically applied for retail development within the City of Morgan Hill.

Year 2035 General Plan Conditions Project Trip Generation Estimates

It should be noted that the Mixed-use Flex land use designation (7-24 du/ac) is currently assigned to the 3.82-acre project site per the City's General Plan Land Use Map. Per the land use designation and maximum allowable development standards, the project site may support up to 91 dwelling units per the General Plan. However, analysis under cumulative conditions is based on the General Plan traffic model which assumes no new development on the project site.

Intersection Level of Service Analysis

Traffic conditions at the following study intersections were analyzed for the weekday AM and PM peak hours of traffic:

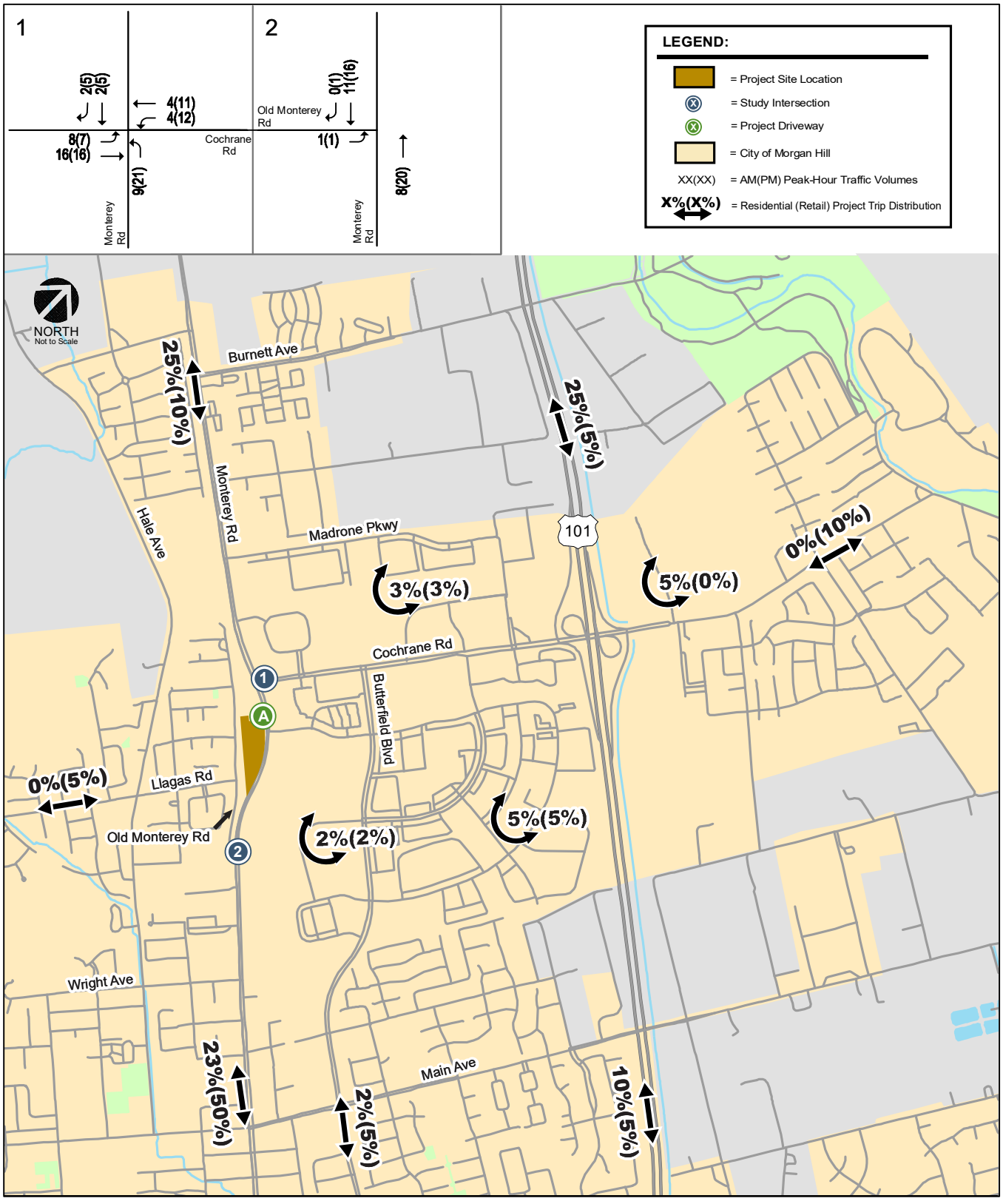
1. Monterey Road and Cochrane Road
2. Monterey Road and Old Monterey Road

Other intersections in the project area were not studied because the addition of project trips will be minimal, less than 10 peak hour trips per lane. The weekday AM peak hour of traffic generally falls within the 7:00 AM to 9:00 AM period and the weekday PM peak hour is typically in the 4:00 PM to 6:00 PM period. It is during these times that the most congested traffic conditions occur on a typical weekday.

Signalized Intersection Analysis

Signalized study intersections are subject to the City of Morgan Hill's level of service standards. The City of Morgan Hill's level of service methodology is TRAFFIX, which is based on the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersections operations based on average delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, the City of Morgan Hill methodology employs the CMP defaults values for the analysis parameters, which include adjusted saturation flow rates to reflect conditions in Santa Clara County. All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, with the exception of the following:

Figure 3
Project Trip Distribution and Project Trip Assignment



- **LOS F** for Downtown intersections and segments including at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Street;
- **LOS E** for the following intersections and freeway zones:
  - Main Avenue and Del Monte Avenue
  - Main Avenue and Depot Street
  - Dunne Avenue and Del Monte Avenue
  - Dunne Avenue and Monterey Avenue
  - Dunne Avenue and Church Street
  - Dunne Avenue and Depot Street
  - Cochrane Road and Monterey Road
  - Tennant Avenue and Monterey Road
  - Tennant Avenue and Butterfield Boulevard
  - Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane Road/DePaul Drive
  - Dunne Avenue Freeway Zone: from Walnut Grove Drive/East Dunne Avenue to Condit Road/East Dunne Avenue
  - Tennant Avenue Freeway Zone: from Butterfield Boulevard/Tennant Avenue to Condit Road/Tennant Avenue

According to the City of Morgan Hill level of service guidelines, a development is said to create a significant adverse effect on traffic conditions at a signalized intersection if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or LOS E as identified above) under no project conditions to an unacceptable level (LOS E or F) under project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F as identified above) under no project conditions and the addition of project trips causes the average critical delay to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by 0.01.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

Level of Service Results

The results of the intersection level of service analysis show that both signalized study intersections currently operate at an acceptable LOS D or better conditions under existing conditions, and the addition of project traffic would not result in the degradation of the study intersections' levels of service during the AM and PM peak hours.

Under Year 2035 General Plan conditions, the intersection of Monterey Road and Cochrane Road would operate at an unacceptable LOS F during the AM peak-hour. However, the addition of project traffic would not result in the degradation of the level of service during the AM and PM peak hours. The intersection of Monterey Road and Old Monterey Road would continue to operate at an acceptable LOS B.

Based on the results of the intersection level of service analysis, the project would not have an adverse effect on operations at the study intersections. The results of level of service analysis are summarized in Table 2.

Table 2
Intersection Level of Service Summary

Int. #	Intersection	LOS Std	Peak Hour	Count Date	Existing		Existing Plus Project				Year 2035 General Plan		Year 2035 General Plan with Project			
					Delay[1]	LOS	Delay[1]	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Delay[1]	LOS	Delay[1]	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Monterey Road and Cochrane Road	E	AM	05/08/18	37.3	D	37.6	D	0.5	0.005	**93.7**	**F**	**93.7**	**F**	**0.6**	**0.005**
			PM	05/08/18	26.3	C	26.7	C	1.5	0.046	60.5	E	60.2	E	-0.1	0.005
2	Monterey Road and Old Monterey Road	D	AM	05/08/18	10.5	B	10.4	B	-0.1	0.004	10.1	B	10.1	B	0.0	0.003
			PM	05/08/18	13.2	B	13.1	B	-0.1	0.005	16.2	B	16.1	B	0.0	0.005

Notes:
[1]The reported delay and corresponding level of service for signalized intersections represent the average delay for all approaches at the intersection.

Site Access

The evaluation of site access is based on the site plan prepared by MH Engineering Company dated April 5, 2022. Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, geometric design, and sight distance. Site access was evaluated in accordance with generally accepted traffic engineering standards and transportation planning principles.

As shown on Figure 2, vehicular access to the project site would be provided via a right-in and right-out access driveway on southbound Monterey Road. The driveway would be located approximately 450 feet south of Cochrane Road. An existing landscaped median along Monterey Road that runs between Cochrane Road and Jarvis Drive would prohibit inbound and outbound left-turns to and from the project driveway.

An internal drive aisle also would provide a connection through the adjacent commercial uses located north of the project site and access to the signalized Monterey Road/Cochrane Road intersection. The commercial plaza is currently accessible via the west leg of the Monterey Road/Cochrane Road intersection and a right-in and right-out access driveway along Monterey Road, approximately 200 feet south of Cochrane Road. The Monterey Road/Cochrane Road intersection will provide access to northbound Monterey Road and Cochrane Road from the project site.

Driveway Operations and Design

Based on the project trip generation and trip assignment, a total of 55 gross vehicle trips (20 inbound and 35 outbound) are expected during the AM peak hour and 92 gross vehicle trips (53 inbound and 39 outbound) are expected during the PM peak hour. Figure 2 shows the estimated project trips at the project driveways and the internal connecting drive aisle. Due to limited access operations at the Monterey Road driveway, significant vehicle delay and queuing are not expected to occur at the project site driveway.

Currently, southbound Monterey Road narrows from two travel lanes to one travel lane just north of the project frontage. The outer travel lane transitions into a merging lane starting approximately 150 feet north of the proposed project driveway and merges into a single lane at the location of the proposed driveway. The project proposes to extend the outer travel lane so that it transitions into a 250-foot merging lane starting just south of the project driveway. Therefore, the proposed lane configuration would provide outbound project traffic an opportunity to first turn right onto the outer travel lane, before merging into a single lane south of the driveway.

It should be noted that the proposed new project driveway along Monterey Road would be located 150 feet south of an existing driveway. The City Street Design Standards require a minimum of 26 feet of separation between two driveway transitions. However, the City Design Standards do not provide specific requirements for driveway spacing based on the characteristics of adjacent roadways. The proposed project driveway will be located along a major arterial roadway. The City standards do require a minimum of 100 feet between a driveway approach and the nearest intersecting street along arterial roadways. The intent of the driveway spacing near intersection is to minimize turn movement conflicts to and from driveways with those through adjacent intersections. When considering the City's required driveway spacing requirements for adjacent driveways and near intersections, the 150 feet of separation between the project and existing driveway to the north should be adequate.

The City's Design Standards specify a minimum driveway width of 16 feet for residential uses and a maximum driveway width of 36 feet for commercial uses. The site plan indicates that the project driveway would be 26 feet wide. Therefore, the width of the proposed Monterey Road driveway would meet City standards.

Sight Distance

The project driveway should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other vehicles traveling on Monterey Road. Landscaping and signage should be located in such a way to ensure an unobstructed view for drivers existing the site. Sight distance generally should be provided in accordance with Caltrans standards. The minimum acceptable sight distance is most often the stopping sight distance.

Monterey Road has a posted speed limit of 35 mph. For a design speed of 35 mph, the recommended Caltrans stopping sight distance is 250 feet. Based on the project site plan and observations in the field, vehicles exiting the project site driveway would have sight distance of more than 250 feet to the north along southbound Monterey Road.

Emergency and Truck Vehicle Access

The proposed site access points along Monterey Road and via the internal drive aisle would allow access to firetrucks and garbage collection trucks. Truck turning templates are shown on Figures 4 and 5.

Parking

Vehicular Parking

According to the City of Morgan Hill Zoning Regulations (Table 18.72-2), multi-family residential developments are required to provide on-site vehicular parking as specified below:

- Studio or One-Bedroom - 1 covered and 0.5 uncovered per unit
- Two Bedroom - 1 covered and 1 uncovered per unit
- Three Bedroom - 1 covered and 1.5 uncovered per units
- Guest parking - 1 space per 3 units

The project proposes a total of 49 three-bedroom units. Therefore, the residential component of the project would require a total of 140 vehicular parking spaces consisting of 123 parking spaces for residents (49 covered spaces and 74 uncovered spaces) and 17 guest spaces. Per the site plan, the project proposes to provide a total of 141 parking spaces consisting of 123 parking spaces for residents (98 covered spaces and 25 uncovered spaces) and 18 guest spaces. Therefore, residential vehicle parking as proposed by the project will meet City vehicle parking requirements.

The commercial component would be required to provide parking at a rate of 1 parking space per 250 square feet of floor area. The proposed 4,016 s.f. of commercial space would require a total of 17 parking spaces. Per the site plan, the project proposes to provide 8 new on-site parking spaces for the commercial use and an additional 12 existing parking spaces would be shared with the adjacent commercial plaza. Therefore, commercial vehicle parking as proposed by the project will meet City vehicle parking requirements. An agreement for the shared use of parking spaces should be provided to the City.

Figure 4
Fire Truck Turning Template

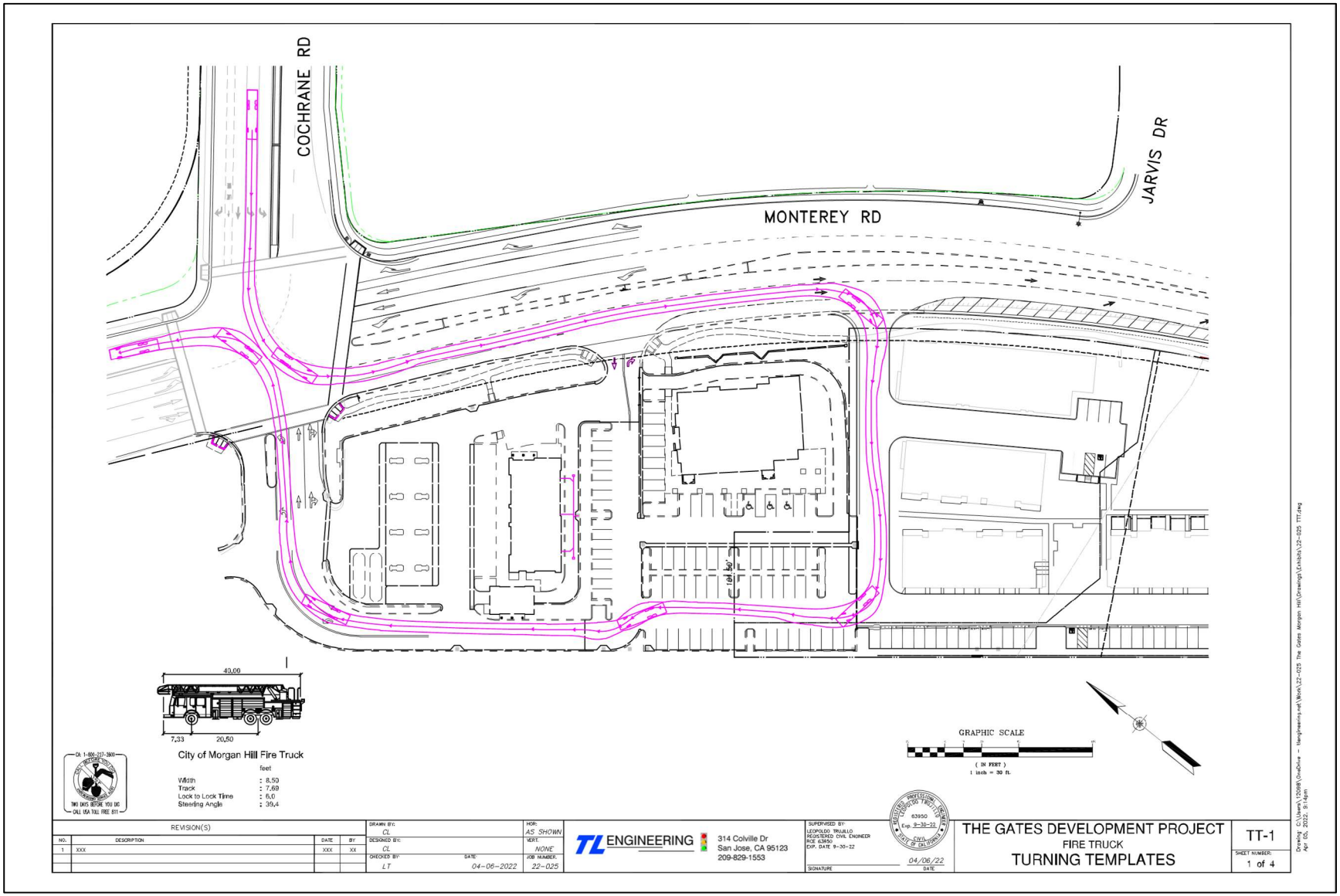


Figure 5 (continued)
Fire Truck Turning Template

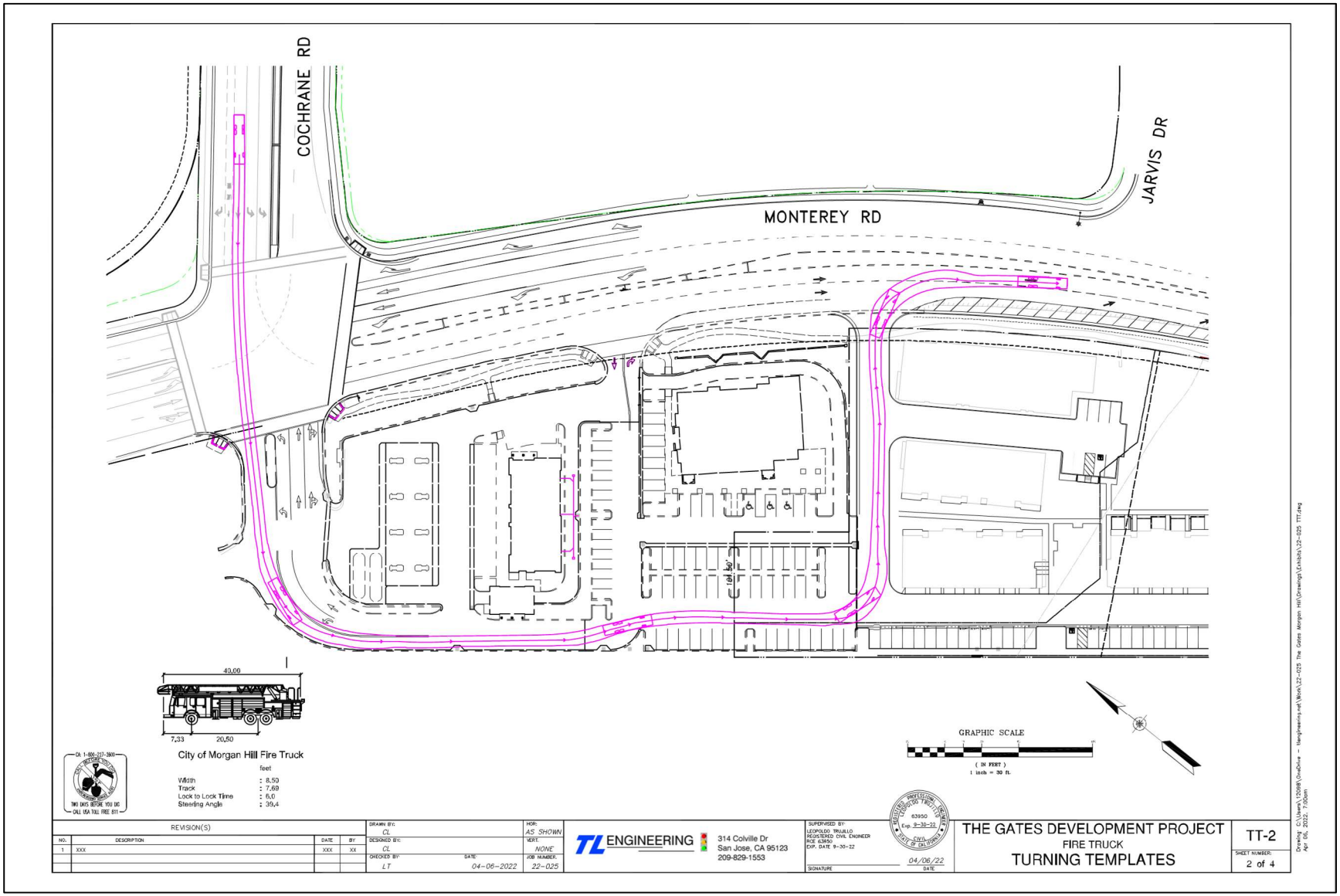


Figure 6
Garbage Truck Turning Template

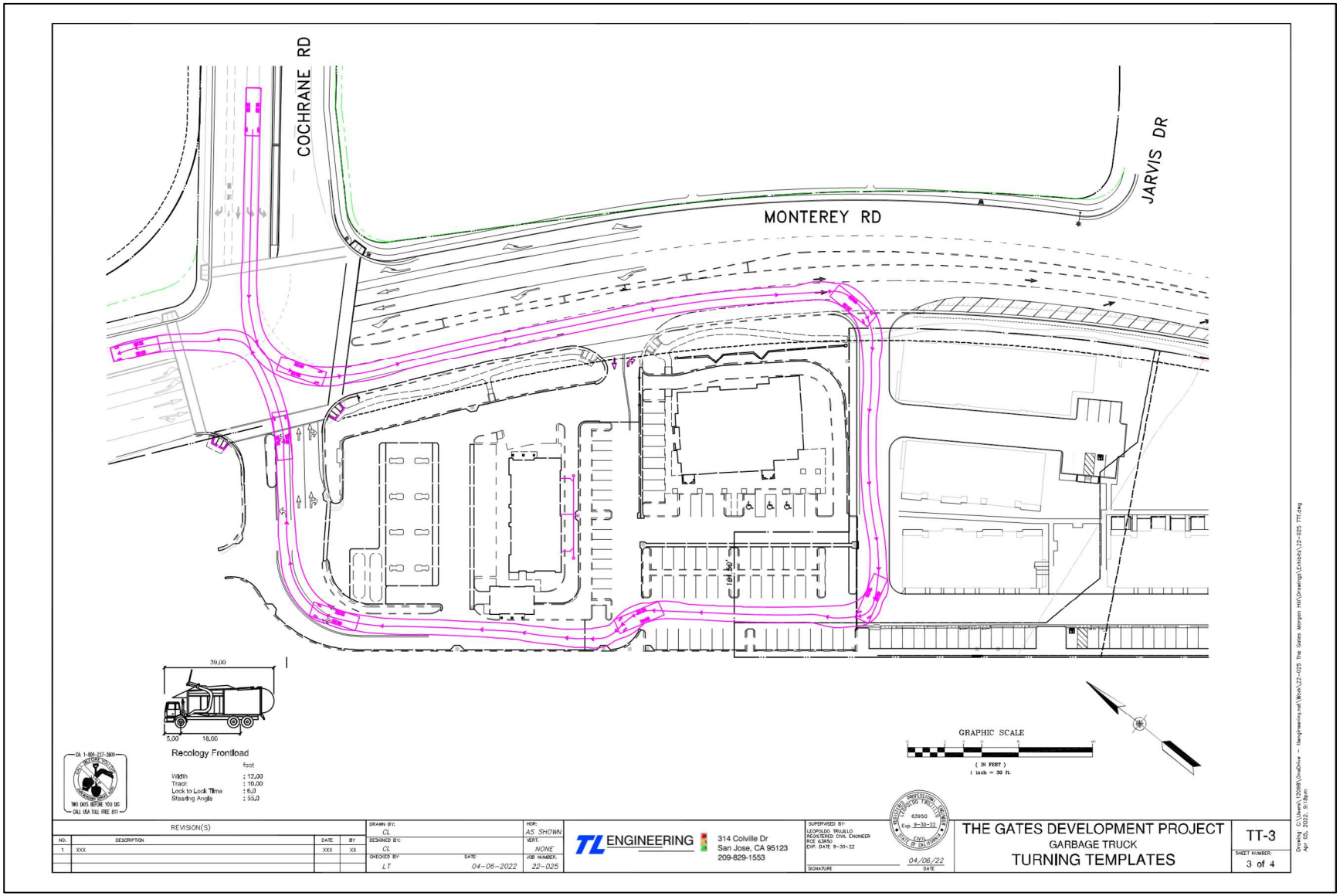
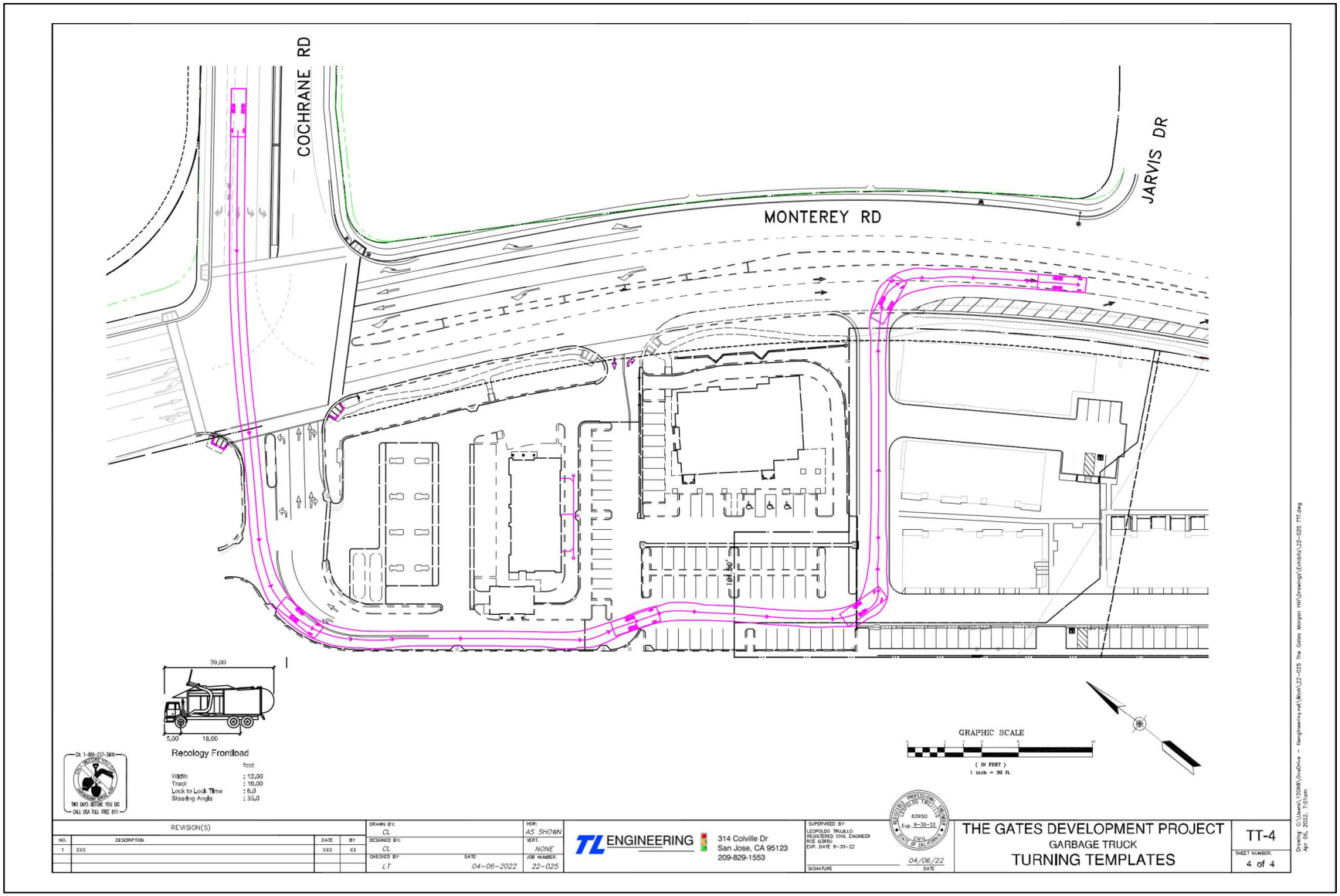


Figure 7 (continued)
Garbage Truck Turning Template



Bicycle Parking

According to the City of Morgan Hill Zoning Regulations (Table 18.72-7), multi-family residential developments are required to provide on-site bicycle parking as specified below:

- Short-term spaces – 10% of required automobile spaces; minimum of 4 spaces
- Long-term spaces – 1 per 5 units

Commercial uses are required to provide on-site bicycle parking as specified below:

- Short-term spaces – 10% of required automobile spaces
- Long-term spaces – 1 per 20 required automobile spaces for uses 10,000 sq. ft. or greater

Based on these requirements, the project will be required to provide a total of 23 bicycle parking spaces for the residential use (13 short-term spaces and 10 long-term spaces) and 2 short-term spaces for the commercial use.

The site plan does not indicate the number and location of proposed bicycle parking. The project should provide bicycle parking that meets City bicycle parking requirements.

Transit, Pedestrian, and Bicycle Facility Evaluation

Transit Facilities

The project site is served by VTA bus routes that run along Monterey Road, Cochrane Road and Hale Avenue.

- Express Route 568 (Gilroy Transit Center to San Jose Diridon Transit Center) serves bus stops at the intersection of Cochrane Road and Cochrane Circle, approximately 1000 feet walking distance from the project site.
- Frequent Route 68 (Gilroy Transit Center to San Jose Diridon Transit Center) serves bus stops at the intersection of Hale Avenue and Llagas Road, approximately 0.8-mile walking distance from the project site.
- Local Route 87 (Morgan Hill Civic Center to Burnett Avenue) serves bus stops at the intersection of Cochrane Road and Cochrane Circle, approximately 1000 feet walking distance from the project site.

A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the project equates to no more than three transit riders during each of the peak hours. The transit ridership demands of the proposed project can be accommodated by the existing transit facilities.

Pedestrian Facilities

In the vicinity of the project site, there are sidewalks along the following roadway segments:

- Southbound Monterey Road, between Cochrane Road and 420 feet south of Cochrane Road (along the existing commercial plaza)
- Northbound Monterey Road, until 450 feet north of Cochrane Road
- Westbound Cochrane Road, between Cochrane Circle and Monterey Road
- Eastbound Cochrane Road, east of Monterey Road

Crosswalks with protected crossing phases are provided at the following signalized intersections:

- Monterey Road/Cochrane Road – all four legs
- Monterey Road/Old Monterey Road – south leg

Pedestrian generators in the project vicinity include commercial uses along Monterey Road (including Downtown Morgan Hill) and Cochrane Road, Ann Sobrato High School, and bus stops discussed above. Access to nearby pedestrian generators is described below:

- Downtown Morgan Hill – Continuous sidewalks provided along northbound Monterey Road between Downtown and Cochrane Road. An east-west crossing across Monterey Road is provided at Monterey Road/Cochrane Road.
- Commercial Uses along Cochrane Road – Continuous sidewalks provided along eastbound Cochrane Road, east of Monterey Road. An east-west crossing across Monterey Road is provided at Monterey Road/Cochrane Road.
- Ann Sobrato High School – No continuous pedestrian route due to missing sidewalk segments along both sides of Monterey Road between Cochrane Road and Burnett Avenue.
- Route 87 and 568 Bus Stop at Cochrane Road/Cochrane Circle – Continuous sidewalks provided along both sides of Cochrane Road between Monterey Road and Cochrane Circle. An east-west crossing across Monterey Road is provided at Monterey Road/Cochrane Road.
- Route 68 Bus Stop at Hale Avenue/Llagas Road – Continuous pedestrian route provided via sidewalks along northbound Monterey Road, southbound Old Monterey Road, and both sides of Llagas Road. Users must cross Monterey Road at Cochrane Road and again at Old Monterey Road.

The project proposes to construct an approximately 5-foot wide sidewalk along its Monterey Road frontage. Multiple access points from the sidewalks are provided to on-site walkways. Upon construction, the project sidewalks would connect to existing sidewalks to the north along the adjacent commercial plaza. However, there are no existing sidewalks located south of the project site along the westside of Monterey Road. Therefore, pedestrian travel south of the project site will require the use of the controlled-crosswalks at the Monterey Road/Cochrane Road intersection to access the sidewalks along the eastside of Monterey Road.

The construction of a sidewalk along the westside of Monterey Road south of the project site is beyond the means of the proposed project since its construction would require widening and/or reconstruction of the railroad overcrossing of Monterey Road and acquisition of right-of-way that is not controlled by the project applicant.

It should be noted that only the northeastern curb ramp at the Monterey Road/Cochrane Road intersection is ADA-compliant. The City may require that the project contribute to construction of ADA-compliant ramps at the intersection.

Bicycle Facilities

In the project vicinity, there are bike lanes located along Monterey Road (including along the project frontage) and Cochrane Road. The project is not expected to generate a significant amount of bicycle trips. The demand generated by the proposed project could be accommodated by the existing bicycle facilities in the vicinity of the project site. Additionally, the project as proposed will not conflict with any existing or planned bicycle facilities.

Traffic Study Requirements

The need for the preparation of a comprehensive traffic impact analysis for a particular development is based on its estimated trip generation and its effect on surrounding transportation facilities. The City of Morgan Hill requires the completion of a full traffic impact analysis if one of the following criteria are met:

1. Generates 100 or more net new peak hour trips; except that projects located in the 14-block Downtown Core area are exempt from this requirement. Net new peak hour trips are defined as the number of trips generated by the proposed development minus trips generated by existing development on the project site. (This threshold is consistent with the Valley Transportation Authority (VTA) policy.)

2. Adds 50 to 99 net new peak hour trips to the roadway system where nearby intersections are currently operating at or below the City's LOS standard, or projected to operate at or below the City's LOS standard with traffic added by approved developments; except that projects located in the 14-block Downtown Core area are exempt from this requirement. Adjacent or nearby intersections are defined as intersections to which the proposed development or proposed land use change adds 10 or more vehicle peak hour trips per lane.

3. Creates a transportation issue that City staff requests to have analyzed.

The proposed project will result in the addition of 55 net new AM peak-hour trips and 84 net new PM peak-hour trips to the roadway system under existing plus project conditions.

The results of the intersection level of service analysis show that the study intersections are currently operating at better than the City's LOS standard and the addition of project traffic would not result in the degradation of the study intersections' levels of service during the AM and PM peak hours.

Therefore, the evaluation of trip generation and intersection operations concludes that the proposed project will not result in an adverse effect on operations to intersections in the project area and is consistent with the *Morgan Hill 2035 General Plan* goals and policies. However, City staff ultimately determines the need for traffic studies for new developments.

The Gates Mixed-Use Development

Technical Appendices

July 1, 2022

Appendix A

Volume Summary

Intersection Number: 1
Traffix Node Number: 101
Intersection Name: Monterey Road and Cochrane Road
Peak Hour: AM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	**44**	**221**	**278**	**582**	**59**	**141**	**320**	**623**	**110**	**6**	**65**	**87**	**2,536**
Existing Conditions (with 1.5% com growth if older than 2 years)	**47**	**235**	**296**	**618**	**63**	**150**	**340**	**662**	**117**	**7**	**69**	**93**	**2,697**
Project Trips	2	2	0	0	4	4	0	0	9	0	16	8	45
Existing Plus Project	**49**	**237**	**296**	**618**	**67**	**154**	**340**	**662**	**126**	**7**	**85**	**101**	**2,742**
2015 Model	1	331	556	906	2	142	263	462	1	0	1	0	2,665
2035 without Project Model	1	430	956	1057	2	191	246	906	1	0	1	1	3,792
2035 Cumulative without Project	**47**	**334**	**696**	**769**	**63**	**199**	**340**	**1106**	**117**	**7**	**69**	**94**	**3,841**
2035 Cumulative with Project	**49**	**336**	**696**	**769**	**67**	**203**	**340**	**1106**	**126**	**7**	**85**	**102**	**3,886**

Intersection Number: 2
Traffix Node Number: 116
Intersection Name: Monterey Road and Old Monterey Road
Peak Hour: AM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	**76**	**319**	**0**	**0**	**0**	**0**	**0**	**845**	**85**	**95**	**0**	**161**	**1,581**
Existing Conditions (with 1.5% com growth if older than 2 years)	**81**	**339**	**0**	**0**	**0**	**0**	**0**	**897**	**91**	**101**	**0**	**171**	**1,680**
Project Trips	0	11	0	0	0	0	0	8	0	0	0	1	20
Existing Plus Project	**81**	**350**	**0**	**0**	**0**	**0**	**0**	**905**	**91**	**101**	**0**	**172**	**1,700**
2015 Model	45	394	0	0	0	0	0	556	18	65	0	189	1,267
2035 without Project Model	55	530	0	0	0	0	0	1006	32	93	0	273	1,989
2035 Cumulative without Project	**91**	**475**	**0**	**0**	**0**	**0**	**0**	**1347**	**105**	**129**	**0**	**255**	**2,402**
2035 Cumulative with Project	**91**	**486**	**0**	**0**	**0**	**0**	**0**	**1355**	**105**	**129**	**0**	**256**	**2,422**

Intersection Number: 3
Traffix Node Number: 901
Intersection Name: Monterey Road and Project Driveway
Peak Hour: AM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	**0**	**395**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**395**
Existing Conditions (with 1.5% com growth if older than 2 years)	**0**	**420**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**420**
Project Trips	10	0	0	0	0	0	0	0	0	11	0	0	21
Existing Plus Project	**10**	**420**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**441**
2015 Model	0	439	0	0	0	0	0	0	0	0	0	0	439
2035 without Project Model	0	585	0	0	0	0	0	0	0	0	0	0	585
2035 Cumulative without Project	**0**	**566**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**566**
2035 Cumulative with Project	**10**	**566**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**587**

Intersection Number: 1
Traffix Node Number: 101
Intersection Name: Monterey Road and Cochrane Road
Peak Hour: PM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	**111**	**783**	**1074**	**180**	**50**	**243**	**198**	**157**	**36**	**24**	**77**	**26**	**2,959**
Existing Conditions (with 1.5% com growth if older than 2 years)	**118**	**832**	**1140**	**192**	**54**	**258**	**211**	**167**	**39**	**26**	**82**	**28**	**3,147**
Project Trips	5	5	0	0	11	12	0	0	21	0	16	7	77
Existing Plus Project	**123**	**837**	**1140**	**192**	**65**	**270**	**211**	**167**	**60**	**26**	**98**	**35**	**3,224**
2015 Model	1	629	813	621	2	227	155	130	1	2	3	1	2,585
2035 without Project Model	1	849	1113	1017	2	369	206	229	1	2	3	1	3,793
2035 Cumulative without Project	**118**	**1052**	**1440**	**588**	**54**	**400**	**262**	**266**	**39**	**26**	**82**	**28**	**4,355**
2035 Cumulative with Project	**123**	**1057**	**1440**	**588**	**65**	**412**	**262**	**266**	**60**	**26**	**98**	**35**	**4,432**

Intersection Number: 2
Traffix Node Number: 116
Intersection Name: Monterey Road and Old Monterey Road
Peak Hour: PM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	**121**	**993**	**0**	**0**	**0**	**0**	**0**	**327**	**88**	**128**	**0**	**83**	**1,740**
Existing Conditions (with 1.5% com growth if older than 2 years)	**129**	**1054**	**0**	**0**	**0**	**0**	**0**	**348**	**94**	**136**	**0**	**89**	**1,850**
Project Trips	1	16	0	0	0	0	0	20	0	0	0	1	38
Existing Plus Project	**130**	**1070**	**0**	**0**	**0**	**0**	**0**	**368**	**94**	**136**	**0**	**90**	**1,888**
2015 Model	148	716	0	0	0	0	0	215	17	39	0	53	1,188
2035 without Project Model	222	1001	0	0	0	0	0	367	52	147	0	76	1,865
2035 Cumulative without Project	**203**	**1339**	**0**	**0**	**0**	**0**	**0**	**500**	**129**	**244**	**0**	**112**	**2,527**
2035 Cumulative with Project	**204**	**1355**	**0**	**0**	**0**	**0**	**0**	**520**	**129**	**244**	**0**	**113**	**2,565**

Intersection Number: 3
Traffix Node Number: 901
Intersection Name: Monterey Road and Project Driveway
Peak Hour: PM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	**0**	**1114**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,114**
Existing Conditions (with 1.5% com growth if older than 2 years)	**0**	**1183**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,183**
Project Trips	27	0	0	0	0	0	0	0	0	17	0	0	44
Existing Plus Project	**27**	**1183**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**0**	**1,227**
2015 Model	0	864	0	0	0	0	0	0	0	0	0	0	864
2035 without Project Model	0	1223	0	0	0	0	0	0	0	0	0	0	1,223
2035 Cumulative without Project	**0**	**1542**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,542**
2035 Cumulative with Project	**27**	**1542**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**0**	**1,586**

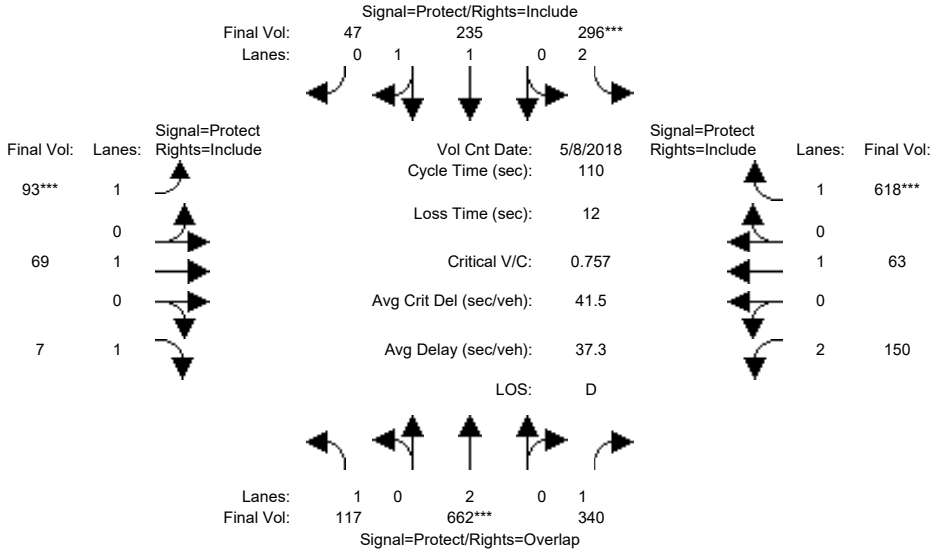
Appendix B

Level of Service Calculations

City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	117	662	340	296	235	47	93	69	7	150	63	618
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	662	340	296	235	47	93	69	7	150	63	618
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	662	340	296	235	47	93	69	7	150	63	618
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	662	340	296	235	47	93	69	7	150	63	618
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	662	340	296	235	47	93	69	7	150	63	618
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	117	662	340	296	235	47	93	69	7	150	63	618
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.66	0.34	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3083	617	1750	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.19	0.09	0.08	0.08	0.05	0.04	0.00	0.05	0.03	0.35
Crit Moves:		****		****			****					****
Green Time:	16.5	25.3	49.6	13.7	22.5	22.5	7.7	34.7	34.7	24.3	51.3	51.3
Volume/Cap:	0.45	0.76	0.43	0.76	0.37	0.37	0.76	0.12	0.01	0.22	0.07	0.76
Delay/Veh:	43.8	43.3	20.9	54.8	38.0	38.0	73.5	26.8	25.9	35.2	16.2	28.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.8	43.3	20.9	54.8	38.0	38.0	73.5	26.8	25.9	35.2	16.2	28.3
LOS by Move:	D	D	C	D	D	D	E	C	C	D	B	C
HCM2kAvgQ:	4	12	8	6	4	4	5	2	0	2	1	19

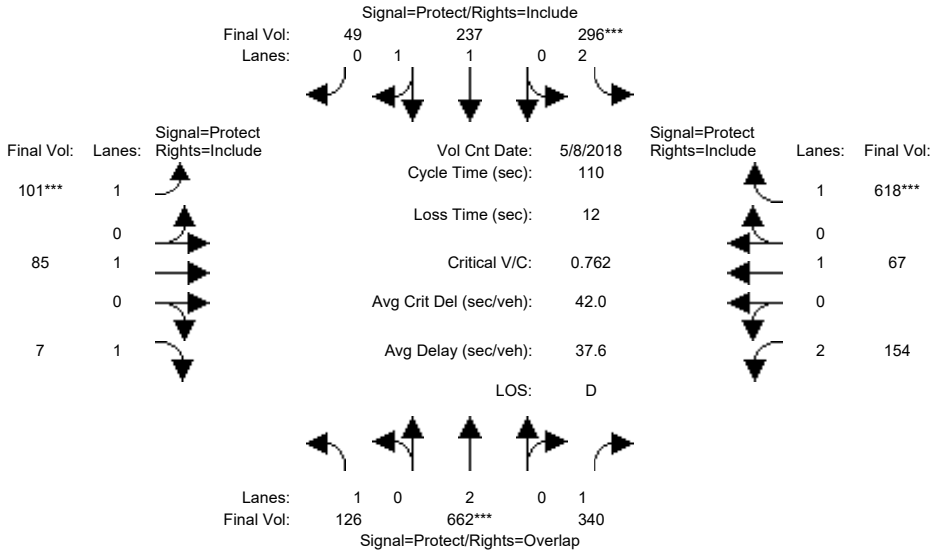
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	117	662	340	296	235	47	93	69	7	150	63	618
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	662	340	296	235	47	93	69	7	150	63	618
Added Vol:	9	0	0	0	2	2	8	16	0	4	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	126	662	340	296	237	49	101	85	7	154	67	618
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	126	662	340	296	237	49	101	85	7	154	67	618
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	126	662	340	296	237	49	101	85	7	154	67	618
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	126	662	340	296	237	49	101	85	7	154	67	618
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.65	0.35	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3066	634	1750	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.19	0.09	0.08	0.08	0.06	0.04	0.00	0.05	0.04	0.35
Crit Moves:		****		****			****					****
Green Time:	17.1	25.1	49.6	13.6	21.6	21.6	8.3	34.9	34.9	24.4	51.0	51.0
Volume/Cap:	0.46	0.76	0.43	0.76	0.39	0.39	0.76	0.14	0.01	0.22	0.08	0.76
Delay/Veh:	43.5	43.7	21.0	55.3	38.9	38.9	72.4	27.0	25.8	35.2	16.5	28.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.5	43.7	21.0	55.3	38.9	38.9	72.4	27.0	25.8	35.2	16.5	28.8
LOS by Move:	D	D	C	E	D	D	E	C	C	D	B	C
HCM2kAvgQ:	5	12	8	6	4	4	5	2	0	2	1	19

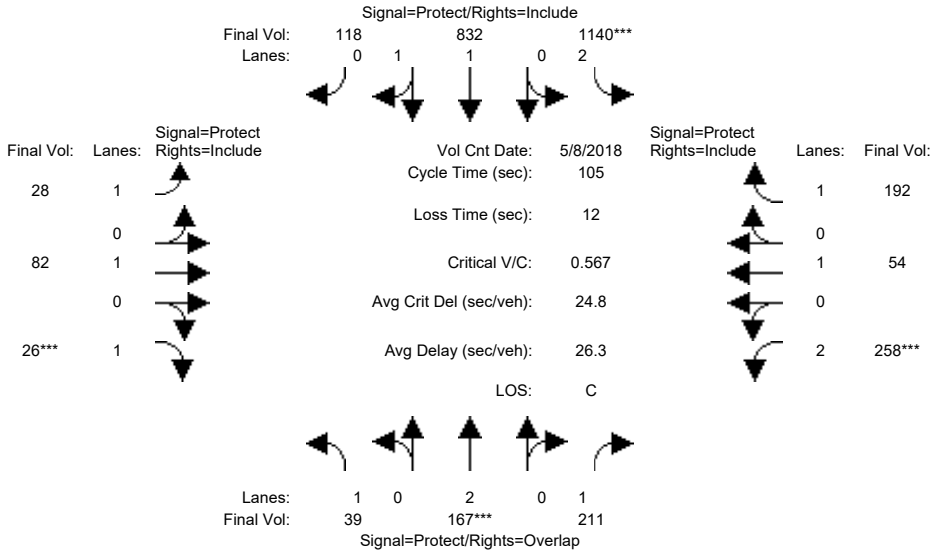
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	39	167	211	1140	832	118	28	82	26	258	54	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	167	211	1140	832	118	28	82	26	258	54	192
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	167	211	1140	832	118	28	82	26	258	54	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	167	211	1140	832	118	28	82	26	258	54	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	167	211	1140	832	118	28	82	26	258	54	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	167	211	1140	832	118	28	82	26	258	54	192
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.74	0.26	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3240	460	1750	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.12	0.36	0.26	0.26	0.02	0.04	0.01	0.08	0.03	0.11
Crit Moves:		****		****					****	****		
Green Time:	14.3	10.0	23.5	59.5	55.2	55.2	8.9	10.0	10.0	13.5	14.6	14.6
Volume/Cap:	0.16	0.46	0.54	0.64	0.49	0.49	0.19	0.45	0.16	0.64	0.20	0.79
Delay/Veh:	40.4	45.9	37.5	16.2	16.1	16.1	45.3	46.7	44.1	46.8	40.4	59.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.4	45.9	37.5	16.2	16.1	16.1	45.3	46.7	44.1	46.8	40.4	59.5
LOS by Move:	D	D	D	B	B	B	D	D	D	D	D	E
HCM2kAvgQ:	1	3	7	14	9	9	1	3	1	5	1	7

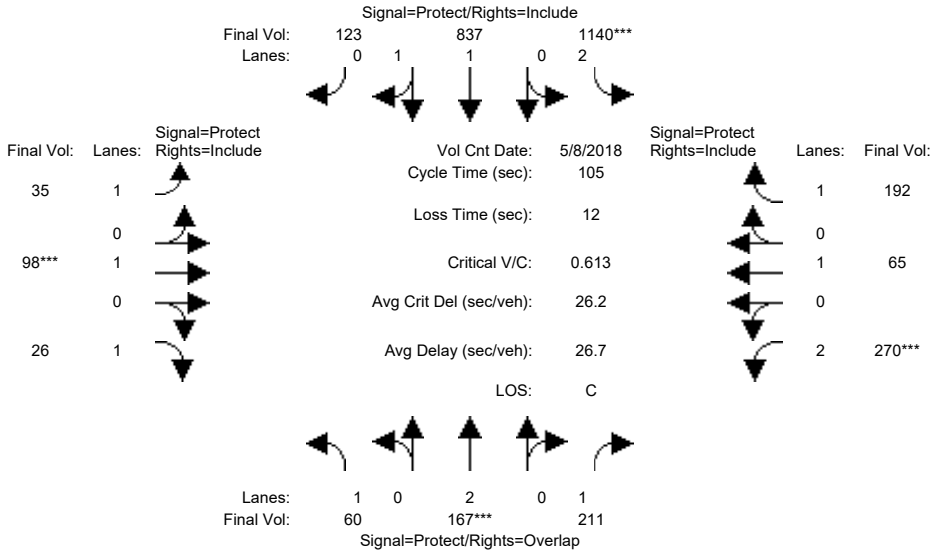
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	39	167	211	1140	832	118	28	82	26	258	54	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	167	211	1140	832	118	28	82	26	258	54	192
Added Vol:	21	0	0	0	5	5	7	16	0	12	11	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	167	211	1140	837	123	35	98	26	270	65	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	167	211	1140	837	123	35	98	26	270	65	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	167	211	1140	837	123	35	98	26	270	65	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	167	211	1140	837	123	35	98	26	270	65	192
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.74	0.26	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3226	474	1750	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.04	0.12	0.36	0.26	0.26	0.02	0.05	0.01	0.09	0.03	0.11
Crit Moves:		****		****				****		****		
Green Time:	14.1	10.0	24.0	59.0	54.9	54.9	9.1	10.0	10.0	14.0	14.9	14.9
Volume/Cap:	0.26	0.46	0.53	0.64	0.50	0.50	0.23	0.54	0.16	0.64	0.24	0.77
Delay/Veh:	41.3	45.9	36.9	16.6	16.3	16.3	45.5	48.6	44.1	46.6	40.5	57.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.3	45.9	36.9	16.6	16.3	16.3	45.5	48.6	44.1	46.6	40.5	57.3
LOS by Move:	D	D	D	B	B	B	D	D	D	D	D	E
HCM2kAvgQ:	2	3	7	14	10	10	1	4	1	5	2	7

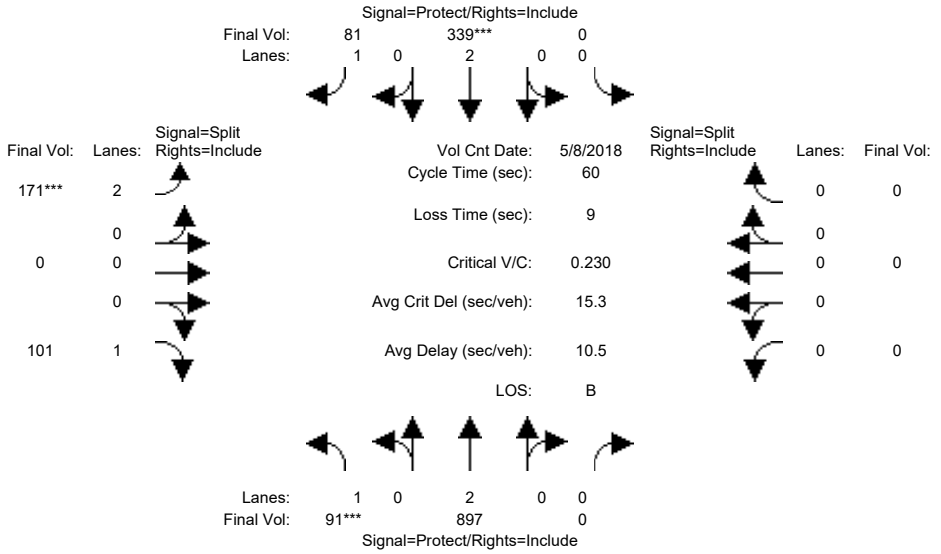
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #116: Monterey Road and Old Monterey Road



Street Name:	Monterey Road						Old Monterey Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	91	897	0	0	339	81	171	0	101	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	897	0	0	339	81	171	0	101	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	897	0	0	339	81	171	0	101	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	897	0	0	339	81	171	0	101	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	897	0	0	339	81	171	0	101	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	897	0	0	339	81	171	0	101	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.00	0.00	0.09	0.05	0.05	0.00	0.06	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	13.3	36.2	0.0	0.0	22.9	22.9	14.8	0.0	14.8	0.0	0.0	0.0
Volume/Cap:	0.23	0.39	0.00	0.00	0.23	0.12	0.22	0.00	0.23	0.00	0.00	0.00
Delay/Veh:	19.5	6.3	0.0	0.0	12.7	12.1	18.1	0.0	18.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.5	6.3	0.0	0.0	12.7	12.1	18.1	0.0	18.4	0.0	0.0	0.0
LOS by Move:	B	A	A	A	B	B	B	A	B	A	A	A
HCM2kAvgQ:	1	4	0	0	2	1	2	0	2	0	0	0

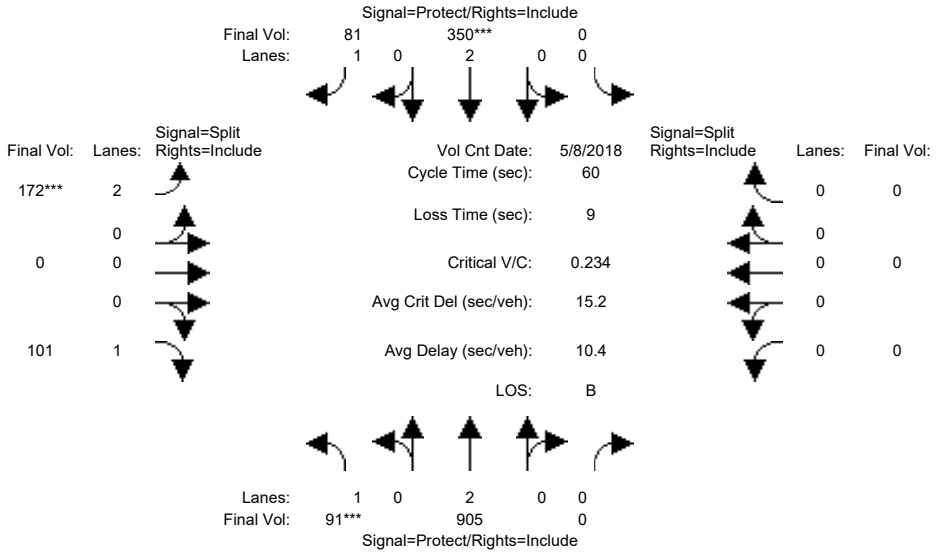
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #116: Monterey Road and Old Monterey Road



Street Name:	Monterey Road						Old Monterey Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	91	897	0	0	339	81	171	0	101	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	897	0	0	339	81	171	0	101	0	0	0
Added Vol:	0	8	0	0	11	0	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	905	0	0	350	81	172	0	101	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	905	0	0	350	81	172	0	101	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	905	0	0	350	81	172	0	101	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	905	0	0	350	81	172	0	101	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.00	0.00	0.09	0.05	0.05	0.00	0.06	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	13.1	36.4	0.0	0.0	23.3	23.3	14.6	0.0	14.6	0.0	0.0	0.0
Volume/Cap:	0.24	0.39	0.00	0.00	0.24	0.12	0.22	0.00	0.24	0.00	0.00	0.00
Delay/Veh:	19.6	6.2	0.0	0.0	12.5	11.9	18.3	0.0	18.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.6	6.2	0.0	0.0	12.5	11.9	18.3	0.0	18.5	0.0	0.0	0.0
LOS by Move:	B	A	A	A	B	B	B	A	B	A	A	A
HCM2kAvgQ:	1	4	0	0	2	1	2	0	2	0	0	0

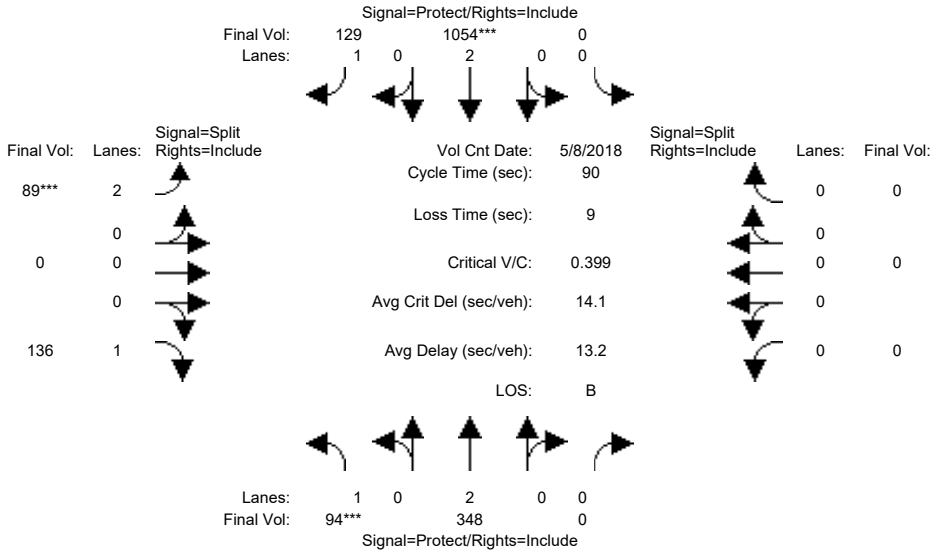
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #116: Monterey Road and Old Monterey Road



Street Name:	Monterey Road						Old Monterey Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	94	348	0	0	1054	129	89	0	136	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	348	0	0	1054	129	89	0	136	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	348	0	0	1054	129	89	0	136	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94	348	0	0	1054	129	89	0	136	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	348	0	0	1054	129	89	0	136	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	348	0	0	1054	129	89	0	136	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.09	0.00	0.00	0.28	0.07	0.03	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	10.3	63.5	0.0	0.0	53.2	53.2	17.5	0.0	17.5	0.0	0.0	0.0
Volume/Cap:	0.47	0.13	0.00	0.00	0.47	0.12	0.15	0.00	0.40	0.00	0.00	0.00
Delay/Veh:	39.0	4.3	0.0	0.0	10.6	8.2	30.1	0.0	32.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.0	4.3	0.0	0.0	10.6	8.2	30.1	0.0	32.4	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	A	C	A	C	A	A	A
HCM2kAvgQ:	3	2	0	0	8	2	1	0	4	0	0	0

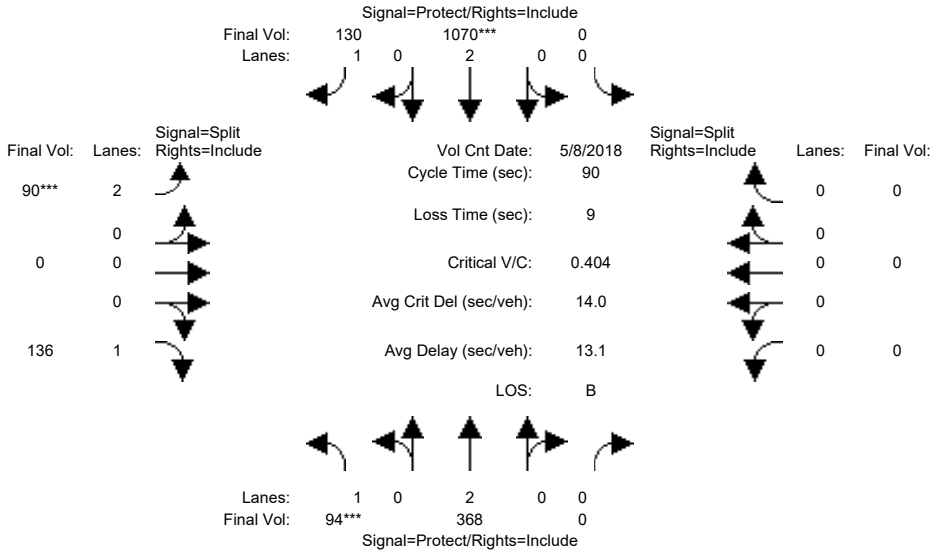
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #116: Monterey Road and Old Monterey Road



Street Name:	Monterey Road						Old Monterey Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	94	348	0	0	1054	129	89	0	136	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	348	0	0	1054	129	89	0	136	0	0	0
Added Vol:	0	20	0	0	16	1	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	368	0	0	1070	130	90	0	136	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94	368	0	0	1070	130	90	0	136	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	368	0	0	1070	130	90	0	136	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	368	0	0	1070	130	90	0	136	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.00	0.00	0.28	0.07	0.03	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	10.2	63.7	0.0	0.0	53.5	53.5	17.3	0.0	17.3	0.0	0.0	0.0
Volume/Cap:	0.47	0.14	0.00	0.00	0.47	0.12	0.15	0.00	0.40	0.00	0.00	0.00
Delay/Veh:	39.2	4.3	0.0	0.0	10.5	8.1	30.3	0.0	32.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.2	4.3	0.0	0.0	10.5	8.1	30.3	0.0	32.6	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	A	C	A	C	A	A	A
HCM2kAvgQ:	3	2	0	0	8	2	1	0	4	0	0	0

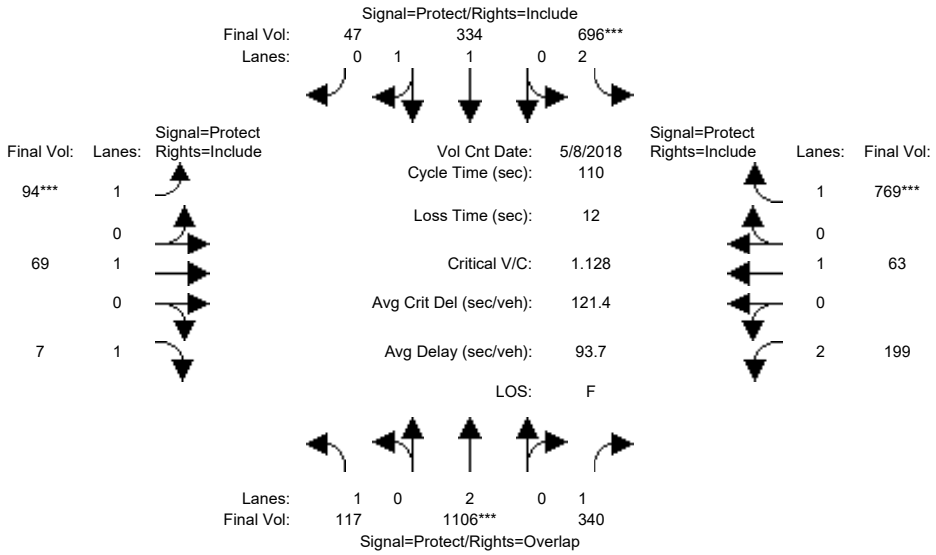
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2030 Cumulative without Project AM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	117	1106	340	696	334	47	94	69	7	199	63	769
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	1106	340	696	334	47	94	69	7	199	63	769
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	1106	340	696	334	47	94	69	7	199	63	769
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	1106	340	696	334	47	94	69	7	199	63	769
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	1106	340	696	334	47	94	69	7	199	63	769
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	117	1106	340	696	334	47	94	69	7	199	63	769
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.75	0.25	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3243	456	1750	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.29	0.19	0.22	0.10	0.10	0.05	0.04	0.00	0.06	0.03	0.44
Crit Moves:		****		****			****					****
Green Time:	19.3	27.8	48.0	21.1	29.7	29.7	7.0	28.8	28.8	20.2	42.0	42.0
Volume/Cap:	0.38	1.15	0.44	1.15	0.38	0.38	0.84	0.14	0.02	0.34	0.09	1.15
Delay/Veh:	40.9	121	22.1	130.0	32.9	32.9	92.3	31.2	30.1	39.5	21.8	118.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.9	121	22.1	130.0	32.9	32.9	92.3	31.2	30.1	39.5	21.8	118.1
LOS by Move:	D	F	C	F	C	C	F	C	C	D	C	F
HCM2kAvgQ:	4	31	9	22	5	5	6	2	0	3	1	43

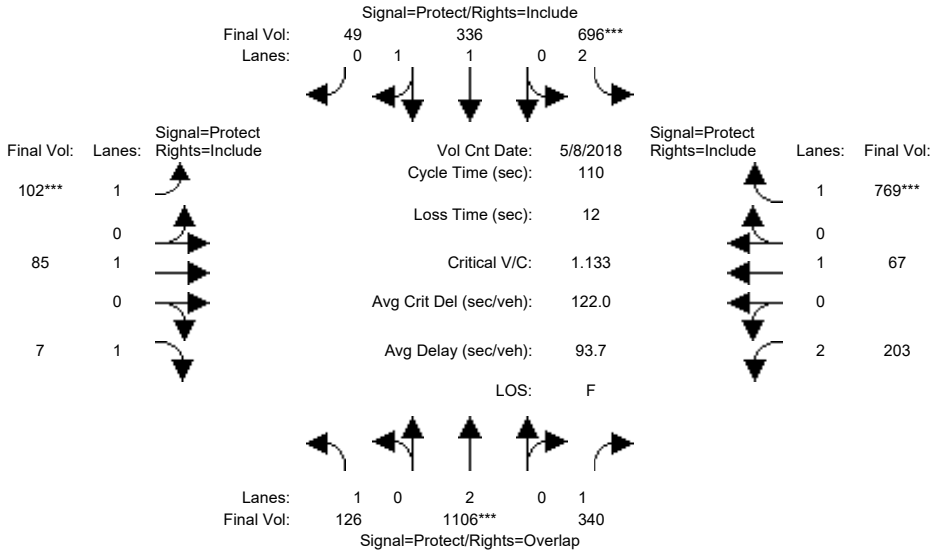
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2030 Cumulative with Project AM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	117	1106	340	696	334	47	94	69	7	199	63	769
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	1106	340	696	334	47	94	69	7	199	63	769
Added Vol:	9	0	0	0	2	2	8	16	0	4	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	126	1106	340	696	336	49	102	85	7	203	67	769
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	126	1106	340	696	336	49	102	85	7	203	67	769
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	126	1106	340	696	336	49	102	85	7	203	67	769
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	126	1106	340	696	336	49	102	85	7	203	67	769
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.74	0.26	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3229	471	1750	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.29	0.19	0.22	0.10	0.10	0.06	0.04	0.00	0.06	0.04	0.44
Crit Moves:		****		****			****					****
Green Time:	20.0	27.8	48.2	21.1	28.9	28.9	7.0	28.7	28.7	20.3	42.0	42.0
Volume/Cap:	0.40	1.15	0.44	1.15	0.40	0.40	0.92	0.17	0.02	0.35	0.09	1.15
Delay/Veh:	40.5	121	22.0	130.0	33.6	33.6	110.5	31.6	30.2	39.4	21.8	118.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.5	121	22.0	130.0	33.6	33.6	110.5	31.6	30.2	39.4	21.8	118.1
LOS by Move:	D	F	C	F	C	C	F	C	C	D	C	F
HCM2kAvgQ:	4	31	9	22	5	5	7	2	0	3	1	43

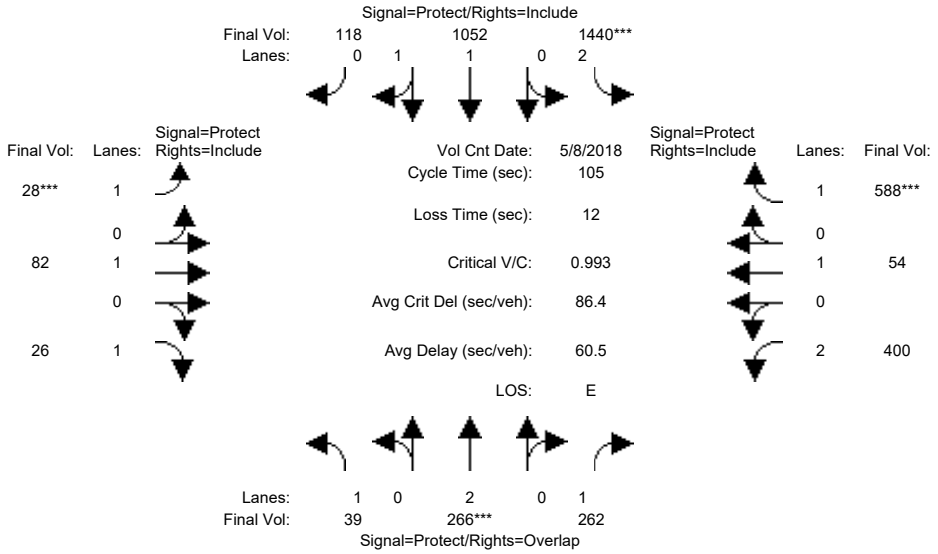
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2030 Cumulative without Project PM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	39	266	262	1440	1052	118	28	82	26	400	54	588
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	266	262	1440	1052	118	28	82	26	400	54	588
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	266	262	1440	1052	118	28	82	26	400	54	588
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	266	262	1440	1052	118	28	82	26	400	54	588
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	266	262	1440	1052	118	28	82	26	400	54	588
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	266	262	1440	1052	118	28	82	26	400	54	588
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.79	0.21	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3327	373	1750	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.07	0.15	0.46	0.32	0.32	0.02	0.04	0.01	0.13	0.03	0.34
Crit Moves:		****		****			****					****
Green Time:	9.4	10.0	32.4	43.8	44.4	44.4	7.0	16.8	16.8	22.4	32.2	32.2
Volume/Cap:	0.25	0.74	0.49	1.10	0.75	0.75	0.24	0.27	0.09	0.60	0.09	1.10
Delay/Veh:	45.4	53.8	30.2	85.9	27.6	27.6	47.5	39.2	37.7	38.7	26.0	104.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.4	53.8	30.2	85.9	27.6	27.6	47.5	39.2	37.7	38.7	26.0	104.0
LOS by Move:	D	D	C	F	C	C	D	D	D	D	C	F
HCM2kAvgQ:	1	6	8	37	15	15	1	2	1	7	1	29

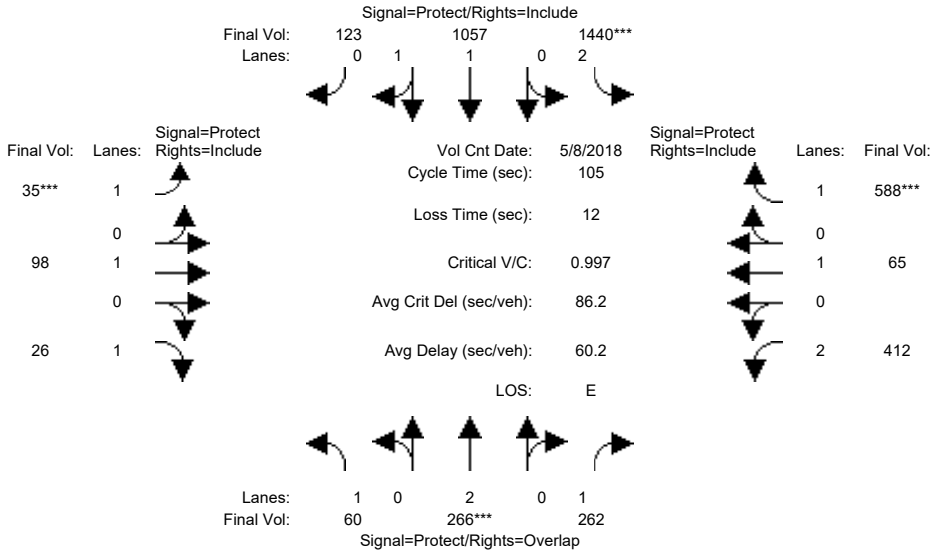
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2030 Cumulative with Project PM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	39	266	262	1440	1052	118	28	82	26	400	54	588
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	266	262	1440	1052	118	28	82	26	400	54	588
Added Vol:	21	0	0	0	5	5	7	16	0	12	11	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	266	262	1440	1057	123	35	98	26	412	65	588
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	266	262	1440	1057	123	35	98	26	412	65	588
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	266	262	1440	1057	123	35	98	26	412	65	588
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	266	262	1440	1057	123	35	98	26	412	65	588
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.79	0.21	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3314	386	1750	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.15	0.46	0.32	0.32	0.02	0.05	0.01	0.13	0.03	0.34
Crit Moves:		****		****			****					****
Green Time:	9.3	10.0	32.7	43.8	44.5	44.5	7.0	16.5	16.5	22.7	32.2	32.2
Volume/Cap:	0.39	0.74	0.48	1.10	0.75	0.75	0.30	0.33	0.09	0.61	0.11	1.10
Delay/Veh:	46.8	53.8	30.0	85.9	27.7	27.7	48.1	40.0	38.0	38.7	26.2	104.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.8	53.8	30.0	85.9	27.7	27.7	48.1	40.0	38.0	38.7	26.2	104.0
LOS by Move:	D	D	C	F	C	C	D	D	D	D	C	F
HCM2kAvgQ:	2	6	8	37	15	15	1	3	1	7	1	29

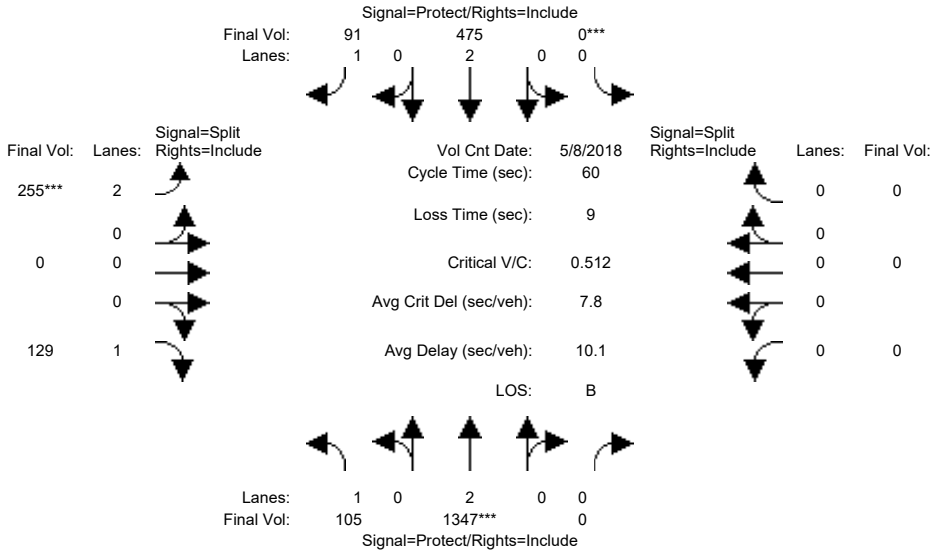
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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2030 Cumulative without Project AM

Intersection #116: Monterey Road and Old Monterey Road



Street Name:	Monterey Road						Old Monterey Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	105	1347	0	0	475	91	255	0	129	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	1347	0	0	475	91	255	0	129	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	1347	0	0	475	91	255	0	129	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	1347	0	0	475	91	255	0	129	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	1347	0	0	475	91	255	0	129	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	105	1347	0	0	475	91	255	0	129	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.35	0.00	0.00	0.13	0.05	0.08	0.00	0.07	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green Time:	16.9	41.0	0.0	0.0	24.1	24.1	10.0	0.0	10.0	0.0	0.0	0.0
Volume/Cap:	0.21	0.52	0.00	0.00	0.31	0.13	0.49	0.00	0.44	0.00	0.00	0.00
Delay/Veh:	16.7	4.8	0.0	0.0	12.4	11.4	23.4	0.0	23.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.7	4.8	0.0	0.0	12.4	11.4	23.4	0.0	23.6	0.0	0.0	0.0
LOS by Move:	B	A	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	2	6	0	0	3	1	3	0	3	0	0	0

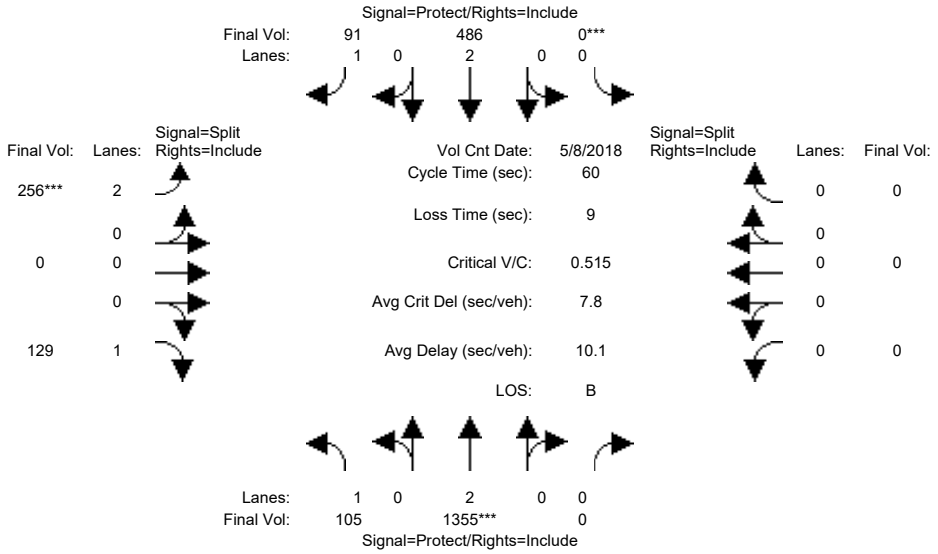
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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2030 Cumulative with Project AM

Intersection #116: Monterey Road and Old Monterey Road



Street Name:	Monterey Road						Old Monterey Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	105	1347	0	0	475	91	255	0	129	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	1347	0	0	475	91	255	0	129	0	0	0
Added Vol:	0	8	0	0	11	0	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	1355	0	0	486	91	256	0	129	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	1355	0	0	486	91	256	0	129	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	1355	0	0	486	91	256	0	129	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	105	1355	0	0	486	91	256	0	129	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.36	0.00	0.00	0.13	0.05	0.08	0.00	0.07	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green Time:	16.9	41.0	0.0	0.0	24.1	24.1	10.0	0.0	10.0	0.0	0.0	0.0
Volume/Cap:	0.21	0.52	0.00	0.00	0.32	0.13	0.49	0.00	0.44	0.00	0.00	0.00
Delay/Veh:	16.7	4.9	0.0	0.0	12.4	11.4	23.4	0.0	23.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.7	4.9	0.0	0.0	12.4	11.4	23.4	0.0	23.6	0.0	0.0	0.0
LOS by Move:	B	A	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	2	6	0	0	3	1	3	0	3	0	0	0

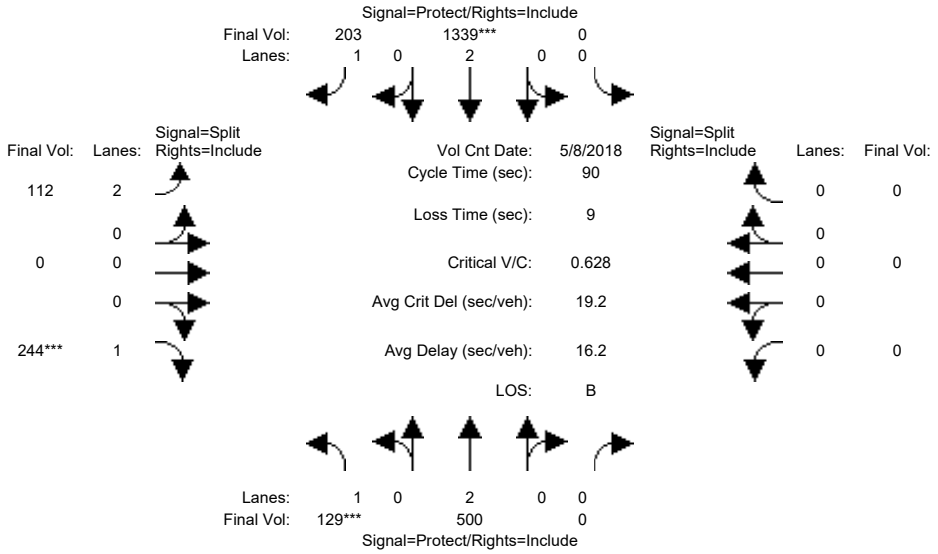
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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2030 Cumulative without Project PM

Intersection #116: Monterey Road and Old Monterey Road



Street Name:	Monterey Road						Old Monterey Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	129	500	0	0	1339	203	112	0	244	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	129	500	0	0	1339	203	112	0	244	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	129	500	0	0	1339	203	112	0	244	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	500	0	0	1339	203	112	0	244	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	500	0	0	1339	203	112	0	244	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	129	500	0	0	1339	203	112	0	244	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.00	0.00	0.35	0.12	0.04	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green Time:	10.6	61.0	0.0	0.0	50.5	50.5	20.0	0.0	20.0	0.0	0.0	0.0
Volume/Cap:	0.63	0.19	0.00	0.00	0.63	0.21	0.16	0.00	0.63	0.00	0.00	0.00
Delay/Veh:	43.9	5.4	0.0	0.0	14.0	9.9	28.4	0.0	34.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	5.4	0.0	0.0	14.0	9.9	28.4	0.0	34.9	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	A	C	A	C	A	A	A
HCM2kAvgQ:	4	2	0	0	13	3	2	0	8	0	0	0

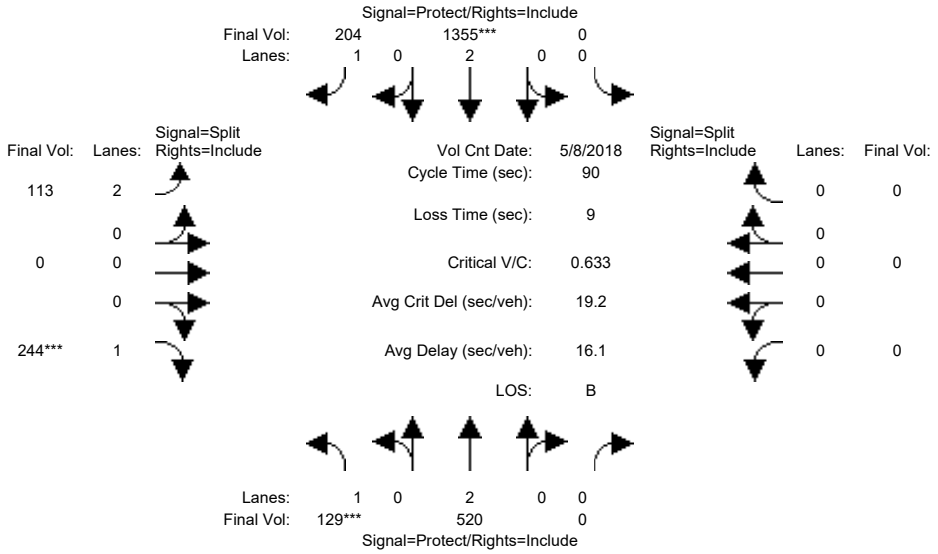
Note: Queue reported is the number of cars per lane.

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City of Morgan Hill
Monterey Townhomes Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2030 Cumulative with Project PM

Intersection #116: Monterey Road and Old Monterey Road



Street Name:	Monterey Road						Old Monterey Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	129	500	0	0	1339	203	112	0	244	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	129	500	0	0	1339	203	112	0	244	0	0	0
Added Vol:	0	20	0	0	16	1	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	129	520	0	0	1355	204	113	0	244	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	520	0	0	1355	204	113	0	244	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	520	0	0	1355	204	113	0	244	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	129	520	0	0	1355	204	113	0	244	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.00	0.00	0.36	0.12	0.04	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green Time:	10.5	61.2	0.0	0.0	50.7	50.7	19.8	0.0	19.8	0.0	0.0	0.0
Volume/Cap:	0.63	0.20	0.00	0.00	0.63	0.21	0.16	0.00	0.63	0.00	0.00	0.00
Delay/Veh:	44.3	5.4	0.0	0.0	14.0	9.8	28.5	0.0	35.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.3	5.4	0.0	0.0	14.0	9.8	28.5	0.0	35.2	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	A	C	A	D	A	A	A
HCM2kAvgQ:	4	3	0	0	13	3	2	0	8	0	0	0

Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants, Inc.

Memorandum

Date: July 1, 2022

To: Nick Pappani, Raney Planning & Management

From: Robert Del Rio, T.E., Luis Descanzo

Subject: VMT Assessment for the Proposed The Gates Mixed-Use Development in Morgan Hill, California

Hexagon Transportation Consultants, Inc. has completed a vehicle-miles traveled (VMT) assessment for The Gates Mixed-Use Development project located at 18545-18565 Monterey Road (APNs 764-10-013, -015) in Morgan Hill, California (see Figure 1). The project as proposed would consist of 49 townhome units and 4,016 square feet (s.f.) of ground-floor retail space on a vacant lot located along the westside of Monterey Road just north of Jarvis Drive. Approximately 15% of the units will be affordable residential units. The purpose of this memorandum is to provide an assessment of the project's effect on VMT. The VMT assessment methodology and results are discussed below.

VMT Assessment Methodology and Results

Pursuant to Senate Bill (SB) 743, the California Environmental Quality Act (CEQA) 2019 Update Guidelines Section 15064.3, subdivision (b) states that VMT will be the metric in analyzing transportation impacts for land use projects for CEQA purposes. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project.

The City of Morgan Hill, at the time of this report, is undertaking a process of updating its General Plan policies to incorporate VMT methodologies and significance thresholds to be consistent with SB 743 but has not released draft thresholds. In the absence of an adopted, or a draft, City policy with impact standards and thresholds, this assessment relies on the Governor's Office of Planning and Research (OPR) guidelines in analyzing the project's effects on VMT.

OPR Screening Recommendations

The *Technical Advisory on Evaluating Transportation Impacts in CEQA* published by OPR in December 2018 provides recommendations regarding VMT evaluation methodology, significance thresholds, and screening thresholds for the evaluation of land use projects.

The OPR provides screening threshold recommendations that are intended to identify when a project should be expected to cause a less-than-significant impact without conducting a detailed VMT evaluation. The OPR screening thresholds recommendations are based on project size, maps, transit availability, and provision of affordable housing. The OPR recommendations include the screening threshold criteria listed below:

Figure 1
Site Location

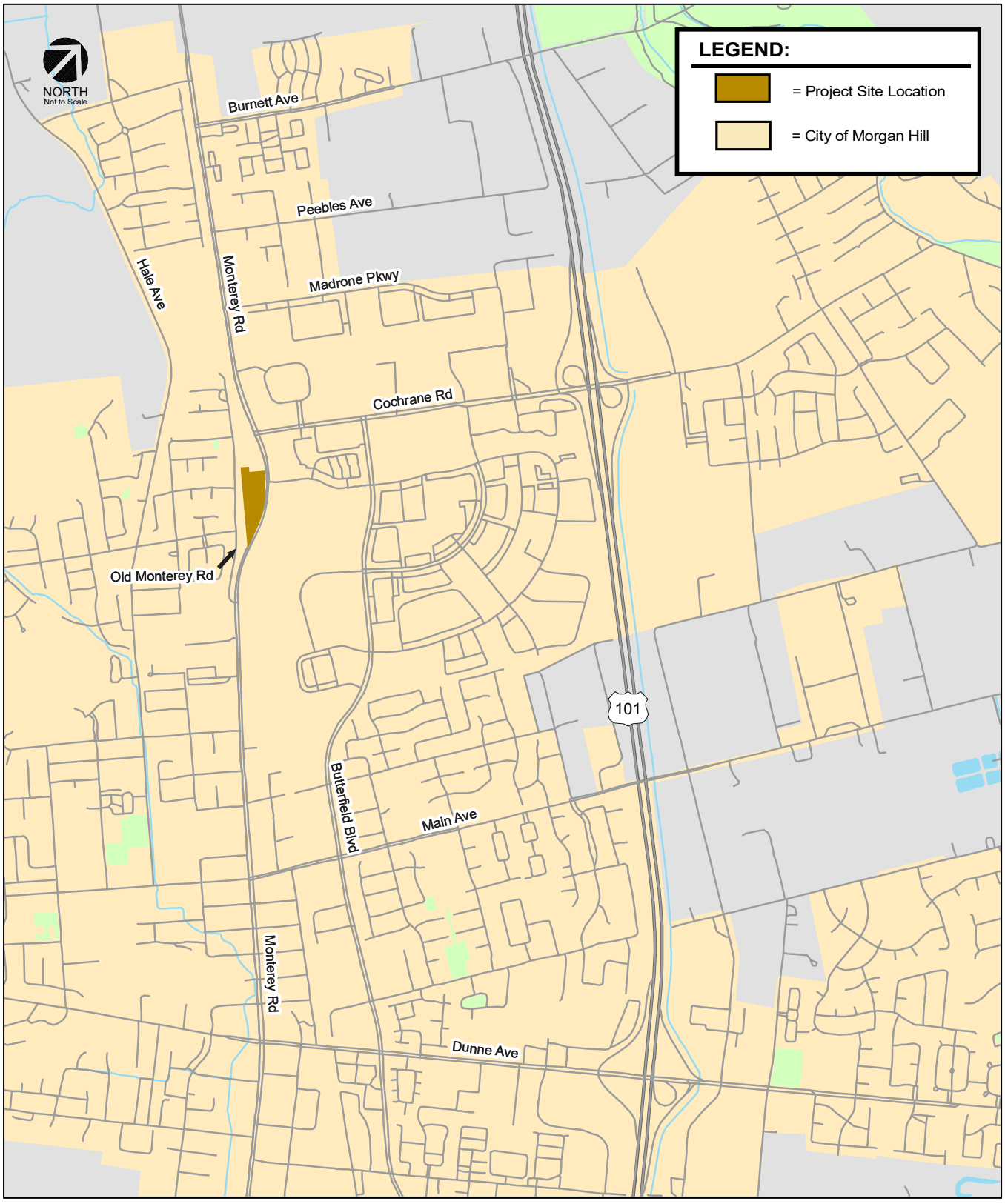
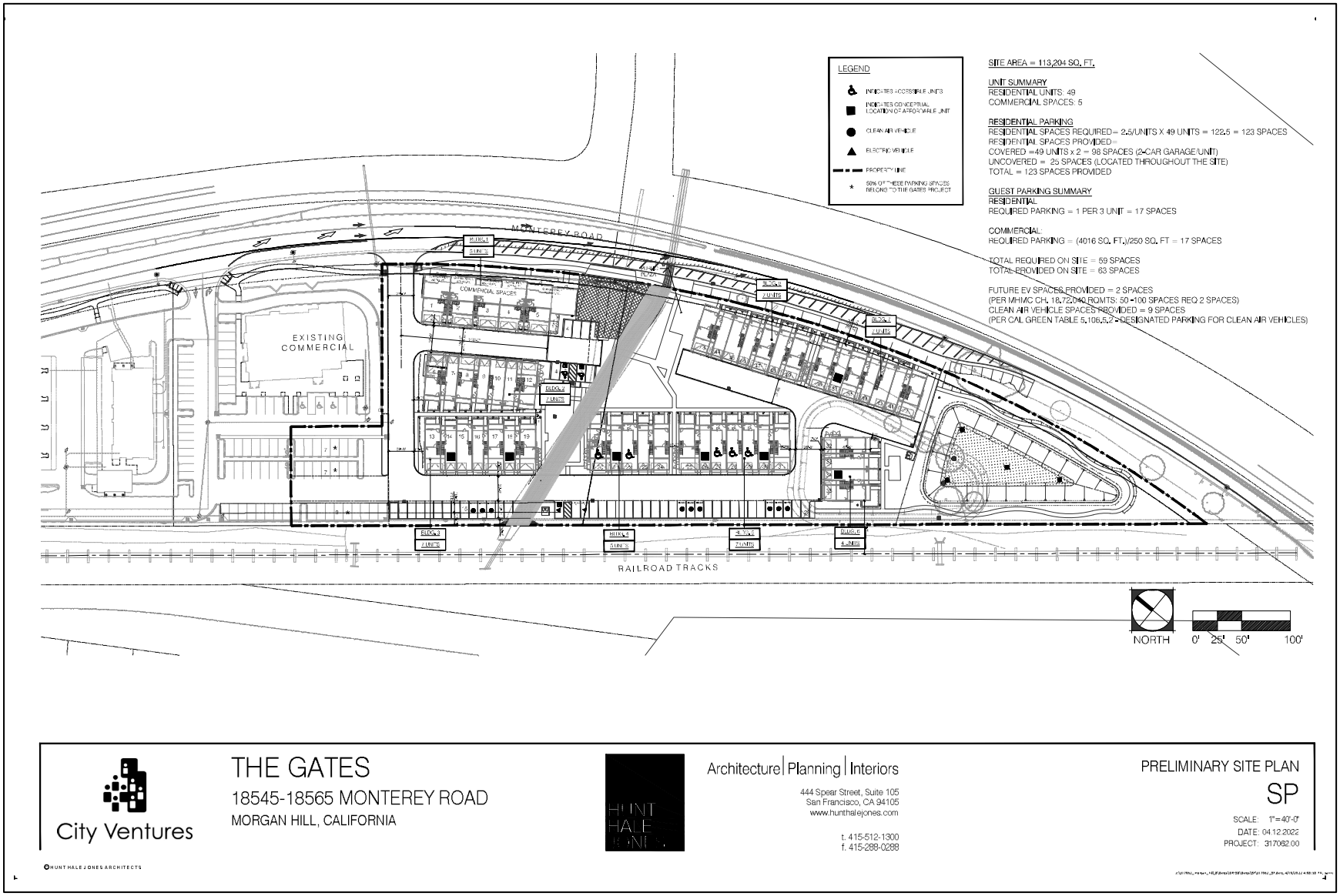


Figure 2
Site Plan



- ***OPR recommends that office or residential projects not exceeding a level of 15 percent below existing VMT per capita and employee may indicate a less-than-significant impact on VMT.***
- OPR recommends that projects (including office, residential, retail, and mixed-use developments) proposed within ½ mile of an existing major transit stop or within ¼ mile of an existing stop along a high-quality transit corridor may be presumed to have a less-than-significant impact on VMT.
- OPR recommends that 100 percent affordable residential development in infill locations be presumed to have a less-than-significant impact on VMT.
- OPR recommends that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant impact on VMT.
- ***OPR recommends that local-serving retail developments (considered to be less than 50,000 s.f. in size) may be assumed to cause a less-than-significant impact on VMT.***

Residential VMT Evaluation

Per OPR's technical advisory, VMT per resident (capita) is the recommended metric to evaluate CEQA-related transportation impacts for the project's residential component. As stated in the technical advisory, OPR recommends an impact threshold of 15% below the existing VMT levels for residential land uses. OPR allows the existing VMT to be measured as regional or citywide VMT per capita. Therefore, 15% below the citywide residential VMT per capita is established as the impact threshold for residential uses.

The evaluation of the project's effects on VMT was completed using *VTA's VMT Evaluation Tool.* The VMT tool identifies the existing average VMT per capita and VMT per employee for the project area based on the assessor's parcel number (APN) of a project. Based on the project location, type of development, project description, and proposed trip reduction measures, the evaluation tool calculates the project VMT. Projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas". Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible.

Baseline VMT

The VTA's VMT Evaluation Tool indicates that the citywide average VMT per capita is currently 24.64. Therefore, the OPR recommended impact threshold of 15% below the citywide average VMT per capita equates to 20.94 VMT per capita.

Project VMT

The results of the VMT analysis using the VTA's VMT Evaluation Tool indicate that the existing VMT (20.09) per capita for residential uses in the project vicinity is less than the citywide average VMT per capita.

The results also indicate that the project is projected to generate VMT per capita (19.4), that would not exceed the OPR's recommended impact threshold of 20.94 VMT per capita. Therefore, the residential component of the project would not result in an impact on the transportation system based on OPR's VMT impact criteria.

The VTA VMT Evaluation Tool output sheets are shown in Figure 3.

Retail VMT Evaluation

The project's retail component consists of 4,016 s.f. of ground-floor retail space. Since the proposed retail use would be less than 50,000 s.f. in size, it may be presumed to be a local-serving facility and would therefore have a less-than-significant impact on VMT. The OPR guidelines suggest that by adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. As a result of the project having trip-making characteristics of a local-serving retail facility, it can be presumed that the retail component of the project would have a less-than-significant impact on VMT.

Figure 3
VTA VMT Evaluation Tool Output

Santa Clara Countywide VMT Evaluation Tool - Version 2 - Report

Valley Transportation Authority

Residential Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Residential
VMT Metric 1:	Home-based VMT per Capita
VMT Baseline Description 1:	City Average
VMT Baseline Value 1:	24.64
VMT Threshold Description 1 / Threshold Value 1:	-15% / 20.94
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	20.09	19.4	19.4
Low VMT Screening Analysis	Yes (Pass)	Yes (Pass)	Yes (Pass)

