Mitigated Negative Declaration/Initial Study
Aviator and East Monte Vista Warehouse Project

Prepared for:

City of Vacaville

Community Development Department

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Vacaville, California 95688

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADWF	average dry weather flow
AFY	acre-feet per year
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
ANSI	American National Standards Institute
APN	Assessor's Parcel Number
BAAQMD	Bay Area Air Quality Management District
BAU	Business as Usual
BMP	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CG	Commercial General
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CIP	Capital Improvements Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CUPA	Certified Unified Program Agency
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
DE	Diatomaceous Earth
DNL	Level Day Night
DOC	California Department of Conservation
DOF	Department of Finance
DTSC	Department of Toxic Substances Control
ECAS	Energy Conservation Action Strategy
EIR	Environmental Impact Report
ESA	Environmentally Sensitive Area
EV	electric vehicle
EWWTP	Easterly Wastewater Treatment Plant
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation

Acronym/Abbreviation	Definition
FEMA	Federal Emergency Management Agency
FGC	Fish and Game Code
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Agency
GHG	greenhouse gas
HCP	Habitat Conservation Plan
HVAC	heating, ventilation, and air conditioning
IP	Industrial Park
IS/MND	Initial Study/Mitigated Negative Declaration
LED	light emitting diode
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MGD	million gallons per day
MM	mitigation measure
MPE	Mid Pacific Engineering
MRZ	Mineral Resource Zone
MT	metric tons
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NBA	North Bay Aqueduct
NBR Plant	North Bay Regional Water Treatment Plant
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
NWIC	Northwestern Information Center
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter
PPV	peak particle velocity
ROG	reactive organic gases
SAS	Solano Archaeological Services
SB	Senate Bill
SCWA	Solano County Water Agency
SID	Solano Irrigation District
SLF	Sacred Lands File
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SRA	State Responsibility Area
SVAB	Sacramento Valley Air Basin
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TCR	tribal cultural resources
USFWS	U.S. Fish and Wildlife Service

Acronym/Abbreviation	Definition
USGS	United Stated Geological Survey
UWMP	Urban Water Management Plan
VFD	Vacaville Fire Department
VMT	vehicle miles traveled
VOC	Volatile Organic Compounds
VPD	Vacaville Police Department
VUSD	Vacaville Unified School District
WDO	Waste Discharger Order
WWTP	Wastewater Treatment Plant
YSAQMD	Yolo Solano Air Quality Management District

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1 Introduction

1.1 Project Overview and Project Background

The Aviator and East Monte Vista Warehouse project (proposed project) site is located on Aviator Drive between Cessna Drive and East Monte Vista Avenue in the northwestern portion of the City of Vacaville (City) in the Vacaville-Golden Hills Business Park Policy Plan Area, as shown in Figure 1, Project Location. The Solano County Water Agency offices and the recently approved Vaca Valley Hotel project and associated commercial uses are located immediately adjacent to the north of the project site; miscellaneous industrial uses are located further to the west across Cessna Drive and to the south; undeveloped land is located to the northeast; and a self-storage facility and Interstate-505 (I-505) are located to the east. The project applicant, Buzz Oates, is proposing to develop two one-story concrete tilt-up warehouses totaling approximately up to a maximum of 520,000 square feet (sf) with a maximum building height of 49 feet-6 inches.

The topography of the approximately 30-acre project site (Assessor's Parcel Numbers [APNs] 133-210-710; -670; -680; -290; -300) is flat and located approximately 100-115 feet above mean sea level, from the northeast corner to the southwest corner. The project site is undeveloped, with no buildings or other on-site structures. The site consists of bare, exposed dirt, with the exception of a variety of tree species that surround the site along the east, west, and south, and some scattered trees and shrubs present within the site including mature cottonwood, pecan and black walnut trees. A majority of the on-site trees would be removed to accommodate the project, although approximately 21 of the existing perimeter trees in good condition along the western, southern, and eastern project boundary would be retained. An existing storm drain canal (also known as Horse Creek) is located within a 40-foot-wide storm drain easement adjacent to Vaca Valley Parkway north of the site. The Nut Tree Airport is located approximately 1.0 mile to the south.

The nearest school to the project site is Solano Community College Vacaville Center, located approximately 0.65 mile to the east. The nearest K-6 public school is Browns Valley Elementary School, located approximately 1.5 miles southwest of the project site.

The City's General Plan designates the site as Industrial Park (IP) on the western side (APNs -710; -670; -680) and Commercial General (CG) on the eastern side (APNs -290; -300) (City of Vacaville 2015a, Figure LU-6), and the entire site is zoned IP. The IP designation provides sites for industrial uses requiring access to major transportation lines and large areas for structures, truck loading, parking, and storage. It also accommodates light manufacturing and heavy industrial uses. The CG designation provides for a full range of commercial uses, including retail stores, food and drug stores, auto sales, and similar businesses. Surrounding properties are also zoned for commercial and warehouse/industrial uses. The project site is located within the Vacaville-Golden Hills Business Park Policy Plan (Business Park Policy Plan) which establishes the zoning and land use standards for the area. Per the Business Park Policy Plan, the western portion of the site is within Zone III while the eastern portion is within Zone II. Area II is designated as Business Park and Industrial Park, and zoned Industrial Park. Zone III is both designated and zoned IP. The zoning and land use designations for Zone III are consistent with the General Plan and the City's Zoning Ordinance (City of Vacaville 2018).

According to the Department of Conservation Important Farmland Mapping and Monitoring Program, the entire project site is designated as Other Land (DOC 2016), which is not included within the designation of Important Farmlands. The project site does not include an active Williamson Act Contract.

The project site is located within Zones C and D of the Nut Tree Airport Land Use Compatibility Plan (City of Vacaville 2015a, Figure LU-4). Zone C, defined as the Outer Approach/Departure Zone, limits density to 50 people within structures and 75 people per acre.[1] Zone D, defined as the Extended Approach/Departure Zone, limits density to 100 people within structures and 150 people per acre. Additionally, height limits are established consistent with the Federal Aviation Administration (FAA) Federal Aviation Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace,* which states that any buildings exceeding 200 feet above ground level must undergo review by the Solano County Airport Land Use Commission (ALUC), and the Administrator of the FAA must be notified (Solano County 2010). The project site is also located within Zone D of the Land Use Compatibility Plan for the Travis Air Force Base. The Travis Air Force Base Land Use Compatibility Plan does not include any limits related to density, but establishes height limits consistent with the FAA (Solano County 2015).

1.2 Project Description

The proposed project includes development of two speculative warehouses totaling up to a maximum of 520,000 sf, along with 398 vehicle parking spaces, 112 truck trailer spaces, and 24 bicycle parking spaces that would surround both buildings. The maximum building height would be 49 feet-6 inches (see Figure 2, Site Plan).

The two buildings, Building 1 and Building 2, would consist of one-story concrete tilt-up construction with varying finished grades. The buildings would feature paneling in varying shades of white and grey. All walls where the exterior grade is higher than the finish floor and exposed to the weather would be waterproofed. Building 1, the larger of the two buildings at approximately 305,000 sf, would be located within the western portion of the project site. Both the north and south sides of Building 1 would include 49 metal docks for loading /deliveries. Each corner of the building would provide space for potential office tenants, as shown on Figure 2. Building 2, totaling approximately 204,000 sf, would include 36 docks for loading/deliveries long the eastern side of the building, and three potential office spaces along the western side. Vehicle parking spaces would surround the two buildings.

The Business Park Policy Plan establishes the zoning and land use standards for the area. The project site is located in both Area II and Area III of the Plan. Area II limits the height of structures within 250 feet of Vaca Valley Parkway and East Monte Vista Avenue to 36 feet, while Area III limits building height to 70 feet. Building 1 is within Area III and is consistent with the established height limit. Building 2, along East Monte Vista Avenue is within Area II and is subject to the 36-foot height limit. As a part of the project, the project applicant is requesting a General Plan Amendment from CG (APNs -290; -300) to IP, consistent with the underlying zoning as well as other discretionary approvals. Additionally, the Business Park Policy Plan allows the City Director of Community Development to review and approve exceptions to building height, as well as other factors such as Floor Area Ratio (FAR) and landscaping plans, if necessary.

An overview of the various project elements is included below.

Landscaping/Lighting

The project includes a landscaping plan that provides a variety of trees, shrubs, and grasses to be planted on the project site. The parking area would be surrounded by trees to provide shade, including common hackberry, Chinese pistache, London plane, and Valley Oak. Overall, the parking lot would be 66% percent shaded, with the most shade along those parking spaces facing Cessna Drive, Aviator Drive, and East Monte Vista Avenue. Other trees that would

[1] The use should generally not attract more than the indicated number of persons per net acre. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses (Solano County 2010).

be planted around the parking lot area include Pacific wax myrtle, California sycamore, hybrid poplar, and Interior Live Oak trees. A variety of shrubs and groundcover plants would front the project site along Cessna Drive, Aviator Drive, and East Monte Vista Avenue, including varieties of sage, ceanothus, and buckwheat. Dividers separating parking spaces would vary between shrubs and crushed rock mulch. While the area along Vaca Valley Parkway would also include some of these shrubs and groundcover species, the majority would be covered with low-growing native grasses, including fescues, California Hairgrass, and Blue Pacific Rush.

The project includes overhead LED lights on poles 25 feet tall within the parking areas, as well as building lights. All lighting would be shielded to prevent light spillover onto adjacent areas, consistent with Section 14.09.127.110 of the City's Land Use Development Code.

Circulation System

Site access would be provided by four driveways along Aviator Drive, two along Cessna Drive, and two along East Monte Vista Avenue (see Figure 2, Site Plan). The project has been designed consistent with City fire standards to ensure adequate access and turning radii is provided for fire equipment. The project would include 398 automobile parking spaces, 112 truck trailer spaces, and 24 bicycle parking spaces generally located around the two proposed buildings.

The Business Park Policy Plan sets standards related to provision of off-street parking. In Area II, one parking space per 200 sf of gross floor area shall be provided for office uses. In Area III, one parking space shall be provided per 2,000 sf of storage/warehouse area for manufacturing and storage/warehouse use. The required number of vehicle parking spaces is 398, which the project would provide. Additionally, per the Business Park Policy Plan, bicycle parking shall be provided in parking lots to encourage the use of bicycles for commute purposes.

Water, Sewer and Storm Drainage Infrastructure

Water

The City and Solano Irrigation District (SID) existing utility infrastructure would serve the proposed project. Water for Building 1 would be supplied by two different existing 8-inch water lines that connect to an existing 12-inch water line in Aviator Drive. The two points of connection would be located at the southwest and southeast corners of the proposed building, and would supply water to the 8-inch fire service line that loops around the warehouse to serve the proposed on-site fire hydrants and the fire pump houses. As a condition of approval, the City is requiring the applicant install separate pump houses at each building site. The two points of connection would also supply two 2-inch domestic water lines to serve Building 1 and the landscape irrigation system. Building 2 would also have two points of connection to the City's water infrastructure. One connection exists at the southwest corner of the property and ties into an existing 8-inch water line that connects to an existing 12-inch water line in Aviator Drive. The other connection is located at the east side of the property and ties into an existing 8-inch water line off the 12-inch water line in East Monte Vista Avenue. These connections would also supply water to the on-site fire hydrants and the 8-inch fire service line that loops around the warehouse. Only the point of connection on East Monte Vista Avenue would supply the 2-inch domestic water line to serve Building 2 and the landscape irrigation system.

Sewer

Two 6-inch sewer lines located at the south of the site would serve Building 1. These sewer lines currently connect to two different existing sewer stubs at the northerly right-of-way line of Aviator Drive, and then connect to a sanitary sewer manhole and an existing 12-inch line that flows to the east. Building 2 would connect to a single 6-inch sewer

line located on the east side of the site. The service connects to an existing 6-inch sanitary sewer stub at the west right-of-way line of East Monte Vista Avenue, which then connects to a sanitary sewer manhole and an existing 21-inch line that flows to the south.

Storm Drain

Two intermittent drainages that once flowed through the site (shown on USGS Allendale quad map dated 1953, photo-revised 1968 and 1973) were realigned as part of the Vacaville-Golden Hills Business Park. The northern drainage now follows Vaca Valley Parkway eastward to the I-505 southbound on-ramp where it turns south. It is then culverted under I-505. The southern drainage passes over the Putah South Canal (canal) to a ditch that follows the general alignment of the canal southward before emptying into the main branch of Horse Creek. Neither realigned channel passes within 400 feet of the site. Aerial photographs show a detention basin was constructed at the northwest corner of Aviator Drive and East Monte Vista Avenue sometime prior to 1993 (Google Earth 2017). The site currently drains to the detention basin, which flows into two storm drains along East Monte Vista Avenue when it overtops.

The proposed on-site drainage system would surround most of the Building 1, and would collect stormwater run-off from the site. The proposed on-site drainage system would collect stormwater at the proposed detention basin located on the southeast corner of the site. Water would then drain through appropriate water quality vault (Aquashield Aqua-Swirl Model AS-4) and be conveyed into the City's storm drain system located at the southeast corner of the property. At Building 2, the northerly portion of the site would drain through water quality swales and discharge to an existing storm drain stub along East Monte Vista Avenue, near the northeast corner of the property. The remainder of the site would drain to the southeast corner of the site, where the on-site system ties into an existing 18-inch storm drain stub on Aviator Drive. The 18-inch stub connects to a 36-inch storm drain main in Aviator Drive and flows eastward towards East Monte Vista Avenue.

Energy Conservation

Energy conservation elements of the project include LED lighting, bicycle parking to encourage a reduction in vehicle trips, infrastructure for electric vehicle (EV) charging, skylights in the buildings to reduce lighting demands, and a white roof to reduce heat island effect and air conditioning demands. Strategic tree placement would also be used to help reduce the heat island effect of large areas of asphalt required for parking and internal roadways. Smart landscape irrigation controllers and efficient water distribution systems would conserve water and reduce the amount of energy needed for landscape irrigation.

Off-site Improvements

There would be no off-site improvements required as part of the proposed project.

Construction Schedule

Project buildout is anticipated to take approximately eight months with completion estimated sometime in the year of 2021, if the project is approved. Approximately 30,000 cubic yards of soil is required to be exported from the site. All construction equipment and construction worker vehicles would be staged (parked) on site during construction.

Project Approvals

Project approvals required from the City include the following:

- General Plan Amendment from Commercial General to Industrial Park
- Design Review Application

This MND/IS may be used by responsible agencies and trustee agencies that may have some approval authority over the proposed project (i.e., to issue a permit). The project applicant would obtain all permits, as required by law. The following agencies have been identified as having potential discretionary authority over approval of certain project elements, or alternatively, may serve in a ministerial capacity. The Solano County Airport Land Use Commission will review the project to determine if it is a compatible use. In addition, the Solano County Local Agency Formation Commission (LAFCo) will use this MND/IS for review of SID's request to annex all of the parcels into their service district boundaries.

- Solano County Airport Land Use Commission
- Solano Irrigation District
- California Department of Fish and Wildlife
- Central Valley Regional Water Quality Control Board
- U.S. Army Corps of Engineers
- Solano County LAFCo
- Yolo-Solano Air Quality Management District.

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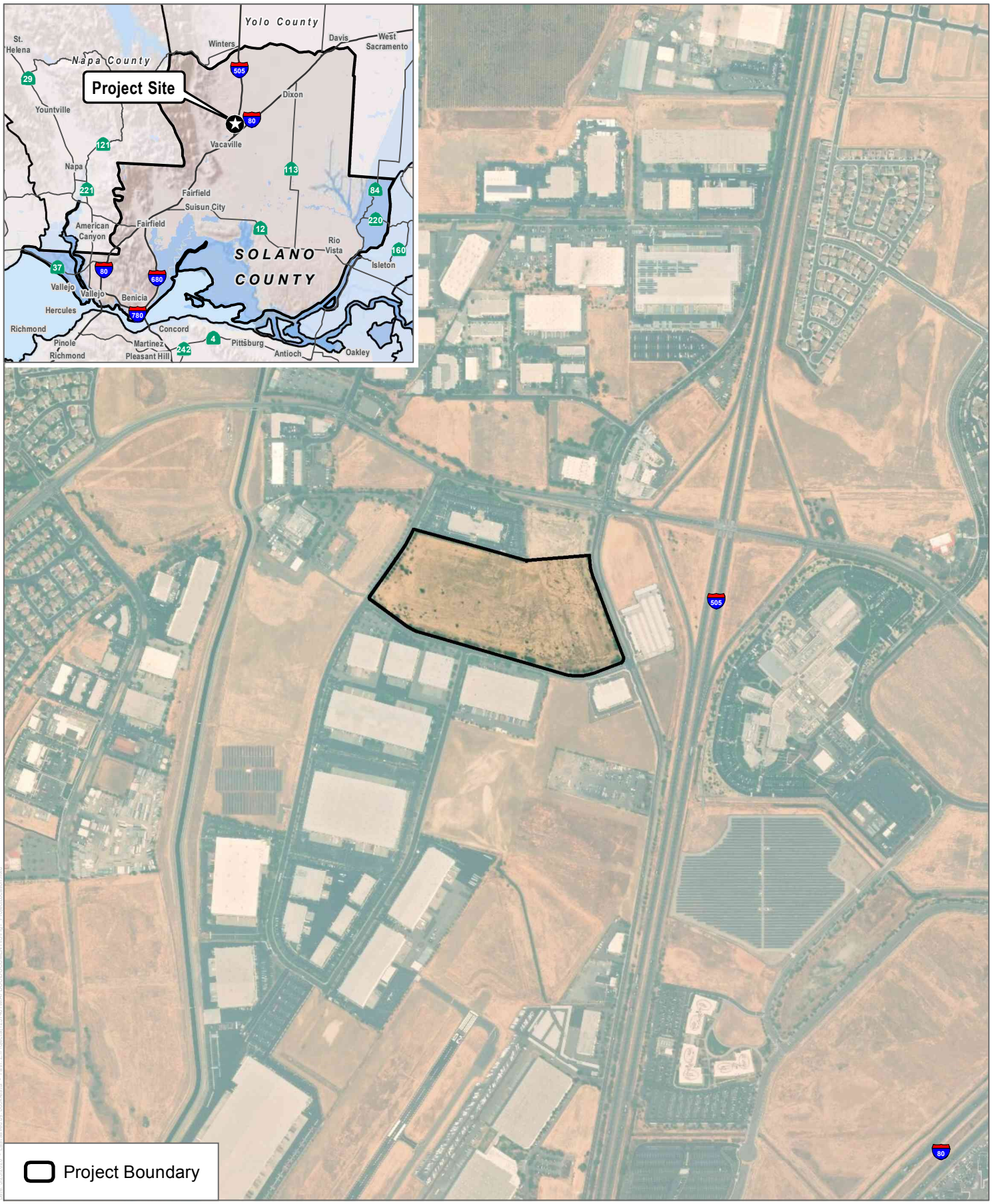

SOURCE: ESRI 2018

DUDEK

0 500 1,000 Feet
0 140 280 Meters
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FIGURE 1

Project Location

Aviator and East Monte Vista Warehouse Project

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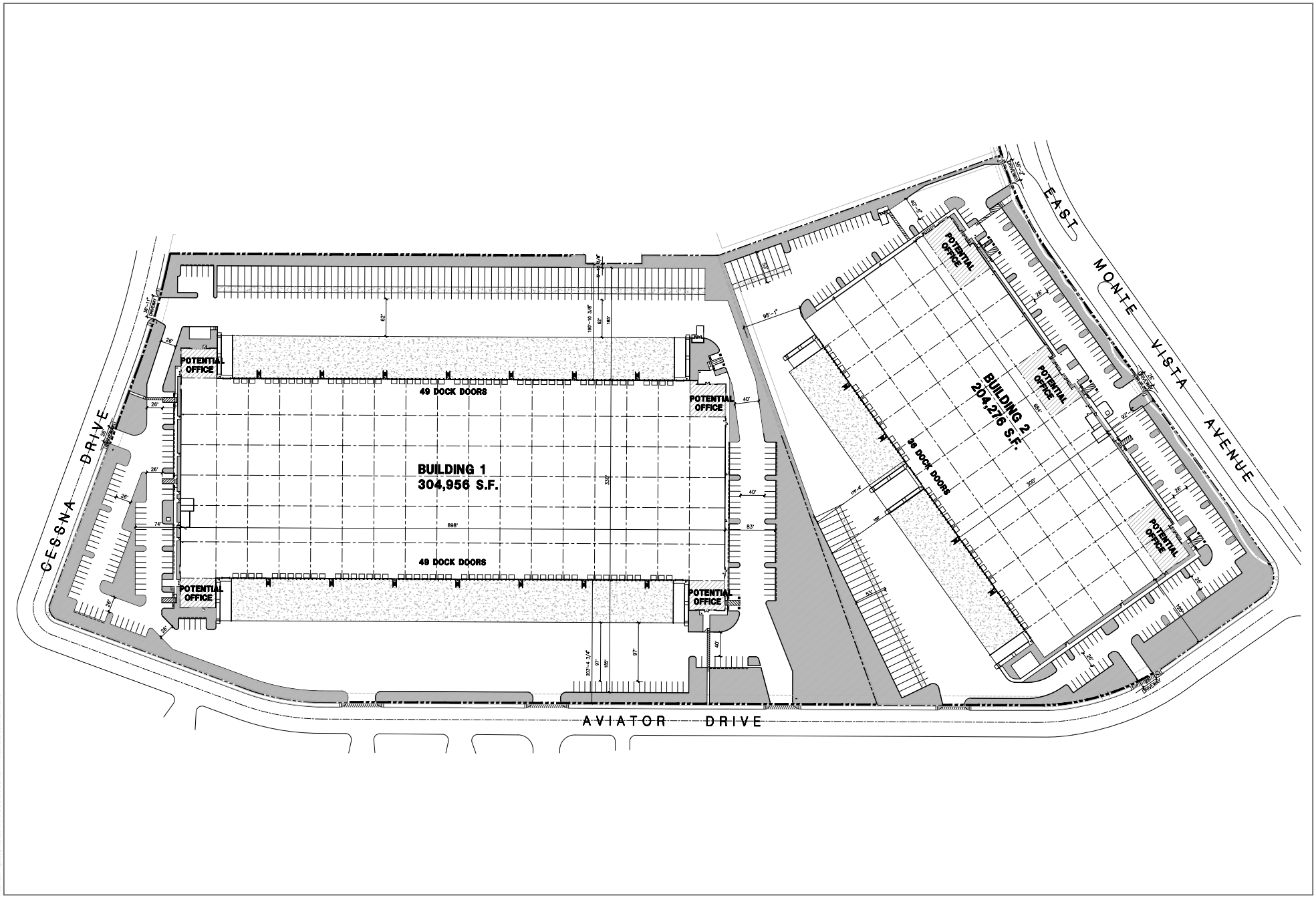

SOURCE: HPA Architecture 2020

FIGURE 2

Site Plan

Aviator and East Monte Vista Warehouse Project

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1.3 California Environmental Quality Act Compliance

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to identify and assess the anticipated environmental impacts of the proposed project. This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA serves as the main framework of environmental law and policy in California. CEQA emphasizes the need for public disclosure and identifying and preventing environmental damage associated with proposed projects. Unless the project is deemed categorically exempt, CEQA is applicable to any discretionary project that must be approved by a public agency in order to be processed and established. This project does not fall under any of the statutory or categorical exemptions listed in the 2018 CEQA Statute and Guidelines (California Public Resources Code, Section 21000 et seq.; 14 California Code of Regulations (CCR) 15000 et seq.), and, therefore, must meet CEQA requirements.

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2 Summary of Findings

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project. All of the impacts can be reduced to a less-than-significant level with mitigation measures identified in the following checklist.

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

2.2 Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

Signature

May 11. 2020.
Date

3 Initial Study Checklist

1. **Project title:**

   Aviator and East Monte Vista Warehouse Project

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

   City of Vacaville
   Community Development Department
   650 Merchant Street
   Vacaville, California 95688

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

   Saul Uribe, Planning Technician
   650 Merchant Street
   Vacaville, California 95688
   707.449.5362
   saul.uribe@cityofvacaville.com

4. **Project location:**

   Aviator Drive between Cessna Drive and East Monte Vista Avenue, City of Vacaville, California

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

   Buzz Oates
   555 Capitol Mall, Suite 900
   Sacramento, California 95814

6. **General plan designation:**

   Industrial Park (IP) on the western side (APNs -710; -670; -680) and Commercial General (CG) on the eastern side (APNs -290; -300)

7. **Zoning:**

   Industrial Park

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

   See Section 1.2, Project Description.

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

The Solano County Water Agency offices and the recently approved Vaca Valley Hotel project and associated commercial uses are located immediately adjacent to the north of the project site; miscellaneous industrial uses are located further to the west across Cessna Drive and to the south; undeveloped land is located to the northeast; and a self-storage facility and Interstate-505 (I-505) are located to the east.

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

This MND/IS may be used by responsible agencies and trustee agencies that may have some approval authority over the proposed project (i.e., to issue a permit). The project applicant would obtain all permits, as required by law. The following agencies have been identified as having potential discretionary authority over approval of certain project elements, or alternatively, may serve in a ministerial capacity:

- Solano County Airport Land Use Commission
- Solano Irrigation District
- Solano County LAFCo
- California Department of Fish and Wildlife
- Central Valley Regional Water Quality Control Board
- U.S. Army Corps of Engineers
- Yolo-Solano Air Quality Management District.

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

Pursuant to AB 52, on February 13, 2020, the City sent letters to tribes that have requested to be notified of upcoming projects. The City received a letter from the Yocha Dehe Wintun Nation on March 16, 2020, after the 30-day window in which comments are to be provided. The letter stated that the project site is located within the aboriginal territories of the Yocha Dehe Wintun Nation; however, there are no known cultural resources near the project site. The Yocha Dehe Wintun Nation requested to be contacted in the event new information becomes available or if any cultural resources are found, and also recommended cultural sensitivity training for personnel prior to the start of the project. The letter did not request formal consultation with the City. The City considers consultation with the Yocha Dehe Wintun Nation complete.

3.1 Aesthetics

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

Environmental Setting

The project site is located in the northwestern portion of the City, on Aviator Drive between Cessna Drive and East Monte Vista Avenue. Interstate 505 (I-505) is located approximately 0.2 of a mile east of the project site, and downtown Vacaville is located approximately 3 miles southwest of the project site. The project site is bounded on the north by the recently approved Vaca Valley Hotel project (the site is presently undeveloped), and the Solano County Water Agency offices, to the east by East Monte Vista Avenue and a self-storage facility, and miscellaneous industrial uses to the west and south.

Existing sources of light from street lights and building lights are visible at night from developed areas surrounding the project site. The site is currently undeveloped with no buildings or other on-site structures and consists of bare, exposed dirt, with the exception of a mix of tree species that surround the site along the east, west, and south, and some scattered trees and shrubs present within the site.

The City of Vacaville General Plan does not designate any areas in the City as "scenic vistas," but it does consider views of the Vaca Mountains and views of the Inner Coast Range hillsides as scenic resources that are worthy of preservation. There are no designated State Scenic Highways in Vacaville. Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy LU-P13.1:** Ensure that new commercial development is compatible with the character and scale of existing and planned adjoining land uses.

- **Policy COS-P8.1:** Preserve scenic features and the feel of a city surrounded by open space, and preserve view corridors to the hills and other significant natural areas.

The Business Park Policy Plan (Policy Plan, City of Vacaville 2018) establishes land use regulations, site development standards and performance standards to guide development including standards regarding building design, building height, lot size, landscaping, signage, setbacks and types of uses. Listed below are relevant development standards within the Policy Plan that ensure the project would be designed consistent with the scale, mass, and style of surrounding properties:

- Special character and quality of industrial area architecture and landscape design shall be applied to areas adjacent to Vaca Valley Parkway, East Monte Vista and visible from I-505.
- Placement of a building on a site shall consider such factors as views, vistas, solar orientation, climate, orientation to local streets, freeways and pedestrian circulation routes, access to vehicles and pedestrians, location of public utilities, compatibility with adjacent development and the facility's functional needs. Building design should be harmonious with neighboring structures, to the extent possible, and each design should appear as an integral part of the overall site development concept.
- Developments shall provide site amenities, which enhance the project's appearance or use; these amenities may include enhanced driveway entrances, textured paving for driveways or parking area, entry plazas, walkways, special lighting for accents or focal points, water features and sculptures. Building addresses should be of sufficient size and visibility so as to be easily read by visitors and emergency personnel.
- Building design in Area I is expected to meet high end commercial and business park development design guidelines because of its location as the gateway to the Policy Plan.
    - Building materials and exterior color schemes shall emphasize natural earth tones and natural materials such as wood, concrete, aggregate, stone, brick, or slumpstone.
    - Barn-like metal buildings, untextured, untreated concrete slab tilt-up buildings or buildings which present a monotonous "flat" facade to the street, shall not be permitted.
    - To reduce mass of large buildings and emphasize depth, architectural design of facades shall incorporate canopies, trellises, horizontal elements, corner inserts, pop-outs, reveals, overhangs or other treatments that will give scale and provide visual interest.
    - All primary building and project entries shall be well defined by varied textures, materials, colors and landscaping to afford a sense of entry.
- Area II limits the height of structures within 250 feet of Vaca Valley Parkway and East Monte Vista Avenue to 36 feet, while Area III limits building height to 70 feet.

The project would be required to meet the City's Policy Plan height requirement. The Business Park Policy Plan allows the City Director of Community Development to review and approve exceptions to building height, design, landscaping plans, and similar specifications.

Discussion

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

The General Plan includes relevant goals and policies that would preserve scenic views, including policies requiring protection of view corridors to the hills and other natural areas. The term vista generally implies an expansive view, usually from an elevated point or open area. As described in the City's General Plan,

most of Vacaville's scenic resources are associated with open space, natural resources, and agricultural uses. The proposed project would be located in an area of the City with long-range views of the surrounding hillsides. Public views of the project site are available from East Monte Vista Avenue to the east. Long-range views of surrounding hillsides are visible from public areas and roads surrounding the site due to the flat topography. Although long-range views of hillsides are available in the vicinity of the project site, these views are occasional and limited in duration. Therefore, the project site and immediate vicinity would not be considered a scenic vista.

The proposed project would comply with policies set forth in the City's General Plan and the development standards in the Vacaville-Golden Hills Business Park Policy Plan that protect scenic views. These include building setback requirements and placement of buildings on the site such that public views are not blocked. Currently, the project site is surrounded primarily by commercial and industrial development. The proposed project would not have a substantial adverse effect on a scenic vista or the existing visual character or quality of public views and impacts would be **less than significant**.

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

There are no designated State Scenic Highways within the City. Furthermore, the project site does not contain any scenic resources such as historic buildings or rock outcroppings. The proposed project would have **no impact** on scenic resources along a State Scenic Highway.

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

The City's General Plan designates the project site as General Commercial on the eastern portion and Industrial Park on the western portion, and the site is entirely zoned Industrial Park. Due to the developed nature of the area surrounding the project site, the project is considered to be in an urbanized area. The proposed project has been designed to comply with the City's General Plan policies and Vacaville-Golden Hills Business Park Policy Plan development standards regarding scenic views and features ensuring that new development is consistent with the character and scale of existing and planned adjoining land uses, per General Plan policy LU-P13.1. These development standards include consistency with building design requirements for the project area, which would ensure that project components are consistent with the surrounding scenic character, and compliance with the landscape design requirements for the project area. Thus, there would be **no impact** related to conflict with zoning and other regulations governing scenic quality.

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

All new development in the City is required to comply with standards for light and glare established in Section 14.09.127.110 of the City's Land Use Development Code, which states that all project lighting would be shielded and directed downward to avoid creating a hazard or nuisance to other properties or adversely impact traffic on adjacent streets. The project would install overhead LED lights on 25-foot tall poles within the proposed parking lot area along with exterior building lights. All lighting would be shielded to prevent light spillover onto adjacent areas, in compliance with Section 14.09.127.110. The proposed

project would mostly consist of concrete, with windows only located near pedestrian entrances, similar to typical warehouse and office buildings. Thus, the proposed project would not create a substantial new source of light or glare and there would be a **less than significant** impact.

Mitigation Measures

None required.

3.2 Agriculture and Forestry Resources

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

Environmental Setting

Solano County (County) and the City contain land designated by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) as Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Grazing Land (DOC 2018). According to the General Plan EIR, the City has approximately 199 acres of Prime Farmland and 1,079 acres of non-prime farmland under active Williamson Act contracts and approximately 147 acres of Prime Farmland and 133 acres of non-prime farmland under Williamson Act contracts that are in non-renewal status (City of Vacaville 2013).

The entirety of the site is designated as Other Land under the DOC FMMP, which is not included within the designation of Important Farmlands. The project site does not include an active Williamson Act Contract (City of Vacaville 2013).

According to the Final Administrative Draft Solano Multispecies Habitat Conservation Plan (Draft Solano HCP) (Solano HCP 2012), the inner coast range natural community, which contains grasslands, oak woodland, oak savanna, and mixed chaparral/scrub brush, is located in the primarily on hillsides and agricultural lands in the southwestern and northern portions of the City (City of Vacaville 2015a). There are a few trees on the project site, the majority of which would be removed to accommodate the project. In total, the project is proposing to retain 21 trees along the western, southern, and eastern site boundaries.

California Public Resources Code Section 12220(g) defines "forest land" for the purposes of CEQA as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

California Government Code Section 51104(g) defines "Timber," "Timberland," and "Timberland Production Zone" for the purposes of CEQA as either trees of any species maintained for eventual harvest for forest production purposes ("Timber"); privately owned land, or land acquired for State forest purposes, used for growing and harvesting timber ("Timberland"); or "Timberland Production Zone" which means an area zoned and used for growing and harvesting timber.

Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy COS-P3.1**: Maintain a compact urban form and locate new development to minimize the loss of agricultural and open space resources.
- **Policy COS-P3.2:** Support the preservation of land under Williamson Act contracts within the Vacaville Planning Area.

Discussion

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

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

The proposed project would not convert Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to developed uses. As noted in the environmental setting above, the entire project site is

designated by the DOC FMMP as Other Land, which is not considered Important Farmland. Additionally, the project site is not under a Williamson Act contract and is not designated or zoned as agricultural land. Therefore, the proposed project would not convert Important Farmland to non-agricultural use or conflict with existing zoning for agricultural use or a Williamson Act contract. Thus, no impact would occur.

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

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

The site consists of bare, exposed dirt, with the exception of trees that surround the site along the east, west, and south, and some scattered trees and shrubs present within the site including mature cottonwood, pecan and black walnut trees. The project site is not located in an area where forest and timberland are known to exist. Therefore, the project would not conflict with forestland zoning or result in the loss or conversion of forestland to non-forest uses and **no impact** would occur.

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

The project site is located approximately three miles northeast of downtown Vacaville and is generally surrounded by developed uses. The site is undeveloped and has not been used for agricultural activities for over 40 years. The project site is designated as General Commercial (eastern portion) and Industrial Park (western portion) in the City's General Plan and is zoned Industrial Park. The FMMP does not designate the project site as Important Farmland, the site is not zoned for agricultural uses, and does not contain any forest lands. There are no forestlands in the project vicinity. Therefore, the proposed project would not result in the conversion of land designated as Prime Farmland, Farmland of Statewide Importance or Unique Farmland, or land under active agriculture to non-agricultural use or conversion of forestland to non-forest. Thus, **no impact** would occur.

Mitigation Measures

None required.

3.3 Air Quality

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

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

Environmental Setting

The City is located primarily within the boundaries of the Sacramento Valley Air Basin (SVAB), but a small portion, Lagoon Valley, is located within the San Francisco Bay Area Air Basin (City of Vacaville 2015a, p. COS-30). Mountains surrounding the SVAB create a barrier to air flow, which can trap air pollutants under certain meteorological conditions. These stagnant conditions generally occur with the highest frequency during autumn and early winter (City of Vacaville 2013, p. 4.3-10). Air quality in a majority of the City is monitored and managed by the Yolo Solano Air Quality Management District (YSAQMD) (City of Vacaville 2015a, p. COS-30). The YSAQMD is responsible for establishing programs, plans and regulations enforcing air pollution controls in order to attain all state and federal ambient air quality standards.

Air pollutants of concern in the City include ozone (O_3), carbon monoxide (CO), nitrogen oxides (NO_2 and NO_x), sulfur dioxide (SO_2), and particulate matter ($PM_{2.5/10}$) (City of Vacaville 2015a, p. COS-30). Vehicle use is the primary source of pollutants in the City, which contributes both directly and indirectly to air pollution (City of Vacaville 2015a, p. COS-30). Additional sources of air pollutants include wood smoke from residential fireplaces, construction activities, consumer productions, architectural coatings, fertilizers, asphalt paving, and agriculture operations (City of Vacaville 2013, p. 4.3-15).

Sensitive receptors refer to those segments of the population most susceptible to poor air quality and typically include children, elderly people and sick people, as well as sensitive land uses such as schools, hospitals, parks, and residential communities (City of Vacaville 2015a, p. COS-31). The closest existing sensitive receptors include residential areas 0.4 mile northeast of the site, residential areas 0.6 mile west of the site, and the Kaiser Permanente Medical Offices located 0.9 mile southeast of the site.

Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy COS-P12.3:** Encourage project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that reduce vehicle trips and promote energy efficiency.
- **Policy COS-P12.5:** Require dust control measures as a condition of approval for subdivision maps, site plans, and all grading permits.

Listed below are relevant policies from the Vacaville-Golden Hills Business Park Policy Plan (City of Vacaville 2018a):

- The use of mass transit, carpooling, bicycling, and other options to reduce auto dependency should be encouraged through appropriate design.

YSAQMD is responsible for ensuring air quality pollutants do not create an unhealthy environment in the vicinity by achieving and maintaining healthy air quality in accordance with State and Federal standards listed below under Table 3.3-1.

Table 3.3-1. State and National Air Pollutant Standards

Pollutant	Averaging Time	State Standards	National Standards
Carbon Monoxide	1-Hour 8-Hour	20 ppm 9 ppm	35 ppm 20 ppm
Ozone	1-Hour Annual	0.09 ppm 0.07 ppm	No Standard 0.07 ppm
Nitrogen Dioxide	1-Hour Annual	0.18 ppm 0.03 ppm	0.10 ppm 0.053 ppm
Sulfur Dioxide	1-Hour 24-Hour Annual	0.25 ppm 0.04 ppm No Standard	0.075 ppm 0.14 ppm 0.03 ppm
Fine Particulate Matter ($PM_{2.5}$)	24-Hour Annual	No Standard 12 µg/m	35 µg/m 12 µg/m
Coarse Particulate Matter (PM_{10})	24-Hour Annual	50 µg/m 20 µg/m	150 µg/m No Standard
Sulfates	24-Hour	25 µg/m	No Standard
Lead[2]	30-Day Avg. 3-Month Avg.	1.5 µg/m No Standard	No Standard 0.15 µg/m
Hydrogen Sulfide	1-Hour	0.03 ppm	No Standard
Vinyl Chloride	24-Hour	0.010 ppm	No Standard
Visibility Reducing Particles	Per Kilometer	0.23[1]	No Standard

Sources: YSAQMD Handbook for Assessing and Mitigating Air Quality Impacts.
Notes:
1 In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%.
2 The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
ppm = parts per million
µg/m³ = micrograms per cubic meter

In addition, YSAQMD has established project-level thresholds of significance for coarse particulate matter (PM_{10}), carbon monoxide (CO), and the precursors to ozone, which are reactive organic gases (ROG) and nitrogen oxides (NO_x). The thresholds apply to both construction and operational impacts. These standards are listed in Tables 3.3-2 and 3.3-3.

Discussion

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

The YSAQMD plans applicable to the project include the Sacramento Regional 8-Hour Ozone Attainment Plan and Reasonable Further Progress Plan *and the* 2006 and 2009 Triennial Assessment and Plan Update (City of Vacaville 2013, p. 4.3-18).

The Sacramento Regional 8-Hour Ozone Attainment Plan and Reasonable Further Progress Plan was prepared using population and employment data assumptions based on the City's General Plan adopted in 1990 and amended in 2007 (City of Vacaville 2013 p. 4.3-18). The City's current General Plan did not increase the 2035 population or employment forecast assumptions. Therefore, the General Plan EIR found that implementation of policies in the City's Energy Conservation Action Strategy (ECAS) would reduce the total vehicle miles traveled (VMT) below assumptions in the 2007 General Plan. Development of the project site with industrial uses was assumed in the City's General Plan and ECAS.

The 2006 and 2009 Triennial Assessment and Plan Update includes rules and regulations to reduce emissions from sources that are regulated by YSAQMD including agricultural sources, industrial sources and vehicle emissions (City of Vacaville 2013, p. 4.3-19). The Plan includes commitments to implementing feasible measures to attain emissions reductions including controls on architectural coatings, industrial and commercial boilers, steam generators and heaters, graphic arts, internal combustion engines, and large water heaters (YSAQMD 2010). The General Plan EIR determined that buildout under the General Plan would not conflict with plans adopted for the purpose of reducing air emissions and the impact would be less than significant. The project applicant would comply with applicable General Plan and ECAS policies and the impact would be **less than significant.**

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

The cumulative context of an air pollutant is dependent on the specific pollutant under consideration. For example, O_3 precursors are a regional pollutant; therefore, the cumulative context would be existing and future development within the entire SVAB. This means that O_3 precursors generated in one location do not necessarily have O_3 impacts in that area. Instead, precursors from across the region can combine in the upper atmosphere and be transported by winds to various portions of the SVAB. Consequently, all O_3 precursors generated throughout the SVAB are part of the cumulative context.

According to the YSAQMD *Handbook for Assessing and Mitigating Air Quality Impacts*, projects that would individually exceed the YSAQMD thresholds (annual ROG and NO_x thresholds, or daily PM_{10} thresholds) would also be considered cumulatively considerable and significant.

Construction of the proposed project would result in a temporary increase in air pollutants to the local air shed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling building materials and from construction workers travelling to and from the site. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. Therefore, an increment of day-to-day variability exists.

Pollutant emissions associated with construction activity, specifically ROG, NO_x, PM_{10}, and $PM_{2.5}$ emissions from off-road equipment, fugitive dust, on-road worker vehicle emissions, and vendor delivery trips were quantified using California Emissions Estimator Model (CalEEMod). Daily and annual construction emissions are compared to the applicable YSAQMD thresholds, which are presented in Table 3.3-2 below.

Table 3.3-2. Estimated Daily and Annual Construction Emissions

Year	ROG	NO_x	PM_{10}	$PM_{2.5}$
Daily Emissions (Pounds Per Day)				
2020	7.21	117.99	5.94	2.95
2021	84.03	68.37	3.36	2.29
Maximum Daily	*84.03*	*117.99*	*5.94*	*2.95*
Pollutant Threshold	*NA*	*NA*	*80*	*82*
Threshold Exceeded?	NA	NA	No	No
Annual Emissions (Tons Per Year)				
2020	0.25	3.10	0.15	0.10
2021	0.40	1.65	0.08	0.05
Maximum Annual	*0.40*	*3.10*	*0.15*	*0.10*
Pollutant Threshold	*10*	*10*	*NA*	*NA*
Threshold Exceeded?	No	No	NA	NA

Source: See Appendix A for detailed results.
Notes: The values shown are the maximum summer or winter daily emissions results from CalEEMod. YSAQMD has adopted annual construction thresholds for ROG and NO_x, as well as a daily threshold for PM_{10}. Therefore, because no significance thresholds exist for daily emissions of ROG and NO_x and annual emissions of PM_{10} and $PM_{2.5}$, 'NA' has been inserted under these pollutants.
The SMAQMD threshold for daily $PM_{2.5}$ emissions was also applied to this analysis.
ROG = reactive organic gases; NA = not applicable; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

As shown in Table 3.3-2, daily construction emissions of PM_{10} and $PM_{2.5}$ and annual emissions of ROG and NO_x would not exceed the YSAQMD applicable significance thresholds during any construction year. Therefore, construction impacts would be less than significant.

Operation of the proposed project would generate criteria pollutant (including ROG, NO_x, PM_{10}, and $PM_{2.5}$) emissions from mobile sources (vehicular traffic), area sources (consumer products, landscaping equipment), and energy sources (electrical consumption). CalEEMod was used to estimate daily and annual emissions from project-related operational sources. Table 3.3-3 summarizes the operational emissions from the mobile, energy, and area emissions of criteria pollutants that would be generated from the proposed project. Operational emissions were then compared to the YSAQMD operation thresholds.

Table 3.3-3. Estimated Daily and Annual Operational Emissions

Source	ROG	NO_x	PM_{10}	$PM_{2.5}$
Daily Emissions (Pounds Per Day)				
Area	11.24	<0.01	<0.01	<0.01
Energy	0.30	2.70	0.21	0.21
Mobile	2.98	19.50	10.37	2.86
Maximum Daily	*14.52*	*22.20*	*10.58*	*3.07*
Pollutant Threshold	*NA*	*NA*	*80*	*82*
Threshold Exceeded?	NA	NA	No	No

Table 3.3-3. Estimated Daily and Annual Operational Emissions

Source	ROG	NO_x	PM_{10}	$PM_{2.5}$
Annual Emissions (Tons Per Year)				
Area	2.05	<0.01	<0.01	<0.01
Energy	0.05	0.49	0.04	0.04
Mobile	0.35	2.64	1.38	0.38
Total Emissions	*2.45*	*3.13*	*1.42*	*0.42*
Pollutant Threshold	*10*	*10*	*NA*	*NA*
Threshold Exceeded?	**No**	**No**	**NA**	**NA**

Source: See Appendix A for detailed results.
Notes: The values shown are the maximum summer or winter daily emissions results from CalEEMod. YSAQMD has adopted annual thresholds for ROG and NO_x, as well as a daily threshold for PM_{10}. The SMAQMD threshold for daily $PM_{2.5}$ emissions was also applied to this analysis. Because no significance thresholds exist for daily emissions of ROG and NO_x and annual emissions of PM_{10} and $PM_{2.5}$, 'NA' has been inserted under these pollutants.
Values of "<0.01" indicate that the estimated emissions are less than two decimals.
ROG = reactive organic gases; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

As indicated in Table 3.3-3, operational emissions of ROG, NO_x, PM_{10} and $PM_{2.5}$ would not exceed the daily and annual significance thresholds resulting from development of the proposed project. Therefore, impacts associated with operation would be less than significant.

Overall, the proposed project's construction and operational emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$ would not be considerable; therefore, the proposed project's contribution to an existing cumulative impact would be **less than significant.**

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

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The closest existing sensitive receptors include residential areas 0.4 mile northeast of the site, residential areas 0.37 mile west of the site, and the Kaiser Permanente Medical Offices located 0.65 mile east of the project site.

Toxic Air Contaminants

Toxic air contaminants or TACs, are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health. Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The YSAQMD recommends an incremental cancer risk threshold of 10 in 1 million for stationary sources. YSAQMD does not have a recommended threshold for mobile source emissions. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be diesel particulate matter, emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB air toxic control measures to reduce diesel particulate matter emissions. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, the duration of

proposed construction activities (approximately 8-months, which equates to about 2% of the total 30-year analysis exposure period) would only constitute a small percentage of the total 30-year exposure period. Therefore, the project would result in less-than-significant health risk impacts during construction.

In regards to project operation, the proposed project does not include stationary sources that would emit air pollutants or TACs, such as large boilers or emergency generators. In addition, loading docks of the Building 1 and Building 2 would be located at a sufficient distance away (0.37 mile or 1,954 feet) from the closest residences such that exposure due to any diesel trucks loading/unloading at the facility would be limited. Therefore, project operations would not result in TAC generation from on-site sources during long-term operations and would not result in the creation of a significant health risk at nearby sensitive receptors. Operation of the proposed project would generate criteria air pollutant emissions; however, the proposed project would not exceed the YSAQMD emission thresholds, as shown in Tables 3.3-2 and 3.3-3.

Health Impacts of Criteria Air Pollutants

Volatile Organic Compounds (VOCs) (also referred to as ROG) would be associated with motor vehicles, construction equipment, and architectural coatings; however, project-generated VOC emissions would not result in the exceedances of the YSAQMD thresholds. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, the proposed project would utilize no-VOC architectural coatings. ROG and NO_x are precursors to O_3, for which the YSAQMD is designated as nonattainment with respect to the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) and. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of ROG and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the YSAQMD due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the ROG emissions would occur because exceedances of the O_3 NAAQS and CAAQS tend to occur between May and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, because ROG and NO_x emissions associated with construction and/or operation would not exceed the YSAQMD significance thresholds (as depicted in Tables 3.3-2 and 3.3-3), it is not anticipated that the proposed project would contribute substantially to regional O_3 concentrations and the associated health effects. Impacts are therefore considered less than significant.

As shown in Tables 3.3-2 and 3.3-3, construction and operation of the proposed project would not exceed thresholds for PM_{10} or $PM_{2.5}$ and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or would obstruct the YSAQMD from coming into attainment for these pollutants. Additionally, the proposed project would implement dust control strategies as regulated under YSAQMD Rule 2.5, Nuisance. Therefore, health impacts would be considered less than significant.

Construction and operation of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health impacts that result from NO_2 include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, proposed project construction would be relatively short term, and off-road construction equipment would be operating at various portions of the site and would not be concentrated in one portion of the project site at any one time. In addition, existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Construction of the proposed project would result in a minimal increase in

localized NO_2 emissions and would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Therefore, the proposed project is not anticipated to result in substantial NO_2 emissions or the potential health effects associated with NO_2. Impacts are considered less than significant.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, thereby reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The YSAQMD CEQA Handbook provides the following screening approach, originally developed by the San Joaquin Valley Air Quality Management District, in order to evaluate whether a project would cause a potential CO hotspot at any given intersection (YSAQMD 2007).

- A traffic study for the project indicates that the peak-hour Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to an unacceptable LOS (typically LOS E or F); or
- A traffic study indicates that the project will substantially worsen an already existing peak-hour LOS F on one or more streets or at one or more intersections in the project vicinity. "Substantially worsen" includes situations where delay would increase by 10 seconds or more when project-generated traffic is included.

As provided in the proposed project's Traffic Impact Analysis Memorandum (Omni-Means 2018), the proposed project would not cause an intersection within the vicinity to decline to an unacceptable LOS. Thus, the proposed project's CO emissions would not contribute to the health effects associated with this pollutant. In summary, health impacts of criteria air pollutants would be less than significant.

In summary, the proposed project would not expose sensitive receptors to substantial, long-term pollutant concentrations or health risk during construction or operations, and this impact would be **less than significant** on a project-level and cumulative basis.

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

Odor impacts from future development could result from either locating new sources of odor near existing receptors, or locating new receptors near existing odor sources. Provisions of the California Health and Safety Code Section 41700 prohibits the discharge of anything that could endanger the comfort or health of the public and is enforced by the YSAQMD (City of Vacaville 2013, p. 4.3-30). The project site is not located in proximity to any land uses that could expose people on the project site to objectionable odors. Furthermore, the proposed project would not include uses that produce odors that would impact surrounding properties. Therefore, **no impact** would occur.

Mitigation Measures

None required.

3.4 Biological Resources

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

Environmental Setting

In addition to agricultural lands, the City has three main natural community types: valley floor grassland and vernal pool natural community, inner coast range natural community, and riparian, stream, and freshwater marsh natural community (City of Vacaville 2015a). Vacaville is a member agency for the Draft Solano HCP, which when adopted will implement conservation measures to ensure the protection of threatened and endangered species and their habitat. The Draft Solano HCP was completed in October 2012; however, the HCP has not yet been formally adopted. The City General Plan Policy COS-P1.12 directs that development within the City comply with the HCP's avoidance, minimization and mitigation measures (measures listed in Appendix A to the City General Plan). The

Draft Solano HCP addresses 37 threatened and endangered species and 35 species identified as Special Management Species (City of Vacaville 2015a). The Draft Solano HCP also identifies six key wildlife corridors throughout Solano County, one of which is located in the southern portion of the City in the Vacaville-Fairfield Greenbelt. The Vacaville-Fairfield Greenbelt provides connectivity for a variety of wildlife species between the lowlands of the Jepson Prairie and the uplands of the Vaca Mountains. A portion of the Vacaville-Fairfield Greenbelt is located within the City's Urban Growth Boundary and the General Plan Planning Area in southern Vacaville.

The topography of the project site is relatively flat, sloping gently from approximately 115 feet to 100 feet above mean sea level from the northeast corner to the southwest corner of the site. The site is bounded by some ornamental landscaping, including mature trees, to the east, south, and west. The City requires a tree removal permit to remove or destroy trees that have a diameter of 10 inches or more when measured at breast height (4.5 feet above ground level) within the City. Mature trees with diameters greater than 10 inches, including Mature coast live oaks (*Quercus agrifolia)* occur along East Monte Vista Avenue, Aviator Drive, and Cessna Drive. The interior of the site includes tree species such as Fremont cottonwood (*Populus fremontii*), goldenrain (*Koelreuteria paniculata*), pecan (*Carya illinoinensis*), and black walnut (*Juglans hinsii*), some of which exceed 10 inches diameter at breast height.

A Biological Resources Evaluation (Evaluation) was prepared by Sycamore Environmental Consultants on January 15, 2020, for the project site (Appendix B). The evaluation included review of the California Native Plant Society (CNPS) Online Inventory, California Natural Diversity Database (CNDDB), and U.S. Fish and Wildlife Service's (USFWS) list of threatened and endangered species, as well as results of wildlife, botanical, and wetland surveys to identify potential habitat and special-status species at the project site. The biological and wetland surveys were completed in October 2017 and July 2019, respectively. The evaluation found that the project site was heavily disturbed from the construction of the Putah South Canal in the 1950s and mass grading in the Vacaville Business Park in the late 1980s to early 1990s. The site surveys and review of aerial photographs suggest that vegetation on the site has been continuously managed by methods such as disking, mowing, and herbicides since before 1993. No sensitive biological communities were identified at the site during the 2017 or 2019 surveys. Table 3.4-1 shows the land covers present at the site.

Table 3.4-1. Land Covers in the Project Site

Land Covers	Vegetation Alliances and CDFW Alliance Codes[1]	Acreage[2]
Ruderal/Herbicide-treated	-	27.26
Landscaping	-	2.48
Stormwater Detention Basin	-	0.75
	Total:	30.49

Source: Appendix B.

1 Communities in the project site lack vegetation or are dominated by nonnative plants and therefore lack recognized vegetation alliances.

2 Acreages were calculated using ArcMap functions.

No wetlands were found within the project site. A manmade stormwater detention basin is present along with erosional features that convey stormwater runoff into the detention basin. The largest of these erosional features is approximately 2-3 feet wide, 6 inches deep, and occurs in two distinct sections approximately 400 feet long each. The erosional features do not receive water from any potentially jurisdictional features, contain little vegetation, and drain only to the stormwater detention basin. The stormwater detention basin consists of approximately 0.75 acre and is between 6 to 12 inches in depth when inundated. When the stormwater detention basin fills, the water flows east across a concrete spillway and into two storm drain inlets near East Monte Vista Avenue. The detention

basin does not contain any wetland vegetation. Neither the erosional features nor the detention basin were considered potentially jurisdictional wetlands.

One white-tailed kite was observed flying over the site on October 3, 2017. Otherwise, no special-status species were observed on the project site during surveys conducted in 2017 and 2019. No CNDDB records of special-status species overlap the site, and the citizen-science portal eBird does not record any sightings of Swainson's hawk, burrowing owl, white-tailed kite, or Northern harrier within 500 feet of the site. No vernal pools, elderberry shrubs, habitat for listed amphibians, wetlands, or riparian habitat were identified in or near the survey area. Due to the highly disturbed nature of the site, the site does not provide habitat for any special-status plants.

Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy COS-P1.4** Continue to protect mature trees and existing native non-agricultural trees.
- **Policy COS-P1.5:** Require new development proposals to provide baseline assessments prepared by qualified biologists. The assessment shall contain sufficient detail to characterize the resources on, and adjacent to, the development site. The assessment shall also identify the presence of important and sensitive resources, such as wetlands, riparian habitats, and rare, threatened, or endangered species affected by the development.
- **Policy COS-P1.6:** Require new development to minimize disturbance of natural habitats and vegetation. Require revegetation of disturbed natural habitat areas with native or non-invasive naturalized species.
- **Policy COS-P1.7:** Encourage new development to incorporate native vegetation into landscape plans.
- **Policy COS-P1.12:** Until the Solano Habitat Conservation Plan (HCP) is adopted, comply with all of the Avoidance, Minimization, and Mitigation Measures listed in the Draft Solano HCP (see Appendix A of the HCP for a list of the Avoidance and Minimization Measures that are applicable to Vacaville). In addition, require that development projects provide copies of required permits, or verifiable statements that permits are not required, from the California Department of Fish and Wildlife (2081 Individual Take Permit) and US Fish and Wildlife Service (Section 7 Take Authorization) prior to receiving grading permits or other approvals that would permit land disturbing activities and conversion of habitats or impacts to protected species. In cases where environmental review indicates that such permits may not be required, the Community Development Director may establish time limits of not less than 45 days from the submission of an adequate request for concurrence response from an agency. If the agency has not responded, or requested a time extension of no more than 90 days to complete their assessment, within the established timeframe, applicable grading permits or other authorizations may be provided, subject to other City requirements and review. However, the City's issuance of grading permits or other authorizations does not absolve the applicant's obligations to comply with all other State and federal laws and regulations.

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

As described in the environmental setting above, the disturbed land cover types present on the site do not provide suitable habitat for special-status plant species known to occur in the region. Therefore, no impacts to special-status plant species are anticipated to occur. However, the project site may provide nesting and/or foraging habitat for special-status bird species, as well as native birds protected by the federal Migratory Bird Treaty Act and the California Fish and Game Code. Therefore, impacts to sensitive species would be potentially significant. An overview of the special-status species with potential to occur is included below.

Swainson's Hawk (*Buteo swainsoni* – State Threatened): The evaluation determined that the project site provides potential foraging habitat for Swainson's hawk, but does not provide potential nesting habitat. The closest record of a recently active (within the last 5 years) Swainson's hawk nest occurs approximately 0.26 mile north of the survey area along Cotting Lane. The last nesting activity associated with the record was observed in 2016. No potential Swainson's hawk nest or nesting activity was observed at this nest tree during biological surveys in October 2017, July 2019, or March 2020, conducted by Sycamore Environmental Consultants. Other CNDDB records for Swainson's hawk nests occur over a mile away from the survey area to the south and east.

Burrowing Owl (*Athene cunicularia* – CDFW Special Concern): No burrowing owls or potentially occupied burrows were observed in or near the survey area during the October 2017 and July 2019 biological surveys. The site provides marginal nesting and foraging habitat for burrowing owl due to the lack of herbaceous vegetation. However, burrowing owls are known to occur in the area. Several owls have been observed locally by Sycamore Environmental biologists in the past, including one burrowing owl in a burrow under the sidewalk along the north side of Aviator Drive in 2011. This previously occupied burrow was not documented as being used during the 2017 or 2019 surveys, but potentially suitable burrows were still present along the north side of Aviator Drive in 2017. The CDFW (2012) survey guidelines define occupied sites as burrows where a burrowing owl has been observed occupying a burrow, or a sign of a burrowing owl has been observed as a burrow, within the last three years.

White-tailed Kite (*Elanus leucurus*; CDFW Fully Protected) and Northern Harrier (*Circus cyaneus*, CDFW Special Concern): One white-tailed kite was observed flying over the project site during the October 2017 biological survey. No northern harriers were observed during the biological surveys. No potential raptor nests were observed in or within 250 feet of the project site. While these raptors may forage in the project area, they would not be expected to nest based on a lack of habitat. Typically, white-tailed kites nest in groves of riparian trees. Northern harriers may nest on the ground, typically around marsh habitat. The nearest CNDDB record for white-tailed kite is approximately 1.5 miles southeast, and the nearest CNDDB record for northern harrier is over 5 miles to the southwest.

Migratory Birds and Birds of Prey: Birds regulated under either the federal Migratory Bird Treaty Act (MBTA) or under State Fish and Game Code (FGC) could nest in the project site and vicinity (Sycamore Environmental 2020). Depending on the species, birds may nest on trees, shrubs, in or on the ground, and on artificial structures such as buildings, poles, and signs. Construction could impact nesting birds by destroying a nest or causing abandonment prior to the fledging of young.

Vernal Pool Branchiopods (*Branchinecta conservatio* – Federal Endangered; *B. lynchi* –Federal Threatened; *Lepidurus packardi* – Federal Endangered): Surveys of wetland features on the project site were conducted by Sycamore Environmental in accordance with the USFWS Survey Guidelines for the Listed Large Branchiopods in November 2017. Federally listed vernal pool branchiopods do not occupy any portion of the project site based on USFWS protocol survey results.

Inclusion of Mitigation Measures BIO-1, BIO-2 and BIO-3 would address potential impacts related to burrowing owls and Swainson's hawks, respectively. With implementation of mitigation impacts to these protected species would be reduced to **less-than-significant with mitigation**.

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

The project site does not include any riparian areas or sensitive natural communities, as described in the evaluation for the project site (Appendix B). Therefore, **no impact** would occur.

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

No potential Clean Water Act (CWA) jurisdictional wetlands or waters occur in the project area. A manmade stormwater detention basin is present along with erosional features that convey stormwater runoff to the detention basin. The erosional features do not receive water from any potentially jurisdictional features, contain little vegetation, and drain to the stormwater detention basin. The detention basin does not contain any wetland vegetation. Neither the erosional features nor the detention basin were considered potentially jurisdictional wetlands in the Evaluation. Thus, there would be **no impact**.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Due to the developed nature of the surrounding area (including roads and adjacent structures) and the lack of biological resources on the site (Appendix B), the project site does not function as a wildlife corridor. Therefore, impacts would be **less than significant**.

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

The project site is characterized by the predominance of bare ground, with scattered shrubs and trees within the site as well as bounding the western, southern, and eastern borders. Chapter 14.09.131 (Tree Preservation Ordinance) of the City's municipal code regulates development around trees within the City. Some of these trees are proposed to be removed from the project site, and the project applicant would comply with the City's Tree Preservation Ordinance. The applicant would obtain a tree removal permit to remove or destroy trees that have a diameter of 10 inches or more when measured at breast height. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, and impacts would be **less than significant**.

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

Although the Draft Solano HCP is not an adopted habitat conservation plan, the City's General Plan referenced the Draft Solano HCP to develop goals, policies and actions consistent with the HCP (City of Vacaville 2013). The General Plan includes policies to support the efforts to prepare and implement the HCP, specifically, action COS-A1.1, which directs the City to adopt and implement the requirements of the Draft Solano HCP. The proposed project would not conflict with the Draft Solano HCP since the project would comply with General Plan and HCP policies. Therefore, **no impact** would occur.

Mitigation Measures

Mitigation Measure BIO-1 includes avoidance and minimization efforts related to nesting birds. These measures are consistent with preconstruction survey measures for Swainson's hawk, burrowing owl, and other nesting birds in the Draft Solano HCP. Mitigation Measures BIO-2 and BIO-3 require pre-construction surveys to address potential impacts related to burrowing owls and Swainson's hawks, respectively. Compliance with these mitigation measures would reduce the potential impact to less than significant.

Mitigation Measure BIO-1: Nesting Birds. The following avoidance and minimization efforts are proposed to avoid and minimize impacts to nesting birds. These measures are compatible with preconstruction survey measures for nesting birds in the Solano HCP (SCWA 2012).

Pre-Construction Survey:

a) If construction begins outside the February 15 to September 15 nesting season (or until the young have fully fledged and are feeding independently), there shall be no need to conduct a preconstruction survey for active nests.
b) If construction or vegetation removal begins between February 15 and September 15, a biologist shall conduct a survey for active raptor nests within 500 feet, and other active nests within 100 feet of the project site from publicly accessible areas within 15 days prior to construction. If a lapse in project-related construction work of 15 days or longer occurs, another survey shall be required. The measures listed below shall be implemented based on the survey results.

No Active Nests Found: If no active nest of a raptor, MBTA-protected bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.

Active Nests Found: If active nests are identified the following shall be required:

a) A 250-foot wide Environmentally Sensitive Area (ESA) shall be established around an active bird of prey nest (other than Swainson's hawk or burrowing owl). A 50-foot wide Environmentally Sensitive Area (ESA) shall be established around an active nest of other protected birds.
b) No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active.
c) Construction buffers may be reduced from the above-stated distances, upon approval of the City and CDFW, in accordance with the following requirements:
    i) A site-specific analysis prepared by an approved biologist indicates that the nesting birds would not be adversely affected by construction activities.
    ii) Monitoring by the approved biologist is conducted for a sufficient time (minimum of 10 consecutive days following the initiation of construction), and the nesting birds do not exhibit adverse reactions to construction activities (e.g., changes in behavioral patterns, reactions to noise).
    iii) Regular monitoring is continued through the nesting/wintering cycle at that site, and no change in nesting bird behavior is observed.
    iv) Monitoring reports are submitted to the City and CDFW.

v) If adverse effects are identified, construction activities shall cease immediately and construction shall not be resumed until the approved biologist, in consultation with the City and CDFW, has determined that construction may continue under modified restrictions or that nesting activity is complete.

Mitigation Measure BIO-2: Burrowing Owl

a) Between February 1 and August 31, a qualified biologist shall conduct pre-construction surveys in known or suitable habitat areas to identify and subsequently avoid nesting areas for burrowing owls. An initial pre-construction survey shall be conducted within 14 days of the anticipated start of construction, followed by a second survey within 24 hours of the start of construction. All surveys shall follow standard CDFW protocols. If a lapse in project-related construction work of 14 days or longer occurs during the nesting season, an additional pre-construction survey shall be required within 24 hours before project work may be reinitiated.

b) If burrowing owls or suitable nesting habitat are identified on site during the initial pre-application surveys, the applicant shall allow vegetation to grow over the entire project site (except for required fuel breaks) to a height of 36 inches or more above the ground, unless impracticable due to surrounding or adjacent land uses. The increased vegetation height, if in place by the beginning of the nesting season (e.g., retention of previous year's growth or planting during the previous winter), will discourage burrowing owl use of the site. During the non-breeding season (September 1 through January 31), a circular exclusion zone with a radius of 160 feet shall be established around occupied burrows.

c) During the breeding season (February 1 through August 31), a qualified biologist shall establish a circular exclusion zone with a radius of 250 feet around each occupied burrow. No construction-related activity (e.g., site grading, staking, surveying, or any use of construction equipment) shall occur in the exclusion zone during the breeding season.

d) Construction buffer widths may be reduced from the 250-foot wide breeding season buffers and 160-foot wide non-breeding season buffers in accordance with the following requirements:

   1. A site-specific analysis prepared by a qualified biologist indicates that the nesting pair(s) or wintering owl(s) would not be adversely affected by construction activities. The City and CDFW must approve this analysis in writing before construction can proceed.
   2. Monitoring by a qualified biologist is conducted for a sufficient time (during all construction activities for a minimum of ten consecutive days following the initiation of construction), the nesting pair does not exhibit adverse reactions to construction activities (e.g., changes in behavioral patterns or reactions to noise), and the burrows are not in danger of collapse due to equipment traffic.
   3. Monitoring is continued at least once a week through the nesting/wintering cycle at that site, and no change in behavior by the owls is observed. This longer-term monitoring may be reduced to a minimum of 2 hours in the morning and 2 hours in the afternoon during construction activities; however, additional and more frequent monitoring may be required if any adverse reactions are noted.
   4. Monitoring reports are submitted to City and CDFW.

e) If the Project will result in the permanent loss of burrowing owl nesting and/or foraging habitat (i.e., the preconstruction surveys document an occupied burrow), then permanent protection

of suitable burrowing owl habitat shall occur. Permanent protection can be accomplished through purchase of suitable land, establishment of a conservation easement or other long-term protection mechanisms. Mitigation ratios for project impacts shall be determined based on recommendations in the CDFW Staff Report, and in coordination with CDFW, but shall consider owl population, natal characteristics, foraging area and quality, dispersal characteristics and other factors influencing the site. Given the limited habitat value on the project site, the project shall mitigate for the permanent loss of burrowing owl habitat at a minimum ratio of 0.5:1 (0.5 acres of mitigation land for each 1 acre of permanent impact to burrowing owl habitat). Mitigation lands obtained to satisfy Swainson's hawk mitigation may be used to satisfy this requirement.

f) In addition to natural habitat, burrowing owls may also use construction debris as nest and perch sites. Consequently, any remnants of abandoned building materials present on the Project area should be included in the survey area.

g) If passive relocation is being considered, an Exclusion Plan shall be developed according to Appendix E of the CDFW Staff Report and submitted to CDFW for review prior to project implementation.

Mitigation Measure BIO-3: Swainson's Hawk

All surveys and analysis of potential impacts to Swainson's Hawks shall be done in accordance with Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (TAC 2000).

a) Between March 1 and August 311, a qualified biologist shall conduct pre-construction surveys to identify and subsequently avoid nesting areas for Swainson's hawk. Surveys shall be conducted within 15 days of the anticipated start of construction, and shall be designed and of sufficient intensity to document nesting within 0.25 mile (1,320 feet) of planned work activities. If a lapse in project-related construction work of 15 days or longer occurs, additional pre-construction surveys shall be required before project work may be reinitiated.

b) The results of the survey shall be submitted to the City and CDFW. If active nests are found during pre-construction surveys, a 1,320-foot initial temporary nest resource protection buffer shall be established. The protective buffer shall remain in place until the biologist determines that the young have fledged and the nest is no longer active.

c) If project-related activities within the temporary nest resource protection buffer are determined to be necessary during the nesting season, then a qualified biologist shall monitor the nest and consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest resource protection buffer if Swainson's hawk is not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only in coordination with CDFW. The qualified biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot resource protection buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior.

d) If a nest tree becomes occupied by Swainson's hawk during ongoing construction activities, construction activities shall not occur within 500 feet of the nest, except where monitoring consistent with the criteria above documents that adverse effects will not occur.

e) For projects within one mile of an active nest tree (see Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley, CDFW 1994, which defines an active nest as used during one or more of the last five years), that provide one-acre of land through purchase of credits or an off-site conservation easement of suitable Swainson's hawk foraging habitat (as determined by CDFW) for each acre of development authorized (1:1 ratio). If Swainson's hawks are observed attempting to nest in the eucalyptus tree on Cotting Lane preceding development, the applicant shall conduct a follow-up survey prior to construction to determine if the nest is active. If it is, the applicant shall mitigate at a 1:1 ratio, as described above. If the nest is found to not be active and there are no other active nests within 1 mile, the applicant shall mitigate at a 0.75:1 ratio.

f) For projects within five miles of an active nest tree, but greater than one-mile from the nest tree, provide 0.75 acre of land (through purchase of credits or an off-site conservation easement) for each acre of development authorized (0.75:1 ratio).

g) For projects within 10 miles of an active nest tree, but greater than 5 miles from an active nest tree, provide 0.5 acre of land (through purchase of credits or an off-site conservation easement) for each acre of development authorized (0.5:1 ratio).

3.5 Cultural Resources

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

Environmental Setting

A Cultural Resources Inventory Report (Report) was completed for the project site by Solano Archaeological Services (SAS) in February 2020, with the intent of identifying any potential impacts to prehistoric or historic resources. A copy of the report is included in Appendix C. The Report documents the results of a search of the California Historical Resources Information System at the Northwestern Information Center (NWIC), located on the campus of Sonoma State University, a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, and an intensive pedestrian survey of one parcel (APN 133-210-710) using 15 meter or narrower transects. The remaining parcels of the site were previously surveyed by SAS in March 2018, and were re-surveyed with wider 30 meter transect spacing. One parcel (APN 133-210-710) was not included as part of the project during the time of the previous survey, and thus was subject to a more intensive survey. No buildings or structures are present on the site.

No cultural resources were identified within the project site through the records search, NAHC Sacred Lands File search, or intensive pedestrian survey. All of the parcels contained dried water channels created from rapid erosion events after recent storms and all parcels had extensive river cobbles of multiple stone material types scattered throughout. These river cobbles were often used by Native Americans for tool production; however, none of the observed cobbles had evidence of cultural use. SAS did not identify any pre-contact or historic-era sites or isolates within the project area. Intensive archaeological surveys in 2018 and 2020 did not identify any previously unrecorded cultural resources.

Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy COS-P6.1:** Consult with those Native American Tribes with ancestral ties to the Vacaville city limits regarding proposed new development projects and land use policy changes.
- **Policy COS-P6.2:** Require that a records search of California Historical Resources Information System be conducted and reviewed by cultural resources professional for proposed development areas to determine whether the site contains known prehistoric or historical cultural resources and the potential for as-yet undiscovered cultural resources.
- **Policy COS-P6.3:** Require that areas found to contain significant historic or prehistoric artifacts be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation.
- **Policy COS-P6.4:** Require that if cultural resources, including archaeological or paleontological resources, are uncovered during grading or other on-site excavation activities, construction shall stop until appropriate mitigation is implemented.
- **Policy COS-P6.5:** Require that any archaeological or paleontological resources on a development project site be either preserved in their sites or adequately documented as a condition of removal. When a development project has sufficient flexibility, avoidance and preservation of the resource shall be the primary mitigation measure, unless the City identifies superior mitigation. If resources are documented, coordinate with descendants and/or stakeholder groups, as warranted.
- **Policy COS-P6.6:** Treat human remains discovered during implementation of public and private projects within the city with respect and dignity.

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

The project site does not contain any buildings or structures and has never been developed, according to the Cultural Resources Inventory Report completed for the project site (Appendix C). Since the area has never been developed, there is a low probability that buried historic-era features such as structural remnants or refuse deposits are present within the project site. No cultural resources were identified within the project site through the CHRIS records search conducted at the NWIC, NAHC Sacred Lands File search, or pedestrian surveys. As the project site does not contain any identifiable historical resources, nor is it located near an identified historical resource, impacts to historical resources would not occur. Thus, **no impact** would occur.

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

The Report noted that no pre-contact or historic-era sites or isolates were found within the project area. Intensive archaeological surveys in 2018 and 2020 did not identify any previously unrecorded cultural

resources. However, all of the parcels contained dried water channels and extensive river cobbles of multiple stone material types scattered throughout, those of which were often used by Native Americans for tool production. None of the observed cobbles had evidence of cultural use. Nonetheless, in compliance with Policy COS-P6.3, Mitigation Measure CUL-1 is proposed to ensure that areas found to contain significant historic or prehistoric artifacts be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation. With implementation of Mitigation Measure CUL-1, impacts related to unknown archaeological resources would be **less-than-significant with mitigation.**

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

Although no human remains were recorded or detected on the project site during the intensive pedestrian survey, NAHC Sacred Lands File search, or the CHRIS records search, project construction and ground-disturbing activities have the potential to uncover and impact previously unrecorded human remains. The project would comply with Health and Safety Code Section 7050.5, which requires that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify NAHC within 24 hours of this identification. Compliance with this existing law and Mitigation Measure CUL-2 would ensure impacts would be **less-than-significant with mitigation**.

Mitigation Measures

Mitigation measures CUL-1 through CUL-2 would ensure the project would not result in an impact to subsurface pre-historic resources or human remains. Compliance with the mitigation measures below would ensure the project's impact to cultural resources is mitigated to less than significant.

Mitigation Measure CUL 1: All construction crews shall be alerted to the potential to encounter archaeological, including pre-historic and historic-era material. In the event that cultural resources (sites, features, artifacts, or fossilized material) are exposed during construction activities for the project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified specialist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether additional study is warranted. The qualified specialist may adjust this buffer as needed to provide for protection of the unanticipated resource will allowing for ongoing work in the vicinity. Prehistoric archaeological deposits may be indicated by the presence of discolored or dark soil, fire-affected material, concentrations of fragmented or whole shell, burned or complete bone, non-local lithic materials, or the characteristic observed to be atypical of the surrounding area. Common prehistoric artifacts may include modified or battered lithic materials; lithic or bone tools that appeared to have been used for chopping, drilling, or grinding; projectile points; fired clay ceramics or non-functional items; and other items. Historic-age deposits are often indicated by the presence of glass bottles and shards, ceramic material, building or domestic refuse, ferrous metal, or old features such as concrete foundations or privies. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may simply record the find and allow work to continue. The feasibility of avoidance and preservation in place of any identified resource will also be given consideration during this initial assessment. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery

may be warranted. All generated resource forms and associated reports will be submitted to the Northwest Information Center (NWIC) once completed.

Mitigation Measure CUL-2: If any human remains are found, the City and Solano county coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the county coroner has determined the appropriate treatment and disposition of the human remains. If the City or county coroner determines that the remains are believed to be Native American, he or she shall notify the Native American Heritage Commission (NAHC) within 24 hours.

3.6 Energy

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

Environmental Setting

Pacific Gas and Electric Company (PG&E) provides gas and electricity services in unincorporated Sonoma County (PG&E 2014). PG&E provides electric services to 5.4 million customers, including 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines over a 70,000-square-mile service area that includes in Northern California and central California (PG&E 2019). According to the California Energy Commission (CEC), approximately 103,016 GWh of electricity were used in PG&E's service area in 2018 (CEC 2019a). As of 2018, approximately 4,823 million therms of natural gas were used in PG&E's service area per year (CEC 2019b)

Transportation accounts for the majority of California's total energy consumption. There are more than 35 million registered vehicles in California, and those vehicles consume an estimated 16 billion gallons of fuel each year (CEC 2020; DMV 2019). Gasoline and other vehicle fuels are commercially provided commodities. Petroleum currently accounts for approximately 97% of California's transportation energy consumption (CEC 2020). However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce the number of vehicle miles traveled (VMT).

On August 11, 2015, the City adopted its Energy and ECAS. The ECAS serves as a strategic tool to reduce greenhouse gas emissions and ensure efficient use of the City's resources, including energy resources. The ECAS provides guidance to increase energy independence, reduce spending on gas, electricity, and water, and improve air quality from non-City operations (City of Vacaville 2015b). Along with the ECAS, the City's General Plan includes several goals and policies that pertain to energy resources and consumption within the City.

Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy COS-P9.8:** Promote green building practices in new development.
- **Policy COS-P11.1:** Require that new development incorporate energy-efficient design features for HVAC, lighting systems, and insulation that exceed Title 24.
- **Policy COS-P11.2:** Require that site and structure designs for new development promote energy efficiency.

Listed below are relevant policies from the Vacaville-Golden Hills Business Park Policy Plan (City of Vacaville 2018a):

- Site planning, building design, and construction, shall consider all feasible energy conservation techniques and utilize life cycle costing which considers initial costs, as well as long-term operational costs. Landscaping shall be provided in accordance with the City's Water Efficient Landscape Regulations.

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

Electricity

Construction Use

Temporary electric power for as-necessary lighting and electronic equipment would be provided by PG&E. The amount of electricity used during construction would be minimal, because typical demand would stem from electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, proposed project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity. Impacts would be less than significant.

Operational Use

Project operation would require electricity for multiple purposes including building heating and cooling, lighting, appliances, electronics, and water and wastewater conveyance. The estimation of operational building energy was based on the CalEEMod generated annual electricity consumption estimate of 5,210,833 kilowatt-hours (kWh). Supply, conveyance, treatment, and distribution of water for the project would also require the use of electricity. Similarly, wastewater generated by the proposed project would require the use of electricity for conveyance and treatment. Water consumption estimates for both indoor (125,046,080 gallons per year) and outdoor (4,466,280 gallons per year) water use were generated from CalEEMod default values, and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod. Table 3.6-4, presents the electricity demand for the project.

Table 3.6-4. Project Operations – Electricity Demand

Project	kWh/year
General Light Industry	4,518,577.00
Water/Wastewater	692,256.32
Total	5,210,833.32

Source: Appendix A
Notes: kWh = kilowatt-hour.

For comparison, electricity demand for Solano County in 2018 was 3,243 million kWh (CEC 2018a). The proposed project would result in a minimal increase in electricity consumption and would be inherently energy efficient by implementing measures such as incorporation of efficient lighting, managing water usage, and optimizing energy performance and controls consistent with California Green Building Standards Code (CALGreen). Impacts related to operational electricity use would therefore be less than significant.

Natural Gas

Construction Use

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below. Any minor amounts of natural gas that may be consumed as a result of project construction would be temporary and negligible and would not have an adverse effect; therefore, proposed project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas. Impacts would be less than significant.

Operational Use

Natural gas consumption during operation would be required for various purposes, including building heating and cooling. For building consumption, default natural gas generation rates in CalEEMod for the proposed project land uses and climate zone were used. Table 3.6-5, presents the natural gas demand for the proposed project

Table 3.6-5. Project Operations – Natural Gas Demand

Project	kBtu/year
General Light Industry	10,053,857.00

Source: Appendix A
Notes: kBtu = thousand British thermal units.

As shown in Table 3.6-5, the project would consume approximately 10,053,857 thousand British thermal units (kBtu) per year. For comparison, in 2018 PG&E delivered approximately 243 million therms (24.3 billion kBtu) to Solano County (CEC 2018b). The proposed project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains additional energy measures that are applicable to proposed project under the CALGreen. Overall, due to the inherent increase in efficiency of building code regulations, as well as the proposed project's commitment to sustainability through incorporation of measures such as white roof to reduce heat island effect and air conditioning demands, the proposed project would not result in a wasteful use of energy. Impacts related to operational natural gas use would be less than significant.

Petroleum

Construction Use

Heavy-duty construction equipment associated with construction activities would rely on diesel fuel, as would haul and vendor trucks involved in delivery of materials to the project site. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered light-duty vehicles.

Heavy-duty construction equipment of various types would be used during each phase of project construction. Appendix A lists the assumed equipment usage for each phase of construction. The project's construction equipment is estimated to operate a total combined 11,472 hours.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO_2) emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2019). The estimated diesel fuel usage from construction equipment is shown in Table 3.6-6.

Table 3.6-6. Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO_2 (MT)	Kg CO_2/Gallon	Gallons
Demolition	5	8.56	10.21	838.32
Trenching	2	8.88	10.21	869.25
Building Construction	8	547.16	10.21	53,590.81
Paving	4	18.23	10.21	1,785.56
Architectural Coatings	4	1.77	10.21	173.39
			Total	57,257.33

Sources: Pieces of equipment and equipment CO_2 (Appendix A); kg CO_2/Gallon (The Climate Registry 2019).
Notes: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.

Fuel estimates for total worker, vendor, and haul truck fuel consumption are provided in Table 3.6-7.

Table 3.6-7. Construction Worker, Vendor, and Haul Truck Petroleum Demand

Phase	Trips	Vehicle MT CO_2	Kg CO_2/ Gallon	Gallons
Worker Vehicles (Gasoline)				
Demolition	80	0.40	8.78	45.38
Trenching	44	0.22	8.78	24.95
Building Construction	978	4.80	8.78	547.11
Paving	110	0.53	8.78	60.22
Architectural Coatings	24	0.12	8.78	13.13
			Total	690.79
Vendor Trucks (Diesel)				
Demolition	20	0.32	10.21	31.56

Table 3.6-7. Construction Worker, Vendor, and Haul Truck Petroleum Demand

Phase	Trips	Vehicle MT CO_2	Kg CO_2/ Gallon	Gallons
Trenching	22	0.35	10.21	34.71
Building Construction	18,908	303.52	10.21	29,727.86
Paving	66	1.05	10.21	103.19
Architectural Coatings	0	0.00	10.21	0.00
			Total	29,897.33
Haul Trucks (Diesel)				
Demolition	3,750	36.24	10.21	3,549.54
Trenching	4	0.04	10.21	3.79
Building Construction	0	0.00	10.21	0.00
Paving	40	1.54	10.21	150.56
Architectural Coatings	0	0.00	10.21	0.00
			Total	3,703.89

Sources: Trips and vehicle CO_2 (Appendix A); kg CO_2/Gallon (The Climate Registry 2019).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

In summary, construction of the project is conservatively anticipated to consume 91,549.33 gallons of petroleum over a period of approximately 18 months. For comparison, approximately 14 billion gallons of petroleum will likely be consumed in California over the course of the proposed project's construction phase, based on the California daily petroleum consumption estimate of approximately 78.6 million gallons per day (EIA 2019). Overall, because petroleum use during construction would be temporary, and would not be wasteful or inefficient, impacts associated with construction activities would be **less than significant**.

Operational Use

The fuel consumption resulting from the proposed project's operational phase would be attributable to employees and delivery trucks traveling to and from the project site. Petroleum fuel consumption associated with motor vehicles traveling to and from the project site during operation is a function of VMT. As shown in Appendix A, the annual VMT attributable to the proposed project is expected to be 3,622,017 VMT per year. Similar to construction worker and truck trips, fuel consumption for operation is estimated by converting the total CO_2 emissions from VMT to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Based on the default CalEEMod vehicle mix and the countywide proportion of gasoline and diesel on-road vehicle VMT, the vehicles associated with project operations would likely be approximately 92% gasoline powered and 8% diesel powered vehicles. The estimated fuel use from vehicles traveling to and from the project site during operation is shown in Table 3.6-8.

Table 3.6-8. Project Operations – Petroleum Consumption

Fuel	Vehicle MT CO_2	kg CO_2/Gallon	Gallons
Gasoline	1,583.99	8.78	180,409.37
Diesel	131.03	10.21	12,833.53

Source: Appendix A
Notes: CO_2 = carbon dioxide; kg = kilogram; MT = metric ton.

As depicted in Table 3.6-8, project operation would result in approximately 193,243 gallons of petroleum fuel usage per year. This is a conservative estimate, since it does not account for usage of electric vehicles (EVs). By comparison, California as a whole consumes approximately 28.7 billion gallons of petroleum per year (EIA 2019).

Over the lifetime of the proposed project, the fuel efficiency of employee and customer vehicles is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, the California Air Resources Board has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emissions vehicles in California (CARB 2013). Additionally, in response to SB 375, CARB adopted the goal of reducing per-capita GHG emissions from 2005 levels by 10% by 2020, and 19% by 2035 for light-duty passenger vehicles in the planning area for the Association of Bay Area Governments. As such, operation of the proposed project is expected to use decreasing amounts of petroleum over time due to advances in fuel economy.

In summary, although the proposed project would increase energy use, the use would be a small fraction of the statewide use and, due to efficiency increases, is expected to diminish over time (particularly with respect to petroleum). Given these considerations, energy consumption associated with project construction and operation would not be considered inefficient or wasteful and would result in a **less than significant impact.**

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

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically (every 3 years) to incorporate and consider new energy efficiency technologies and methodologies. Title 24 also includes Part 11, CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals. The proposed project would meet Title 24 and CALGreen standards to reduce energy demand and increase energy efficiency. Furthermore, the proposed project would include light emitting diode (LED) lighting, bicycle parking to support fewer auto trips, infrastructure for future electronic vehicle (EV) chargers, and a white roof to reduce heat island effect and air conditioning demands. The proposed project would also reduce water consumption through the installation of smart landscape irrigation controllers and efficient distribution systems.

Overall, the proposed project would not conflict with existing energy standards and regulations; therefore, impacts during construction and operation of the proposed project would be **less than significant**.

Mitigation Measures

None required.

3.7 Geology and Soils

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

Environmental Setting

A Geotechnical Engineering Report (Geotechnical Report) was prepared for the project site by Mid Pacific Engineering (MPE) in December 2017, with the exception of one parcel (APN 133-210-710). This parcel (APN 133-210-710) was not included as part of the proposed project at the time of report preparation, and thus was not evaluated in the Geotechnical Report. MPE conducted a site reconnaissance; a review of available geologic, seismic, soil, groundwater data and maps, including historic Google Earth images; a subsurface investigation, including the drilling and sampling of 12 soil borings; and laboratory testing and engineering analysis of site soils (see Appendix D).

The project site is located near the eastern boundary of the Coast Ranges geomorphic province of California. The Coast Ranges are a series of northwest-trending mountain ranges and valleys, generally parallel to the San Andreas Fault. Based on the United Stated Geological Survey (USGS) Preliminary Geologic Map of Solano County and Parts of Napa, Contra Costa, Marin, and Yolo counties, California (Helley and Sims, 1973), the site is underlain by Pliocene-aged Tehama Formation and the Quaternary-age older alluvium. The Tehama formation consists of poorly consolidated siltstone, sandstone, tuff, and conglomerate, while the older alluvium deposits consist of sand, silt, clay, and gravel deposited from steam and river systems that drain the Coast Ranges and Sierra Nevada. The surface and near-surface soils generally consist of stiff clays and silts. Based on the stiff and dense nature of the site soils and anticipated depth the groundwater, MPE determined that the potential for liquefaction at the site is low. The site is also not located within a State Designated Seismic Hazard Zone for liquefaction (DOC 2015). However, MPE determined that a major portion of the on-site surface and near-surface soils have high expansion potential.

Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy SAF-P1.4:** Determine the geologic suitability of proposed development sites during the earliest stages of the planning process. Such analyses should consider the potential structural engineering needs of the project and the impacts development activities may have on adjacent lands.
- **Policy SAF-P1.5:** Require geotechnical studies prior to approving rezoning requests, specific plans, or subdivision maps in areas that have experienced landslides in the past, as shown in Figure SAF-3, and that are within ¼ mile of a fault.
- **Policy SAF-P1.6:** Require preparation of a soils report prior to issuing a building permit, except where the Building Official determines that a report is not needed.
- **Policy SAF-P1.11:** Require contour rounding and revegetation to preserve natural qualities of sloping terrains, mitigate the artificial appearance of engineered slopes, and control erosion. Encourage the use of native trees and shrubbery in revegetation areas.
- **Policy COS-P14.5:** Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from construction or from new impervious surfaces.
- **Policy COS-P6.4:** Require that if cultural resources, including archaeological or paleontological resources, are uncovered during grading or other on-site excavation activities, construction shall stop until appropriate mitigation is implemented.
- **Policy COS-P6.5:** Require that any archaeological or paleontological resources on a development project site be either preserved in their sites or adequately documented as a condition of removal. When a development project has sufficient flexibility, avoidance and preservation of the resource shall be the primary mitigation measure, unless the City identifies superior mitigation. If resources are documented, coordinate with descendants and/or stakeholder groups, as warranted.

Discussion

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

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

A review of the most recent Alquist-Priolo Earthquake Fault Zoning Map indicates that the project site is not within an Alquist-Priolo Earthquake Fault Zone, and the California Geological Survey (CGS) Fault Activity Map of California (DOC 2010) indicates no active faults traverse the proposed project site. Therefore, there would be **no impact.**

ii) Strong seismic ground shaking?

Based on a review of the CGS Fault Activity Map of California (DOC 2010), no active faults traverse the proposed project site. The closest fault that has been active within the past 1.6 million years is an unnamed fault within the Vaca fault zone, located approximately 2.4 miles southwest of the project site (DOC 2010). As discussed in the environmental setting above, General Plan policies under Goal SAF-1 require that the potential risks associated with fault rupture, ground shaking, liquefaction and landslides are minimized through compliance with the California Building Code (CBC) design requirements. Compliance with the CBC seismic standards would ensure maximum practicable protection from strong seismic ground shaking. With compliance with these requirements and recommendations, impacts would be **less than significant.**

iii) Seismic-related ground failure, including liquefaction?

Generally, Vacaville is characterized by low liquefaction potential; however, areas near Ulatis Creek and Alamo Creek are susceptible to high levels of liquefaction (City of Vacaville 2015a). The proposed project is not located near areas prone to liquefaction and is not identified as a required zone of investigation for liquefaction (DOC 2015). General Plan policies under Goal SAF-1 require that the potential risks associated with fault rupture, ground shaking, liquefaction and landslides are minimized through compliance with the CBC design requirements. Compliance with these requirements would ensure that impacts related to seismic-related ground failure, including liquefaction, are **less than significant.**

iv) Landslides?

The project site is relatively flat and is not located in an area that would be subject to landslides. The project applicant would be required to comply with General Plan policies and the CBC to reduce risks from seismic shaking, ground shaking, liquefaction and landslides. Therefore, impacts would be **less than significant.**

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

Construction of the proposed project would result in temporary exposure of site soils to the erosive forces of rainfall and high winds. Section 14.26.030.020 of the City's Land Use Development Code establishes Best Management Practices (BMPs) to control erosion, including a post-construction BMP design plan, which provides BMPs to control volume, rate and potential pollutant load of storm water runoff and a storm water facilities operation and management plan (City of Vacaville 2015b). Grading standards describing

required erosion control techniques are included in Section 14.19.244.010 of the Land Use and Development Code. These control techniques include use of filter materials, approved erosion control such as sedimentation basins or check dams, and measures described in the Post-Construction Erosion and Sediment Control Plan outlined in Section 14.19.242.020 of the City's Code (City of Vacaville 2008). In addition, compliance with General Plan policies SAF-P1.11 and COS-P14.5, which require contouring and revegetation to preserve natural sloping and control erosion and use of BMP's to minimize erosion resulting from construction of new impervious surfaces would help minimize potential impacts. Compliance with applicable sections of the City's Land Use and Development Code and General Plan policies would reduce erosion impacts associated with new development to a **less-than-significant level**.

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

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

Unstable soils could create hazards for future development. This includes the potential for lateral spreading to occur, where liquefiable layers are present and subsidence occurs in areas underlain by water-saturated, low-density alluvial materials (City of Vacaville 2013). Expansive soils with a high shrink-swell potential can cause structural damage to buildings, roads, and other structures. These soils are generally found in areas that were historically floodplains or lake areas, but such soils can also occur in hillside areas. The Geotechnical Report determined that a major portion of the on-site surface and near-surface soils have high expansion potential and are capable of exerting significant expansion pressures on site structures. To mitigate the effect of expansive soils, the Geotechnical Report includes recommendations such as deepening foundations to a point where soil moisture is reduced, replacement of expansive soils with imported non-expansive soils, and/or lime treatment of the upper 15-24 inches of expansive soil. The project applicant is also required to comply with CBC criteria and standards designed to reduce geologic risks to acceptable levels. Adherence to the recommendations included in the Geotechnical Report, as well as current regulations related to building standards, would ensure that site structures would be designed and engineered to withstand impacts of expansive and unstable soils. Therefore, impacts would be **less than significant**.

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

The proposed project is designed to connect to the City's existing sewer system and provide on-site sewer service. The project does not include any septic tanks or alternative wastewater disposal systems; therefore, **no impact** would occur.

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

There are no known paleontological resources or unique geologic features located on the project site, and the site is generally void of any indications of unique geologic features. Due to the disturbed nature of the project site and relatively shallow site disturbance required by project construction, the project is unlikely to directly or indirectly destroy a unique paleontological resource. Impacts would be **less than significant.**

Mitigation Measures

None required.

3.8 Greenhouse Gas Emissions

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

Environmental Setting

Assembly Bill (AB) 32 requires that California reduce its greenhouse gas (GHG) emissions to 1990 levels by year 2020. Under this legislation, the CARB is required to establish a program for statewide GHG emissions reporting, as well as monitoring and enforcement for the reporting program. The AB 32 Scoping Plan, approved December 12, 2008, includes a range of GHG reduction actions including a cap and trade program that covers 85% of the State's emissions (City of Vacaville 2015a, p. COS-25). In addition, SB 375 requires the automobile and light truck industry to produce reduced-emission vehicles and requires metropolitan planning organizations to prepare sustainable communities strategies to demonstrate how a region will meet CARB's GHG reduction targets by reducing the amount of vehicle miles traveled (City of Vacaville 2015a, p. COS-25).

The Association of Bay Area Governments and the Metropolitan Transportation Commission have prepared a sustainable communities strategy for the Bay Area, *Plan Bay Area*, which includes the City. The Plan Bay Area plan was adopted in 2013, and includes a 2008 GHG emissions inventory prepared for the City, which is used as a baseline to measure future GHG emissions reductions. The City calculated the increase in GHG emissions associated with proposed land uses included in its General Plan. The results showed that transportation accounted for the highest percentage of GHG emissions (63%), followed by non-residential (17%) and residential (16%) energy use, solid waste disposal (2%), moving and treating water/wastewater (1%) and other off-road emissions (1%) (City of Vacaville 2015a, Figure COS-3). The City's ECAS includes the 2008 GHG emissions inventory, a 2020 Business as Usual (BAU) forecast model, and targets for GHG emissions reduction and measures to meet those reduction targets (City of Vacaville 2015a, p. COS-26).

Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy COS-P9.8:** Promote green building practices in new development.
- **Policy COS-P11.1:** Require that new development incorporate energy-efficient design features for HVAC, lighting systems, and insulation that exceed Title 24.
- **Policy COS-P11.2:** Require that site and structure designs for new development promote energy efficiency.

- **Policy TR-P8.9:** Require that new multi-family and non-residential developments provide adequate public and private bicycle parking and storage facilities.
- **Policy H.1-I17:** Implement California energy conservation standards.
- **Policy H.1-I18:** Implement the California Green Building Standards Building Code.
- **Policy H.1-I19:** Encourage energy-conserving development patterns.
- **Policy H.1-I20:** Encourage energy conservation through energy-reducing landscaping, orientation and configuration of buildings, site, and other factors affecting energy use.

Listed below is a relevant development standard from the Vacaville-Golden Hills Business Park Policy Plan (City of Vacaville 2018a):

- The use of mass transit, carpooling, bicycling, and other options to reduce auto dependency should be encouraged through appropriate design.

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

A significant impact on the environment would be less than significant if it complies with a qualified GHG emissions reductions strategy or results in less than 6.6 metric tons (MT) of carbon dioxide equivalent (CO_2e) per service population per year (City of Vacaville 2013, p. 4.7-22). The General Plan EIR concluded that the proposed ECAS is a qualified GHG emissions reduction strategy because it contains the elements required by the BAAQMD, including a GHG emissions inventory and Business as Usual (BAU) projection, a GHG emissions reduction target consistent with AB 32, a review of relevant local and state policies, quantitative emissions projections demonstrating target achievement, and strategies for implementation, monitoring and environmental review (City of Vacaville 2013, p. 4.7-23-24).

The project applicant would comply with General Plan policies COS-P11.1, which requires energy-efficient design features, COS-P11.2, which requires that site and structure designs promote energy efficiency, and TR-P8.9, which requires that new non-residential developments provide adequate bicycle parking and storage facilities. The project would include energy efficient lighting, appliances, and fixtures consistent with state and local energy requirements; dedicated parking for electronic vehicles; and bike racks consistent with City requirements.

The City is committed to reducing GHG emissions though the implementation of reduction measures outlined in the ECAS. The proposed project would be consistent with the ECAS and would incorporate features that would reduce GHG emissions. The project would have a **less-than-significant impact** related to the generation of GHGs.

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

Based on an updated statewide GHG emissions inventory data, the state would need to reduce emissions by 21.7% from 2020 BAU projections in order to reach 1990 levels by 2030 (AEP 2012). In addition to the 2020 target for statewide GHG emissions reductions, Executive Order B-30-15 establishes that statewide GHG emissions be reduced to 40% below 1990 levels by 2030 and Executive Order S-03-05 establishes a target to reduce GHG emissions by 80% below 1990 levels by 2050. GHG emissions in the City through

buildout of the General Plan (2035) are projected to be 1,519,040 MT CO_2e. Including state and federal measures to reduce GHG emissions, the amount would be reduced to 1,131,010 MT CO_2e (City of Vacaville 2013, p. 4.7-27). There are no adopted State plans to achieve reductions beyond 2020 and it is likely that additional measures would be required to meet the 2030 and 2050 goals. The General Plan EIR concluded that buildout of the General Plan, including application of measures contained in the ECAS would conflict with the State's 2050 goal to reduce emissions by 80% below 1990 levels and the impact would be significant. It is assumed that a majority of the reductions needed to reach the 2030 and 2050 goals would come from state measures. The City has identified all feasible GHG emission reduction measures considered during the ECAS process, which are included in the ECAS.

GHG emissions are cumulative in nature and potential GHG emissions generated by the land uses assumed for the project site were included in the City's General Plan GHG forecast that was analyzed in the General Plan EIR, which included development of the entirety of the project site. The project applicant would comply with General Plan policies, ECAS policies, and federal and state regulations. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and impacts would be **less than significant.**

Mitigation Measures

None required.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☒	☐	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Environmental Setting

Hazardous Materials

A Phase I Environmental Site Assessment (Phase I ESA) was prepared for the project site by Brusca Associates in April 2019 (Appendix E). The Phase I ESA concluded that the project site does not contain any obvious Recognized Environmental Conditions (RECs). No obvious conditions indicative of releases or threatened releases of hazardous substances, pollutants, contaminants, petroleum and petroleum products on, at, in, or to the project site were identified in the Phase I ESA. The project site is not listed in any hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List). The search of regulatory lists for hazardous materials sites in the vicinity of the property did not identify any obvious potential off-site sources of contamination to the project site.

Solano County is the Certified Unified Program Agency (CUPA) for its all cities and unincorporated areas, and has adopted a Hazardous Waste Management Plan for all waste projected to be generated within the county (City of Vacaville 2015a). Furthermore, the County has a Hazardous Materials Business Plan, which regulates all businesses that handle hazardous materials in quantities greater than or equal to 55 gallons of liquid, 500 pounds of solids, or 200 cubic feet of gas and addresses the preparedness for emergency response to incidents involving hazardous materials (Solano County 2016). The City has adopted the Association of Bay Area Governments (ABAG's) regional hazard mitigation plan, *Taming Natural Disasters: Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area*, as the local hazard mitigation plan for natural disasters and emergency response (City of Vacaville 2015a).

The proposed project is speculative in nature because the building tenants are not known, but is not anticipated to generate hazardous waste equal to the quantities regulated by the Solano County Hazardous Waste Management Plan. The nearest school to the project site is Solano Community College Vacaville Center, located approximately 0.65 mile to the east. The nearest K-6 public school is Browns Valley Elementary School, located approximately 1.5 miles southwest of the project site.

Wildfire Hazards

Given the location of the project site and proximity to large open space areas, there is a potential for wildland fires. The nearest High Fire Severity Zone and Moderate Fire Severity Zone designated areas are located approximately 0.3 mile west of the project site (City of Vacaville 2013). Chapter 14.20.290 of the City's municipal code includes requirements to reduce risks from wildland fires for new development adjacent to permanent open space or other lands where no development is anticipated in the near future (City of Vacaville 2015a).

Airport Hazards

Nut Tree Airport Land Use Compatibility Plan

The Nut Tree Airport is located approximately 1.0 mile to the south of the project site. The Nut Tree Airport Land Use Compatibility Plan (ALUCP) was prepared in May 1988 and has not been updated since. The ALUCP sets forth the criteria the Solano County Airport Land Use Commission uses to evaluate land use plans and development within the vicinity of the Nut Tree Airport. The project site is located within Zones C and D of the Nut Tree Airport Land Use Compatibility Plan (City of Vacaville 2015a, Figure LU-4). Zone C, defined as the Outer Approach/Departure Zone, limits density to 50 people within structures and 75 people per acre. Zone D, defined as the Extended Approach/Departure Zone, limits density to 100 people within structures and 150 people per acre (Solano County ALUC 1988). Additionally, height limits are established consistent with the Federal Aviation Administration (FAA) Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace, which states that any buildings exceeding 200 feet above ground level must undergo review by the Solano County Airport Land Use Commission (ALUC), and the Administrator of the FAA must be notified (Solano County 2010).

Travis Air Force Base, Airport Land Use Compatibility Plan

The Travis Air Force Base Airport Land Use Compatibility Plan (2015 Update) sets forth land use compatibility policies applicable to future development in the vicinity of the base. These policies are designed to ensure that future land uses in the surrounding area would be compatible with existing and future aircraft activity at the base, including the potential for bird strike hazards to be created. The project site is located within Zone D of the Land Use Compatibility Plan for the Travis Air Force Base. The Travis Air Force Base Land Use Compatibility Plan does not include any limits related to density, but establishes height limits consistent with the FAA (Solano County 2015).

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy SAF-P5.6:** Require all development applications to be reviewed and approved by the Fire Department prior to project approval.
- **Policy SAF-P7.3:** Maintain an adequate level of disaster response preparedness through careful review of proposed developments and through staff training in and exercise of the local hazard mitigation plan.
- **Policy SAF-P7.4:** Require that emergency access routes be kept free of traffic impediments.
- **Policy PUB-P1.1:** Prohibit any development that will not, even with identified mitigation measures, maintain standards for fire, rescue, and emergency medical service. All service standards shall be met prior to project occupancy. Allow exceptions to these services standards only when there are overriding findings of special circumstances or economic or social benefits.
- **Policy PUB-P1.4:** Identify and mitigate fire hazards during the project review and approval process.

- **Policy LU-P27.3:** Ensure that land uses in the vicinity of Nut Tree Airport, or potentially affected by Travis Air Force Base, are compatible with airport operations and are consistent with the Airport Land Use Compatibility Plans for both airports.
- **Policy LU-P27.4:** Encourage uses that are compatible with the noise, air quality, and traffic impacts associated with airports, such as aviation-oriented commercial and industrial uses, to be located near the Nut Tree Airport whenever possible.
- **Policy COS-P14.3:** Encourage pest-tolerant landscapes using native plants to minimize the need for pesticides.

Listed below are relevant development standards from the Vacaville-Golden Hills Business Park Policy Plan (City of Vacaville 2018):

- **Aviation-Related Restrictions** – The Policy Plan area is impacted by aviation activity at the Nut Tree Airport. In order to protect airport operations from future encroachment and to provide appropriate safeguards for new development in the Policy Plan area, special land use and height restrictions apply. These restrictions overlay the regulations established for each area within the Plan and are in Chapter 14.09.134 (Airport Land Use Compatibility) in the Land Use and Development Code. The Policy Plan requires that maximum building height shall not exceed 70 feet, except within 250 feet of Vaca Valley Parkway and East Monte Vista Avenue where heights are limited to 36 feet.

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

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

The project's project is speculative in nature, and future building tenants are currently unknown. Thus, it is also unknown the amount of transport, use, and disposal that would occur from future project operation. However, the project applicant and future tenants would be required to comply with existing regulations related to transport, use and disposal of hazardous materials during both construction and operation. Hazardous materials and hazardous wastes are heavily regulated by federal, State and local agencies, including the California Environmental Protection Agency (Cal EPA) and the State Department of Toxic Substances Control (DTSC). Additionally, the Phase I ESA concluded that the project site does not contain any obvious conditions indicative of any prior releases or threatened releases of hazardous substances, pollutants, contaminants, petroleum and petroleum products. With consideration of the above, impacts would be **less than significant.**

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

The City's General Plan policies require adequate separation between hazardous materials sites and sensitive uses (such as schools) and specify development standards for properties where hazardous materials are present. The nearest school to the project site is Solano Community College Vacaville Center, located approximately 0.65 mile to the east. The nearest K-6 public school is Browns Valley Elementary School, located approximately 1.5 miles southwest of the project site. Neither of these schools are located within a quarter mile of the site and it is assumed future tenants of the project would comply with General Plan policies along with federal, State and local regulations regarding the potential emissions and handling

of hazardous materials or substances. These policies and regulations would ensure that the project would not pose any hazards to existing or proposed schools. Therefore, impacts would be **less than significant**.

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

The Phase I ESA prepared for the project noted there are no RECs present on the site and no hazardous substances, pollutants, contaminants, petroleum or petroleum products (see Appendix E). The project site is not listed in a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Furthermore, the search of regulatory lists for hazardous materials sites in the vicinity of the property did not identify any obvious potential off-site sources of contamination to the project site. Therefore, impacts would be **less than significant**.

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?

As discussed in the environmental setting above, the project site falls within the Nut Tree Airport ALUCP Zones C and D and Travis Air Force Base ALUCP Zone D. Areas within these compatibility zones experience frequent outdoor noise intrusion. The Travis Air Force Base ALUCP Zone D does not include any height limitations, but does require land uses within the Bird Strike Hazard Zone and Outer Perimeter to consider the potential for the project to attract hazardous wildlife, wildlife movement, or bird strike hazards (Solano County 2015). The project site is not located within the Bird Strike Hazard Zone or Outer Perimeter and does not include any uses, such as a water feature that could attract wildlife or contribute to the potential for bird strike hazards to occur.

A small portion at the southeastern portion of the project is located within the 55 community noise equivalent level (CNEL)[2] noise contour in the Nut Tree Airport ALUCP. The ALUCP indicates that within the 50-55 CNEL noise contour, commercial and industrial land uses such as offices and warehousing are "clearly acceptable," meaning that the activities associated with these land uses can be carried out with essentially no interference from the noise exposure (Solano County ALUC 1988). The proposed project would not create substantial glare or lights that could be mistaken for airport lights, would not generate smoke or electrical interference contributing to a potential hazard and would not include uses that could attract wildlife. Furthermore, the Nut Tree Airport ALUCP sets forth a maximum in-structure density requirement of 100 people per acre and a maximum total in-and-out of structure capacity of 150 people per acre for uses within Compatibility Zone D. A small, southeastern portion of the project site is within Compatibility Zone C, which has a density requirement of 50 people per acre in a building, and a maximum in-and-out structure capacity of 75 people per acre. However, this small portion of the project site is not expected to attract many people, as it would only contain a few outdoor parking spaces and landscaping along the site boundary. Based on the Zone D requirement, this equates to a total in-structure density requirement of 3,000 people for the entire 30-acre project site (although only about 12 acres would be developed), and a total in and out of structure requirement of 4,500 people. Although the project is speculative in nature, it is not anticipated that the project would reach these maximum densities.

[2] The community noise equivalent level (CNEL) refers to the weighted average noise level over time.

The Vacaville-Golden Hills Business Park Policy Plan sets a maximum building height of 70 feet except within 250 feet of Vaca Valley Parkway and East Monte Vista Avenue and 100 feet from Allison Parkway where heights are limited to 36 feet. The proposed project has a maximum building height of 49 feet-6 inches. Building 2 would be located in an area subject to a maximum height of 36 feet. As required by Mitigation Measure HAZ-1, the applicant would be required to obtain a decision by ALUC that finds the project to be consistent with the airport land use plan. With implementation of Mitigation Measure HAZ-1, impacts would be **less than significant with mitigation.**

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

As discussed in the environmental setting above, the City's emergency response plan is the ABAG's Taming Natural Disasters report. The City's General Plan includes several policies to ensure that new development within the City incorporates emergency access routes and does not interfere with emergency operations. In accordance with General Plan Policy SAF-P7.3, proposed developments must be reviewed by the City to ensure compliance with the local hazard mitigation plan. Any development in the City that does not maintain standards for fire, rescue, and emergency medical service is prohibited, per General Plan Policy PUB-P1.1. The proposed project would not impair emergency access in the event of an evacuation and would comply with General Plan policies related to reducing interference with adopted emergency response plans. Therefore, impacts would be **less than significant**.

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

As discussed in the environmental setting above, the City contains areas designated by Cal Fire as High and Moderate Fire Severity Zones. The nearest High Fire and Moderate Fire Severity Zone is located approximately 0.3 mile west of the project site (City of Vacaville 2013). The closest Very High Fire Severity Zone is in a State Responsibility Area approximately 5.4 miles west of the project site, along the western County boundary (CAL FIRE 2007). General Plan Policy SAF-5.2 requires all development in areas with a potential wildland fire risk to include firebreaks adjoining open areas, provide adequate access to open space, ensure clearance around structures, fire-resistant ground cover and roofing materials are included, and adequate emergency water flow is available. Section 14.20.290 of the City's Land Use Development Code provides development standards for new construction adjacent to open space where there is a threat of wildfire such as use of fire buffer zones, fire access roads, use of a fire protection greenbelt, drainage ditches, rear/side yard setbacks, non-combustible fencing, and sprinkler systems (City of Vacaville 2015b). Lands surrounding the project site consist primarily of developed uses. The project would comply with General Plan policies and Section 14.20.290 of the Land Use Development Code as well as the CBC, which requires sprinklers be included in all buildings and a defensible space is provided between buildings and potentially flammable landscaping. Therefore, impacts would be **less than significant**.

Mitigation Measures

Mitigation measure HAZ-1 would ensure the project would not result in an impact for projects located within an airport land use plan. Compliance with mitigation measure HAZ-1 would ensure the project's impact is mitigated to less than significant.

Mitigation Measure HAZ-1: The project applicant shall obtain a decision from the Solano County Airport Land Use Commission finding that the project, including building height and density is consistent with the Nut Tree Airport Land Use Compatibility Plan. If the Airport Land Use Commission determines that the project is not consistent with the Nut Tree Airport Land Use Compatibility Plan, the building plans shall be modified to be consistent prior to issuance of building permits.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on or off site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	☐	☐	☒	☐
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?	☐	☐	☒	☐

Environmental Setting

The City is permitted under National Pollution Discharge Elimination System (NPDES) permit number CA0077691 issued by the Central Valley Regional Water Quality Control Board (CVRWQCB) (RWQCB 2014) to permit the disposal

of treated wastewater. Wastewater is treated at the Easterly Wastewater Treatment Plant (WWTP) in accordance with the requirements in the NPDES and released into Old Alamo Creek where it travels to Cache Slough and eventually out to the Delta (City of Vacaville 2019). There are four major stream courses within the City: Old Alamo Creek and its tributaries; Laguna Creek and Encinosa Creek; Ulatis Creek, Horse Creek and tributary Pine Tree Creek; and Gibson Canyon Creek. The City has two existing reservoirs, Lagoon Valley Lake that drains a portion of Lower Lagoon Valley, and Basherini Reservoir, which is owned and operated by the Solano Irrigation District (SID). Generally, the natural and unaltered creeks do not have the capacity to convey a 100-year storm event and some areas cannot accommodate a 10-year storm event (City of Vacaville 2015a).

The City owns and operates eleven municipal groundwater wells that withdraw water from the deep aquifer in the Tehama Formation, underlying the Solano Subbasin. Annual groundwater pumping has varied substantially from a low of 2,862 acre-feet per year (AFY) in 1968 to a high of 8,024 AFY in 1983. In 2010, approximately 5,100 AFY was supplied to the City (City of Vacaville 2013). In 2015, the City withdrew approximately 5,222 AFY of groundwater (City of Vacaville 2016). The General Plan EIR determined that the total water demand through 2035 from future development would be approximately 26.2 million gallons per day (mgd) or 80.4 acre-feet. The most recent 2015 Urban Water Management Plan (UWMP) did not identify the need to construct new groundwater wells (City of Vacaville 2016). The project site is not located within a 100-year Flood Zone (City of Vacaville 2013).

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy COS-P14.1:** Protect the Alamo, Encinosa, Gibson, and Ulatis Creek watersheds by minimizing point and nonpoint source pollutants.
- **Policy COS-P14.3:** Encourage pest-tolerant landscapes using native plants to minimize need for pesticides.
- **Policy COS-P14.5:** Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from construction or from new impervious surfaces.
- **Policy COS-P14.6:** Protect existing open spaces, natural habitat, floodplains and wetland areas that serve as groundwater recharge areas.
- **Policy COS-P14.7:** Protect groundwater recharge and groundwater quality when considering new development projects.
- **Policy SAF-P2.2:** Assess the adequacy of storm drainage utilities in existing developed areas, and program any needed improvements in coordination with new infrastructure that will serve developing areas.
- **Policy SAF-P2.4:** Design storm drainage infrastructure to serve dual purposes to the extent possible. This includes the following:
  - Drainage facilities integrated into recreational corridors with bike paths, sidewalks and landscaping.
  - Drainage channels integrated with transportation and environmental corridors.
  - Active and passive recreation areas incorporated into detention basins where feasible.
- **Policy SAF-P2.5:** Maintain open areas needed to retain stormwater and prevent flooding of urban or agricultural land.
- **Policy SAF-P3.1:** Evaluate the storm drainage needs for each project, this evaluation should account for projected runoff volumes and flow rates once the drainage area is fully developed. In the Alamo Creek watershed upstream of Peabody Road (including Alamo, Laguna, and Encinosa creeks), require post-development 10-year and 100-year peak flows to be reduced to 90% of predevelopment levels. In the

remainder of Vacaville, for development involving new connections to creeks, peak flows shall not exceed predevelopment levels for 10- and 100-year storm events.

- **Policy SAF-P3.2:** Continue to require development impact fees to fund necessary storm drainage improvements, including drainage detention basins.
- **Policy SAF-P3.3:** Require a Storm Drainage Master Plan to be prepared for new development projects to ensure new development adequately provides for on-site drainage facilities necessary to protect the new development from potential flood hazards and ensure that potential off-site impacts are fully mitigated.
- **Policy SAF-P3.4:** Require that new development designate storm drainage easements or routes when tentative maps or specific plans are approved.
- **Policy SAFP4.4:** Require that new development mitigate its additional runoff and mitigate removal of any floodplain areas.

Discussion

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

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

The proposed project would convert up to approximately 520,000 sf, or 12 acres, of undeveloped land to developed uses including two warehouse buildings and paved surfaces that would increase impervious surface area. During construction, stormwater runoff could potentially violate applicable water quality standards by introducing pollutants to stormwater runoff. Land disturbances such as vegetation removal and temporary soil stockpiling could potentially increase sediment levels in stormwater runoff by exposing soils loosened by construction activity. Materials that could spill or leak during construction include diesel fuel, gasoline, and construction-related trash and debris. Improper management of hazardous materials could result in accidental spills or leaks, which could locally contaminate stormwater runoff.

Development that disturbs one-acre or more of land is required to comply with the CVRWQCB's NPDES permit, which requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must include best management practices (BMPs) to prevent or reduce erosion, improve sediment control, control run-on and runoff and prevent pollutants from entering runoff (City of Vacaville 2013). Compliance with General Plan Goal COS-14 and associated policies would protect water quality by minimizing point and non-point source pollutants, minimizing pesticide use, and requiring BMPs to protect water quality from construction and new impervious surfaces.

The proposed project would adhere to all applicable plans and standards, including those of the NPDES Permit program. The project is not anticipated to violate any water quality standards or waste discharge requirements during construction or operation. As the proposed project would comply with state, federal, and local policies that protect water quality, it would not violate any water quality standards or waste discharge requirements, or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, or otherwise substantially degrade surface or ground water quality. Impacts would be **less than significant.**

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

The proposed project would increase impervious surface area and reduce open space used for groundwater recharge. According to the City's Groundwater Management Plan, primary groundwater recharge areas are located east of the English Hills and north of the Vacaville area where the Tehama Formation outcrops (City of Vacaville 2011). As such, conversion of the project site from undeveloped to urban uses would not significantly reduce the area available for groundwater recharge.

Per the City's 2015 UWMP, the Solano Subbasin is not projected to become over drafted if current management conditions continue (City of Vacaville 2016). The UWMP did not identify the need to construct new groundwater wells. General Plan policies under goal COS-13 and the Energy Conservation and Action Strategy include measures to promote water conservation and encourage the use of non-potable water, which would reduce demand on water supply, including groundwater resources. Groundwater recharge would be protected through compliance with General Plan policies requiring protection of existing open spaces, natural habitat, floodplains and wetlands, as well protection of groundwater quality and recharge when considering new development. The project would connect to the City's water system and would promote water conservation consistent with General Plan policies. Therefore, impacts on groundwater supplies and recharge would be **less than significant.**

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

i) result in substantial erosion or siltation on or off site;

There are no streams or rivers located on or immediately adjacent to the project site. The proposed project would alter the existing drainage patterns on the site and cause an increase in peak flows and volumes by converting undeveloped land to predominantly impervious surfaces. General Plan policies under goals COS-14 and SAF-3 require BMPs to minimize erosion, sedimentation and water quality degradation, evaluation of drainage needs at the project-level, and preparation of a Storm Drainage Master Plan for new development. The proposed project would also comply with NPDES permit requirements by preparing a SWPPP, as discussed above in items (a, e). Additionally, Section 14.19.242 of the City's Land Use and Development Code regulates grading and earth moving. Grading permits are issued for construction activities subject to the NPDES permitting requirements providing an Erosion and Sediment Control Plan is submitted, which shows that the project would comply with the Clean Water Act.

The proposed project would connect to the City's drainage system via existing 18-inch storm drain lines in Aviator Drive and East Monte Vista Avenue, which have been sized to adequately serve future development. The proposed project would also pay the City's detention fees to reimburse the City for any required transmission sized storm drain facilities. As the proposed project would comply with General Plan policies and NPDES permitting requirements, and pay require detention fees, impacts would be **less than significant.**

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;

As described in item c (i) above, the project would change existing on-site drainage patterns by increasing the impervious surface area on the project site. This would increase the rate and volume of surface runoff, and could potentially result in flooding on or off site. The project would comply with General Plan policy SAF-P3.1, which requires storm drainage be evaluated for each project to ensure peak flows do not exceed the capacity of the City's storm drainage system. The project would be required to pay the regional City Standard detention and conveyance fees as accepted mitigation for connecting the project's storm drain system to the City's existing system. Furthermore, in compliance with General Plan policy SAF-P3.3, the project would be required to prepare a Storm Drainage Master Plan to reduce potential flood hazards. Additionally, the project is within the Federal Emergency Management Agency's (FEMA's) Flood Hazard Zone X, which describes areas of minimal flood hazard (FEMA 2019). Therefore, although the project would result in an increase in impervious area that would produce more runoff, the project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site. The project's impact would be **less than significant**.

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

Storm water runoff currently drains to an existing detention basin at the northwest corner of Aviator Drive and East Monte Vista Avenue, which flows into two storm drains along East Monte Vista Avenue when it overtops. A proposed on-site drainage system would collect stormwater from Building 1 at a proposed detention basin located on the southeast corner of the site. Water would then drain through a water quality vault and be conveyed to the City's storm drain system located at the southeast corner of the property. At Building 2, the northerly portion of the site would drain through water quality swales, and runoff would be discharged to an existing storm drain stub along East Monte Vista Avenue, near the northeast corner of the property. The remainder of the site would drain to the southeast corner of the site, where the on-site system ties into an existing storm drain stub on Aviator Drive, which then ties into a storm drain main in Aviator Drive and flows east toward East Monte Vista Avenue.

As described in item c (ii) above, the project would comply with General Plan Policy SAF-P3.1, which requires storm drainage be evaluated for each project to ensure peak flows do not exceed the capacity of the City's storm drainage system, and Policy SAF-P3.3, which requires preparation of a Storm Drainage Master Plan to reduce potential flood hazards. The project would also be required to pay the regional City Standard detention and conveyance fees as accepted mitigation for connecting the project's storm drain system to the City's existing system. Additionally, the proposed project would adhere to all applicable water quality plans and standards, including those of the NPDES Permit program. It is anticipated the project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be **less than significant.**

iv) impede or redirect flood flows?

The project site is not located within a 100-year Flood Zone. Although the project would increase the amount of impervious surface area on the site, it would not impede or redirect flood flows, and **no impact** would occur.

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

As mentioned in the environmental setting above, the project site is not located within a 100-year floodplain or dam inundation area. A seiche could form on Lake Berryessa, which is located approximately 10 miles from the City (City of Vacaville 2013). Due to the distance, the City is not at risk from inundation if a seiche did occur, and the City would not be at risk of tsunamis since it is located more than 10 miles inland from Suisun Bay. Therefore, there would be no risk of pollutant release from flooding, tsunami, or seiche, and **no impact** would occur.

Mitigation Measures

None required.

3.11 Land Use and Planning

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

Environmental Setting

The City's General Plan is the primary planning document that sets forth a vision for future development. The City's General Plan designates the site as IP on the western side (APNs -710; -670; -680) and CG on the eastern side (APNs -290; -300) and the entire site is zoned IP. The IP designates areas for industrial uses requiring access to major transportation lines and large areas for structures, truck loading, parking, and storage. It also accommodates light manufacturing and heavy industrial uses. The CG designation provides for a full range of commercial uses, including retail stores, food and drug stores, auto sales, and similar businesses. Surrounding properties are also zoned for commercial and warehouse/industrial uses. The project site is located within the Golden Hills Business Park Policy Plan, which establishes zoning and land use standards for the area. Per the Policy Plan, the western portion of the site is within Zone III while the eastern portion is within Zone II. Area II is designated as Business Park and Industrial Park, and zoned Industrial Park. Zone III is both designated and zoned IP. The zoning and land use designations of Zone III are consistent with the General Plan and the City's Zoning Ordinance (City of Vacaville 2018). As a part of the project, the project applicant is requesting a General Plan Amendment from CG (APNs -290; -300) to IP, which would make the proposed land uses these areas consistent with the City's Zoning Ordinance, Policy Plan, and General Plan.

Golden Hills Business Park Policy Plan

Areas located within the Golden Hills Business Park Policy Plan are subject to specific site development and performance standards. Performance standards include aviation-related restrictions to provide appropriate safeguards for new

development in the project site area. These restrictions overlay the regulations established for each area within the General Plan. Refer to Section 3.9, Hazards and Hazardous Materials, for further detail about aviation-related restrictions, and Section 3.1, Aesthetics, for further detail about building design and development standards.

Nut Tree Airport Land Use Compatibility Plan

The project site would be located within Nut Tree Airport Compatibility Zone D, which is an area of moderate risk associated with frequent noise intrusion. The Nut Tree Airport ALUCP sets forth a maximum in-structure density requirement of 100 people per acre and a maximum total in-and-out of structure capacity of 150 people per acre for uses within Compatibility Zone D. A small, southeastern portion of the project site is within Compatibility Zone C, which has a density requirement of 50 people per acre in a building, and a maximum in-and-out structure capacity of 75 people per acre. This portion of the project site is not expected to attract many people, as it would only contain a few outdoor parking spaces and landscaping along the site boundary. Based on the Zone D requirement, this equates to a total in-structure density requirement of 3,000 people for the entire 30-acre project site (although only about 12 acres would be developed), and a total in and out of structure requirement of 4,500 people. The proposed project is not expected to exceed this density requirement. As required by the Policy Plan, the project would be reviewed by the Solano County Airport Land Use Commission for a consistency determination.

Travis Air Force Base Land Use Compatibility Plan

The project site is located within Zone D of the Land Use Compatibility Plan for the Travis Air Force Base (City of Vacaville 2013, Figure LU-4 and LU-5). The Travis Air Force Base Land Use Compatibility Plan does not include any limits related to density, but established height limits consistent with the FAA (Solano County 2015).

The Travis Air Force Base Airport Land Use Compatibility Plan sets forth land use compatibility policies applicable to future development in the vicinity of the base. The policies are designed to ensure that future land uses in the surrounding area will be compatible with existing and future aircraft activity at the base. The Travis Air Force Base ALUCP requires land uses within the Bird Strike Hazard Zone and Outer Perimeter to consider the potential for the project to attract hazardous wildlife, wildlife movement, or bird strike hazards (Solano County 2015). The project is not located within the Bird Strike Hazard Zone or Outer Perimeter.

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy LU-P1.4:** Protect established neighborhoods from incompatible uses.
- **Policy LU-P1.5:** With the exception of Priority Development Areas, require that infill projects be designed to complement the neighborhood and surrounding zoning with respect to the existing scale and character of surrounding structures, and blend, rather than compete, with the established character of the area.
- **Policy LU-P3.5:** Encourage new development to consider transit, pedestrian, and bicycle circulation during the design phase.
- **Policy LU-P11.4:** Maintain buffers between residential areas and business parks, industrial parks, and technology parks. The minimum separation shall be 200 feet.
- **Policy LU-P13.6:** Provide sufficient space to meet the need for commercial services and commercial recreation that can be supported by Vacaville's residents, businesses, and private workers
- **Policy LU-P15.2:** Strive to retain existing industry and allow existing industrial uses to expand, consistent with other General Plan policies.

- **Policy LU-P15.5:** Require that new industrial development be designed to avoid adverse impacts to adjacent non-industrial uses, particularly residential neighborhoods, with respect to, but not limited to, noise, dust and vibration, water quality, air quality, agricultural resources, and biological resources. Include specific standards in Policy Plans for adequate physical and aesthetic separation of industrial business parks and residential land.
- **Policy LU-P21.2:** Encourage businesses that do not require intensive wastewater collection capacity (e.g. offices), to locate in the Interchange Business Park, Vacaville-Golden Hills Business Park, and Vaca Valley Business Park Policy Plans.
- **Policy LU-P27.4:** Encourage uses that are compatible with the noise, air quality, and traffic impacts associated with airports, such as aviation-oriented commercial and industrial uses, to be located near the Nut Tree Airport whenever possible.

Discussion

a) Would the project physically divide an established community?

The project site is undeveloped with no buildings or other on-site structures. The proposed project would not divide an existing established community because the site does not contain any development. Therefore, the proposed project would result in **no impact.**

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

Land use plans that are applicable to the proposed project are described in the environmental setting above. Generally, the proposed project would be consistent with the City's General Plan and Policy Plan, the Nut Tree and Travis Air Force Base ALUCPs, and all applicable density, design, and building standards. However, the proposed project is requesting a General Plan Amendment of one parcel from CG to IP for consistency with the General Plan. With this General Plan Amendment, the proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigation an environmental effect, and impacts would be **less than significant**.

Mitigation Measures

None required.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental Setting

According to the General Plan, there is one limestone deposit with some evidence of historic use in the vicinity of Cement Hill and stone quarries in the Vaca Mountains. The western hills contain sandstone and conglomerated that may be used for sands, gravel and stone, but none of these resources are currently being mined (City of Vacaville 2015a). The project site is not located near Cement Hill or the western hills where mineral resources are known to occur.

Vacaville is not mapped in an area containing aggregate mines by the California Geological Survey (2018 Map Sheet 52). There are no mapped Mineral Resource Zone (MRZ)-2 zones in the City (City of Vacaville 2013). MRZ-2 zones are defined as areas where adequate information indicated that significant mineral resources (aggregate) deposits are present or where it is judged that there is a high likelihood for their presence (City of Vacaville 2013).

Listed below are the relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy COS-P16-1:** When reviewing land use proposals, take into account potentially available mineral resources on the property or in the vicinity of the project site.

Discussion

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

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

The project site is not designated as an area known to contain valuable mineral resources or have active or historic mineral resource recovery sites. The City of Vacaville does not have any mapped MRZ-2 zones, which are defined as areas where significant mineral resources are known to occur. The lack of MRZ-2 zones in the City indicates that there are no known mineral resources that would be of value to the region or the state. Development of the project site would not result in the loss of availability of a known mineral resource or a mineral resource recovery site. Furthermore, General Plan Policy COS-P16.1 directs the City to consider potentially available mineral resources at the Project site or vicinity when reviewing land use proposals. Therefore, the proposed project would result in **no impact** related to mineral resources.

Mitigation Measures

None required.

3.13 Noise

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

Environmental Setting

Noise Characteristics

Pressure fluctuations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibels (dB) that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz (Hz). The normal frequency range of hearing for most people extends from about 20 to 20,000 Hz. The human ear is more sensitive to middle and high frequencies, especially when the noise levels are quieter. To accommodate for this phenomenon, a weighting system to evaluate how loud a noise level is to a human was developed. The frequency weighting called "A" weighting is used for typical environmental sound levels which de-emphasizes the low frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is also often referred to as the "noise level" and is referenced in units of dBA. Table 3.13-1 provides examples of A-weighted noise levels from common sound sources.

Since sound is measured on a logarithmic scale, a doubling of sound energy results in a 3 dBA increase in the noise level. Changes in a community noise level of less than 3 dBA are not typically noticed by the human ear (Caltrans 2013). Changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA increase is readily noticeable. The human ear perceives a 10 dBA increase in sound level as a doubling of the sound level (i.e., 65 dBA sounds twice as loud as 55 dBA to a human ear).

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

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
—	110	Rock band
Jet flyover at 300 meters (1,000 feet)	100	—
Gas lawn mower at 1 meter (3 feet)	90	—
Diesel truck at 15 meters (50 feet), at 80 kph (50 mph)	80	Food blender at 1 meter (3 feet) Garbage disposal at 1 meter (3 feet)
Noisy urban area, daytime gas lawn mower at 30 meters (100 feet)	70	Vacuum cleaner at 3 meters (10 feet)
Commercial area Heavy traffic at 90 meters (300 feet)	60	Normal speech at 1 meter (3 feet)
Quiet urban daytime	50	Large business office Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural night time	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 2013.
Notes: kph = kilometers per hour; mph = miles per hour

An individual's noise exposure occurs over a period of time; however, noise level is a measure of noise at a given instant in time. The equivalent noise level L_{eq}, also referred to as the average sound level, is a single-number representing the fluctuating sound level in decibels (dB) over a specified period of time. It is a sound-energy average of the fluctuating level and is equal to a constant unchanging sound of that dB level. Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver. In order to evaluate noise in a way that considers periodic fluctuations experienced throughout the day and night, a concept termed "community noise equivalent level" (CNEL) was developed. The CNEL scale represents a time-weighted 24-hour average noise level based on the A-weighted equivalent (L_{eq}) sound level. CNEL accounts for the increased noise sensitivity during the evening hours (7 p.m. to 10 p.m.) and nighttime hours (10 p.m. to 7 a.m.) by adding five dB to the average sound levels occurring during the evening hours and 10 dB to the sound levels occurring during nighttime hours. Similarly to the CNEL noise metric, the Level Day Night (L_{dn}, also known as DNL) is a 24-hour weighted average noise metric, with the difference being that the daytime hours are from 7 a.m. to 10 p.m., and thus there is no evening period. Typically the CNEL and L_{dn} levels differ by only a few tenths of a decibel, and are thus treated as being functionally equivalent.

Vibration Characteristics

In contrast to airborne noise, groundborne vibration is not a common environmental problem. Some common sources of groundborne vibration are construction activities such as blasting, pile driving, and operating heavy earth-moving equipment. Trains and similar rail vehicles can also produce vibration. It is unusual for vibration from sources such as buses and trucks to be perceptible. In quantifying vibration, the peak particle velocity (ppv) is most

frequently used to describe vibration impacts and is typically measured in inches per second (in/sec). Vibration levels that may cause annoyance to humans are described using the vibration decibel (VdB). Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source.

Existing Noise Conditions

Dudek conducted noise measurements in the project vicinity in March 2019, to characterize the existing noise environment of the adjacent Vaca Valley Hotel project, located directly north of the proposed project site. This data is also referenced for this analysis. Potential short-term construction noise and vibration impacts on nearby land uses will be evaluated based on noise measurements from the Vaca Valley Hotel project, construction equipment data, and noise modeling methods developed by the Federal Highway Administration (FHWA) and the Federal Transit Agency (FTA), and the California Department of Transportation (Caltrans).

The currently vacant project site is located adjacent to East Monte Vista Avenue and close to Vaca Valley Parkway; these two roadways represent the principal noise sources affecting the project vicinity. Surrounding properties are zoned for commercial and warehouse/industrial uses; the closest noise-sensitive uses (residences) are located approximately 0.4 mile west of the project site.

As part of the Vaca Valley Hotel project, Dudek conducted noise measurements in the project vicinity in March 2019, to characterize the existing noise environment. The daytime, short-term (1 hour or less) attended sound level measurements were taken with a Rion NL-32 sound-level meter. This sound-level meter meets the current American National Standards Institute (ANSI) standard for a Type 1 precision sound-level meter. The calibration of the sound level meter was verified before and after the measurements were taken, and the measurements were conducted with the microphone positioned approximately five feet above the ground.

Noise measurements were taken at the following locations: ST1 along East Monte Vista Avenue, directly adjacent to the eastern boundary of the proposed project site; ST2 along Vaca Valley Parkway, between the Vaca Valley Hotel site and the existing Solano County Water Agency site; and ST3 along Aviator Drive, directly adjacent to the southern boundary of the proposed project site. The measured average noise levels and manual traffic count data are presented in Table 3.13-2 (see also Appendix F). As shown in Table 3.13-2, the measured sound levels ranged from approximately 65 dBA Leq at ST1 to approximately 67 dBA Leq at ST2 and ST3.

Table 3.13-2. Measured Average Traffic Sound Level and Manual Traffic Count Results

Site	Traffic Noise Source	Date	Time	L_{EQ}[1]	Cars	MT[2]	HT[3]
ST1	E. Monte Vista Ave	3/21/2019	12:20 – 12:40 pm	**65 dBA**	136	5	7
ST2	Vaca Valley Parkway		12:00 – 12:10 PM	**67 dBA**	55	2	3
ST3	Aviator Drive		11:20 – 11:40 AM	**67 dBA**	76	1	1

Notes:
1 Equivalent Continuous Sound Level
2 Medium Trucks
3 Heavy Trucks
Temperature 63 degrees, overcast/cloudy, 2 mph southwesterly wind.

Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, and guest lodging are considered noise-sensitive. Sensitive receptors near the project site include the following:

- Single-family residential land uses located along Vaca Valley Parkway, west of Shelter Cove Drive and Allison Parkway, approximately 0.4 mile west of the project site.

The above sensitive receptors represent the nearest residential land uses with the potential to be impacted by construction and operation of the proposed project. Additional sensitive receptors are located further from the project site in the surrounding community and would be less impacted by noise and vibration levels from the proposed project.

Listed below are relevant policies from the City of Vacaville General Plan (City of Vacaville 2015a):

- **Policy NOI-P1.2:** Require that noise created by new transportation and non-transportation noise sources be mitigated, to the extent that is technically and economically feasible, to comply with the noise level standards of Table NOI-3. [Included below as Table 13.1-3]
- **Policy NOI-P4.1**: Preclude the generation of annoying or harmful noise through conditions of approval on stationary noise sources, such as construction and property maintenance activity and mechanical equipment.
- **Policy NOI-P4.2**: Require the following construction noise control measures:
  - Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
  - Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
  - Utilize “quiet” air compressors and other stationary noise sources where technology exists.
  - Limit hours of operation of outdoor noise sources through conditions of approval.

City of Vacaville Municipal Code

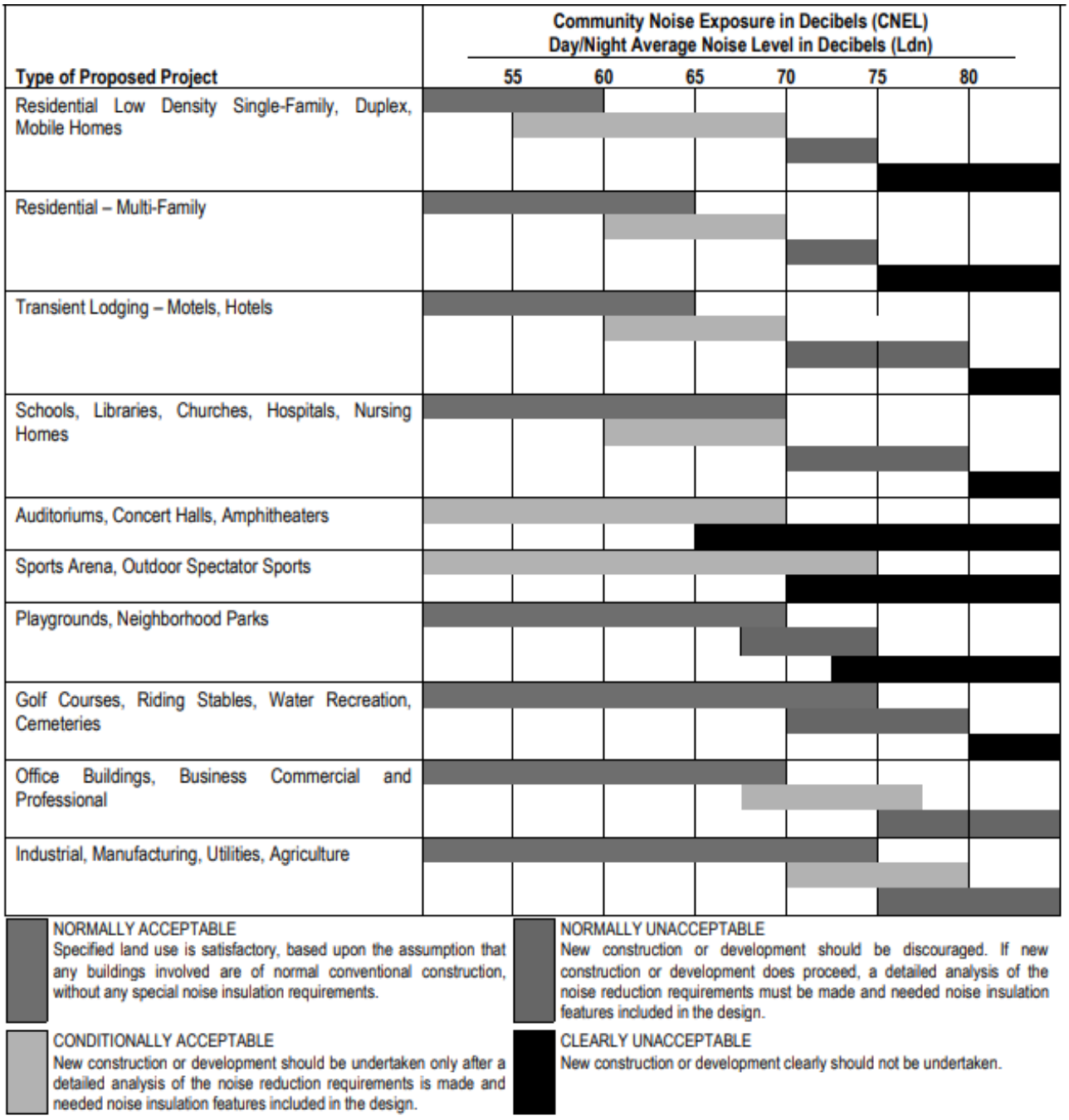
The City of Vacaville Municipal Code provides noise level limits for non-transportation (stationary) and mobile noise sources in an effort to ensure that city residents live in an applicable to the project are provided below:

> **14.09.127.090 Hours of Construction.**
>
> A. No construction or grading equipment shall be operated nor any outdoor construction or repair work shall be permitted within 500 feet from any occupied residence between dusk (one-half hour after sunset) and 7:00 a.m. Monday through Saturday, and no such grading or construction activities shall be allowed on Sundays or holidays except as provided herein:
>
> 1. Interior work which would not create noise or disturbance noticeable to a reasonable person of normal sensitivity in the surrounding neighborhood shall not be subject to these restrictions.

14.09.127.100 Hours of Operation.

A. Hours of operation may be regulated, as determined by the decision-maker, through the conditions of the project approval, in order to mitigate impacts on surrounding uses and ensure compliance with the provisions of this Title.

Table 13.1-3. (Table NOI-3 of the Vacaville Noise Element) Land Use Compatibility Standards for Community Noise Environments



Discussion

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

On-site noise-generating activities associated with the proposed project would include short-term construction as well as long-term operational noise associated with mechanical equipment operation and parking lot activities. The proposed project would also generate off-site traffic noise along various roadways in the area. These potential impacts are discussed below.

Construction Noise (Short-Term Impacts)

Construction noise and vibration are temporary phenomena. Construction noise and vibration levels vary from hour to hour and day to day, depending on the equipment in use, the operations performed, and the distance between the source and receptor.

The construction activities for the proposed project would include site preparation and grading, building construction, paving of the on-site parking areas, and application of architectural coatings. Typical noise levels associated with construction equipment is shown in Table 3.13-4. Noise impacts from construction activities are a function of the noise generated by construction equipment, equipment location, noise-sensitivity of nearby land uses, and timing and duration of the construction activities.

Table 3.13-4. Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Roller	74
Concrete vibrator	76
Pump	76
Saw	76
Backhoe	80
Air compressor	81
Generator	81
Compactor	82
Concrete pump	82
Crane, mobile	83
Concrete mixer	85
Dozer	85
Grader	85
Impact wrench	85
Loader	85
Pneumatic tool	85
Jackhammer	88
Truck	88
Paver	89

Source: FTA 2006.

The City regulates construction noise by restricting the allowable hours of construction for construction sites within 500 feet of existing residences. Section 14.09.127.090 (Hours of Construction) of the City's Municipal Code prohibits construction between dusk (one-half hour after sunset) and 7:00 a.m. Monday through Saturday, as well as on Sundays or holidays, where residences are within 500 feet. The nearest sensitive receptors are single-family homes 0.4 mile (2,112 feet) west of the project site. Because the closest residences are more than 2,000 feet from the project site, the schedule restrictions would not apply to the project. Also, construction noise levels at the closest residences are anticipated to be similar to, and probably below, traffic noise exposure levels at the closest residences. Therefore, temporary construction-related noise impacts for the proposed project would be less than significant.

Operational Noise (Long-Term Impacts)

Long-term operational noise associated with the proposed project would include noise from on-site operations and parking lot activity and an increase in traffic, discussed below.

On-Site Parking Lot Noise Levels

The proposed project would include a surface parking lot. Noise sources from parking lots include car alarms, door slams, radios, and tire squeals. These sources typically range from about 30 to 66 dBA at a distance of 100 feet (Gordon Bricken & Associates 1996), and are generally short-term and intermittent. Parking lots have the potential to generate instantaneous noise levels that exceed 60 dBA depending on the location of the source; however, noise sources from the parking lot would be different from each other in kind, duration, and location, so that the overall effects would be separate and in most cases would not affect noise-sensitive receptors at the same time. Therefore, noise generated from the proposed parking lot would be less than significant.

Off-Site Traffic Noise

The proposed project would generate traffic along adjacent roadways including Vaca Valley Parkway, East Monte Vista Street, and Aviator Street. Potential vehicular noise effects for the Vaca Valley Hotel project were assessed using the Federal Highway Administration's Traffic Noise Model version 2.5 (FHWA 2004). The Traffic Impact Study for the Vaca Valley Hotel project determined that project trip generation would consist of 114 total trips during the AM peak hour and 121 trips during the PM peak hour, with a daily total generation of 1,496 trips. The Traffic Impact Analysis Memorandum prepared by Omni-Means in April 2018 for the proposed project (see Section 3.17, Transportation) determined that trip generation would consist of 103 AM peak hour trips and 107 PM peak hour trips, with a daily total generation of 978 trips. Because the proposed project would generate less AM, PM, and total daily trips as compared to the Vaca Valley Hotel project, the noise model results from the Vaca Valley Hotel project are appropriate as conservative estimates for the proposed project. The noise model results are summarized in Table 3.13-5. For the purposes of the noise analysis, impacts are considered significant when they cause an increase of five dB from existing noise levels.

Table 3.13-5. Traffic Noise Modeling Results (Vaca Valley Hotel Project)

Modeled Receptor	Existing Noise Level (dBA CNEL)	Existing with Project Noise Level (dBA CNEL)	Probable developments without Project Noise Level (dBA CNEL)	Probable developments with Project Noise Level (dBA CNEL)	Maximum Noise Level Increase (dB)
ST1, East Monte Vista Roadside	68.9	69.6	69.5	70.1	0.7
ST2, Vaca Valley Parkway Roadside	63.0	63.1	63.0	63.1	0.1

Source: Appendix F.

Table 3.13-5 shows that the maximum noise level increase would be less than 1 dB at ST1 and ST2. A change in noise level of 1 decibel is not an audible change in the context of community noise. While the noise modeling results do not include ST3 along Aviator Drive (as the Vaca Valley Hotel project was not anticipated to generate traffic along this street) it can be reasonably assumed that the noise level increase would be similar to ST1 and ST2. Based upon these results, off-site traffic noise impacts associated with the proposed project would be less than significant.

Noise associated with project construction and operation would not exceed any applicable thresholds and impacts would be **less than significant.**

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

Construction activities that might expose persons to excessive ground-borne vibration or ground-borne noise could cause a potentially significant impact. Ground-borne vibration information related to construction activities has been collected by the California Department of Transportation (Caltrans 2013). Information from Caltrans indicates that continuous vibrations with a peak particle velocity (PPV) of approximately 0.1 inch/second begin to annoy people, while structural damage to modern buildings can begin at 0.2 inch/sec PPV. Heavier pieces of construction equipment, such as bulldozers, generate vibration of approximately 0.089 inch/second PPV or less at a distance of 25 feet (Caltrans 2013). Ground-borne vibration is typically attenuated over short distances. The nearest commercial building to the project site is the adjacent Solano County Water Agency, which is separated by a minimum of 60 feet from the construction zone of the project site, while the nearest residential receptor is approximately 0.4 mile, or 2,112 feet away. Both of these vibration levels would be well below both the 0.2 inch/sec PPV structural damage and 0.1 inch/sec human annoyance threshold. Vibration is very subjective, and some people may be annoyed at continuous vibration levels near the level of perception (or approximately 0.01 inch/second PPV). However, this level of sensitivity is unlikely to exist in the surrounding developments for employees in a commercial setting, where exposure would be during the day and for a relatively short duration while site preparation activities are occurring for the project. Project vibration impacts would therefore be **less than significant.**

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

A small portion at the southeastern portion of the project is located within the 55 CNEL noise contour in the Nut Tree Airport ALUCP. The ALUCP indicates that within the 50-55 CNEL noise contour, commercial and industrial land uses such as offices and warehousing are "clearly acceptable," meaning that the activities associated with these land uses can be carried out with essentially no interference from the noise exposure (Solano County ALUC 1988). Thus, impacts would be **less than significant.**

Mitigation Measures

None required.

3.14 Population and Housing

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

Environmental Setting

The City's most recent Housing Element was adopted on May 12, 2015, and includes a housing needs assessment that identifies current and projected housing needs, as well as policies to accommodate affordable housing development for a range of income and household types (City of Vacaville 2015a). The latest Department of Finance (DOF) population estimate lists the population, as of January 1, 2019, for Solano County as 413,344 and for the City as 98,807 (DOF 2019).

The General Plan includes growth projections through 2035 of 9,680 new dwelling units, 26,500 new residents, 9,720 new jobs, 1 million sf of new commercial space, 1.1 million sf of new office space, and 2.1 million sf of new industrial space (City of Vacaville 2013, Table 4.12-3). The Association of Bay Area Governments (ABAG) projections for development by 2035 in the City includes 4,550 new households, 11,400 new residents and 13,730 new jobs between 2010 and 2035 (City of Vacaville 2013, p. 4.12-6). The City's 2035 projections were based on actual development trends in the City instead of the ABAG's projections. The City chose to not use the ABAG projections because they did not accurately reflect past development trends and reflected a more limited amount of residential development through 2035 (City of Vacaville 2013, p.3-42).

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy LU-P3.2:** Manage growth so that the quantity and quality of public services and utilities provided to existing businesses and residents will not drop below required levels of service because of new development, except when required findings related to levels of service are made. While existing development bears some responsibility to fund improvements that will resolve such deficits, ensure that new development also funds its fair share of the cost of maintenance and depreciation of facilities.
- **Policy LU-P3.4:** Do not approve new development unless there is infrastructure in place or planned to support growth.
- **Policy LU-P4.1:** Strive to maintain a reasonable balance between potential job generation and the local job market with a goal of one job for each employed resident.
- **Policy H.1 - I17:** Implement California energy conservation standards.
- **Policy H.1 - I18:** Implement the California Green Building Standards Building Code.
- **Policy H.1 - I19:** Encourage energy-conserving development patterns.
- **Policy H.1- I20:** Encourage energy conservation through energy-reducing landscaping, orientation and configuration of buildings, site, and other factors affecting energy use.

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

As noted above, future buildout of the City's General Plan through 2035 includes 9,720 new jobs, 1 million sf of new commercial space, 1.1 million sf of new office space, and 2.1 million sf of new industrial space (City of Vacaville 2013, Table 4.12-3). The proposed project includes development of two speculative warehouses, with vehicular, trailer, and bicycle parking spaces. As the proposed project is speculative in nature, it is unknown the number of employees the project would generate. Nonetheless, the site is required to comply with City's General Plan, Golden Hills Business Park Policy Plan, and City's Zoning Ordinance. The project would not induce unplanned population growth within the vicinity of the project site. Impacts would be **less than significant**.

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

Much of the City's future development would occur as residential or non-residential uses are developed on agricultural, vacant or underutilized parcels (City of Vacaville 2013, p. 4. 12-9). The project site is currently vacant and does not contain any buildings or structures. Development of the proposed project would not displace people or housing, thus **no impact** would occur.

Mitigation Measures

None required.

3.15 Public Services

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

Environmental Setting

The Vacaville Fire Department (VFD) provides fire and emergency medical services to approximately 28 square miles within the City, as well as emergency medical services to approximately 160 square miles of unincorporated county land surrounding the City (City of Vacaville 2015a, p. PUB-1-2). The VFD has administrative offices at City Hall, as well as five existing stations in the City; Station 73 located at 650 Eubanks Court is the closest station to the project site, located approximately 0.25 mile west (City of Vacaville 2013, Table 4.13-1). The VFD currently employs 97 fire prevention, suppression, investigation, and administration personnel (VFD 2020). The VFD's 2018 Annual Report states that VFD's Operations Division is near full staffing. The VFD currently possesses seven engines, including two reserve engines, six ambulances, one aerial truck, three special callout units, and five brush units (VFD 2018). VFD plans to develop two new fire stations and relocate one existing fire station. The two new locations are planned for the Lower Lagoon Valley (Station 76) and Orange Drive just east Leisure Town Road (Station 77). Construction of Station 77 would be contingent on the relocation of Station 73. VFD's adopted standard response time and success rate is 7 minutes for 90% of calls, which refers to the time period between VFD notification and arrival on the scene of the incident within the City limits (City of Vacaville 2013, p. 4.13-12). VFD has mutual aid agreements with Dixon, Fairfield and the Vacaville Fire Protection District for provision of automatic aid response in designated areas.

The Vacaville Police Department (VPD) provides law enforcement services to the City and includes a 24/7 communications center, crime suppression and prevention, investigations, traffic patrol and emergency services. The single main VPD police station is located at 660 Merchant Street, adjacent to Vacaville City Hall, and is approximately 5.1 miles southwest of the project site. VPD employs 173 full time employees along with utilizing many civilian volunteers (VPD 2020). VPD standards for average response time are 6 minutes and 1 second for Priority I calls and 16 minutes and 28 seconds for Priority II calls. Currently, the VPD has an average response time of exactly 6 minutes for Priority I calls and 15 minutes for Priority II calls (City of Vacaville 2013, p. 4.13-3). Vacaville receives assistance with police services from the Solano County sheriff's office approximately 10-15 times per year (City of Vacaville 2015a, p. PUB-5).

The project site is located within the Vacaville Unified School District (VUSD). The nearest school to the project site is Browns Valley Elementary School, located approximately 1.5 miles southwest of the project site.

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy LU-P3.2:** Manage growth so that the quantity and quality of public services and utilities provided to existing businesses and residents will not drop below required levels of service because of new development, except when required findings related to levels of service are made. While existing development bears some responsibility to fund improvements that will resolve such deficits, ensure that new development also funds its fair share of the cost of maintenance and depreciation of facilities.
- **Policy LU-P3.4:** Do not approve new development unless there is infrastructure in place or planned to support growth.
- **Policy PUB-P1.1:** Prohibit any development that will not, even with identified mitigation measures, maintain standards for fire, rescue and emergency medical service. All service standards shall be met prior to project occupancy. Allow exceptions to these service standards only when there are overriding findings of special circumstances or economic or social benefits.
- **Policy PUB-P1.2:** Ensure that new development pays a fair and equitable amount to offset the costs for fire, rescue, and emergency medical response services by collecting impact fees, requiring developers to building new facilities, and requiring the new areas to create or annex into a Community Facilities District.
- **Policy PUB-P1.4:** Identify and mitigate fire hazards during the project review and approval process.
- **Policy PUB-P1.5:** Require that new development satisfy fire flow and hydrant requirements and other design requirements as established by the Fire Department.
- **Policy PUB-P2.2:** Prohibit any development that will not, even with identified mitigation measures, maintain standards for law enforcement service. All service standards shall be met prior to project occupancy. Allow exceptions to these service standards only when there are overriding findings of special circumstances or economic or social benefits.
- **Policy PUB-P2.3:** Ensure that new development pays a fair and equitable amount to offset the costs for law enforcement services by collecting impact fees and requiring the creation of or annexation into a Community Facilities District.
- **Policy PUB-P2.4**: Identify and mitigate law enforcement hazards during the project review and approval process.
- **Policy PUB-P2.5**: Require physical site planning that prevents crime by locating walkways, open spaces, landscaping, parking lots, parks, play areas, and other public spaces in areas that are visible from buildings and streets.

Listed below are relevant development standards from the Vacaville-Golden Hills Business Park Policy Plan (City of Vacaville 2018):

- Development shall provide for necessary public facilities and services.

Discussion

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

Fire protection?

The proposed project includes the development of two warehouses. The warehouses would be constructed to current CBC and City building standards, which include a requirement that all buildings include sprinklers. The closest fire station to the project site is Station 73, located at 650 Eubanks Court approximately 0.25 mile to the west. The VFD's adopted standard response time and success rate is 7 minutes for 90% of calls, which refers to the time period between VFD notification and arrival on the scene. Due to the proximity of Station 73 to the project site, it is anticipated response time would be less than 7 minutes. Compliance with General Plan Policies LU-P3.2 and PUB-P1.1 would help minimize fire risks and ensure the adequate provision of fire protection and emergency medical response services to serve the project. The project would be required to pay any impact fees to offset the cost of fire and emergency medical services, in compliance with General Plan policy PUB-P1.2. The proposed project would comply with all General Plan policies related to reducing fire risks, including payment of any required impact fees and would not result in any physical impacts associated with constructing a new fire station, or expanding the current station. Therefore, impacts would be **less than significant.**

Police protection?

The VPD would be the service provider for the proposed project. The General Plan EIR determined that in order to maintain the City's existing staffing ratio and adopted response standards, the VPD would need to add 30 officers, with associated equipment and vehicles. The existing VPD facilities would be sufficient to support additional officers and serve future development, including the project (City of Vacaville 2013, p. 4.13-4). The VPD police station is located at 660 Merchant Street, approximately 5.1 miles southwest of the project site. Compliance with General Plan policies would ensure adequate police staffing is available to serve the project. The project would be required to pay any required impact fees to offset the cost of law enforcement services under General Plan policy PUB-P2.3. The proposed project would comply with all General Plan policies related to reducing the potential for an increase in crime and maintaining adequate law enforcement services, which includes payment of any applicable impact fees, per policy PUB-P2.3. In addition, the increased demand for police services would not require constructing a new police substation or expanding the City's main police station. Therefore, impacts would be **less than significant.**

Schools?

All new residential and commercial development in the City is required to pay a developer impact fee to fund school improvement projects (City of Vacaville 2013, p. 4.13-30). Payment of development fees is adequate to fully mitigate the impacts of new development on school facilities under Section 65996 of the California Government Code. The project would pay required developer fees to mitigate impacts to school facilities. Therefore, impacts would be **less than significant.**

Parks?

Impacts to parks and the provision of parkland is evaluated in Section 3.16, Recreation, below. The anticipated impacts would be **less than significant.**

Other public facilities?

The proposed project would not impact other public services including libraries and parks (City of Vacaville 2013, p. 4.13-35) because the project would serve the existing population of the City. The project may provide the City with employment opportunities, thus creating new jobs. However, the projected growth is accommodated within the 2035 City's General Plan future buildout (see Section 3.14, Population and Housing, above). Compliance with General Plan policies would ensure that adequate public services and facilities are available. The project would comply with General Plan policies related to ensuring adequate provision of other public facilities including library facilities and would pay all required development fees. Therefore, impacts would be **less than significant.**

Mitigation Measures

None required.

3.16 Recreation

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

Environmental Setting

The General Plan classifies park and recreational facilities into six categories: neighborhood parks, community parks, regional parks, accessible open space, special purpose facilities and bikeways, multi-use trails, and nature trails (City of Vacaville 2015a, p. PR-1-3). Development of parks, recreation and open space facilities in the City is guided by the City's Comprehensive Parks, Recreation, and Open Space Master Plan adopted in 1992. Funding for acquisition and development of parks is primarily derived from park development impact fees, which are paid by residential development and not required for commercial, office or industrial projects. Operation of City parks is provided by the Community Services Department and funded through the City's General Fund and user fees, while

maintenance of City parks is provided by the City's Public Works Department and funded primarily through the General Fund and numerous maintenance districts (City of Vacaville 2015a, p. PR-9).

The nearest existing neighborhood parks to the project site are Corderos Park, located approximately 2.1 miles northeast, and Ridgeview Park, located approximately 1 mile southwest. The only regional park in the project area is Lagoon Valley Regional Park, located approximately 5.1 miles southwest of the project site (City of Vacaville 2015a, Figure PR-1).

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy PR-P2.7:** Encourage new non-residential development that would bring workers to Vacaville to incorporate park and recreation facilities into the project design.

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?

The proposed project involves the development of two warehouses. While the proposed project is speculative in nature, it is not expected to induce substantial population growth that would increase demand for existing park or recreational facilities or require the construction of new or expansion of existing recreational facilities. The project does not include housing or any other features that would induce substantial residential growth. Therefore, impacts related to existing parks and recreational facilities would be **less than significant**.

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?

The proposed warehouse would be used for industrial and commercial purposes and does not include recreation facilities or require construction or expansion of recreational facilities. Therefore, **no impact** would occur.

Mitigation Measures

None required.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII.TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Environmental Setting

A Traffic Impact Analysis Memorandum (Memorandum) was prepared by Omni-Means in April 2018, to assess transportation impacts associated with the proposed project. The Memorandum includes quantification of the trip generation and trip distribution associated with the proposed project, and the resulting impacts on existing weekday AM and PM peak hour intersection operations. The proposed project will have one full access driveway along Cessna Drive, six full access driveways along Aviator Drive, and two right in, right out driveways along East Monte Vista Avenue. The proposed project would generate approximately 103 AM and 107 PM peak hour trips. The proposed trip distribution percentages are 75% to/from the east via Vaca Valley Parkway, and 25% to/from the west via Vaca Valley Parkway. Consistent with the City of Vacaville's Traffic Impact Analysis guidelines, the following scenarios were analyzed for the proposed project:

- Existing Conditions
- Existing Plus Project Conditions
- Short Term Conditions
- Short Term Plus Project Conditions

Existing conditions quantify the current traffic operations at the study locations.

Existing Plus Project conditions refer to the analysis scenario in which traffic impacts associated with the proposed project are investigated in comparison to the *Existing* conditions scenario. Within this scenario, the project generated peak hour traffic volumes have been added to the *Existing* conditions volumes to obtain the *Existing Plus Project* volumes.

Short Term conditions refer to the analysis scenario in which traffic impacts associated with the approved projects near the proposed project location are investigated in comparison to the *Existing* conditions scenario. Within this scenario, the approved project generated peak hour traffic volumes have been added to the *Existing* conditions volumes to obtain the *Short Term* volumes.

Short Term Plus Project conditions refer to the analysis scenario in which traffic impacts associated with the approved and proposed projects are investigated in comparison to the *Short Term* conditions scenario. Within this scenario, the approved project generated peak hour traffic volumes have been added to the *Short Term* conditions volumes to obtain the *Short Term Plus Project* volumes.

The City of Vacaville General Plan, adopted in August 2015, has the following policies relating to level of service and traffic congestion:

- **Policy TR-P3.1:** Strive to maintain LOS C as the LOS goal at all intersections and interchanges to facilitate the safe and efficient movement of people, goods, and services. Design improvements to provide LOS C conditions based on the City's most recent 20+ year traffic forecast. At unsignalized intersections, maintain an overall LOS C standard with the worst approach to the intersection not exceeding LOS D.
- **Policy TR-P3.2:** At signalized and all-way stop control intersections, LOS mid-D shall be the LOS significance threshold. At two-way stop control intersections, LOS mid-E shall be the LOS significance threshold on the worst approach.
- **Policy TR-P3.4:** The City may allow LOS above the established LOS significance thresholds for a particular location as an interim level of service where improvements are programmed by the City that will improve the service to an acceptable level.
- **Policy TR-P3.5:** The City may allow LOS above the established LOS significance thresholds for a particular location on the basis of specific findings described in Chapter 14.13 of the Vacaville Land Use and Development Code, Traffic Impact Mitigation Ordinance.

Consistent with City policy and the General Plan, this study will consider LOS "Mid-D" (<45 seconds of delay) as the standard acceptable threshold for the intersection service levels.

The City has not yet adopted vehicle miles traveled (VMT) guidelines in accordance with CEQA Guidelines section 1064.3, subdivision (b). The project is currently proposing two warehouse buildings, which are typically low trip generators as compared to commercial uses and result in a lower than City-wide average VMT. Additionally, the General Plan amendment from CG to IP would further reduce the project's VMT below what was originally contemplated for the site.

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

The Memorandum analyzed one critical study intersection, E. Monte Vista Avenue/Crocker Drive and Vaca Valley Parkway, for analysis of weekday AM and PM peak hour conditions. It was determined that there would be no significant impacts to the study intersection caused by the proposed project under Existing plus Project and Short Term plus Project conditions. Under all conditions, the peak hour intersection operations did not exceed the standard acceptable threshold for intersection service level (LOS "Mid-S, or <45 seconds of delay). The study intersection was also analyzed within the City's General Plan EIR, which again found that operations would not be delayed up to the standard acceptable threshold upon 2035. Thus, impacts to the circulation system would be less than significant.

The proposed General Plan includes policies that provide for an integrated network of bicycle and pedestrian facilities, as well as for the needs of transit users. The General Plan calls for the construction and enhancement of a bike route network (Policies TR-P8.1 and TR-P8.2) to encourage non-motorized transport between neighborhoods and between neighborhoods, in addition to key destinations for commute, recreational, and other purposes (Policy TR-P8.5). There are also requirements to include transit amenities unless justification for nonprovision is provided (Policy TR-P7.3), bike paths or bike lanes when appropriate (Policy TRP8.4), and adequate public and private bicycle parking and storage facilities (Policy

TR-P8.9). The proposed project includes bike racks and is designed to not impeded with any transit, bicycle, or pedestrian facilities and impacts would therefore be **less than significant**.

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

According to CEQA Guidelines section 15064.3 Subdivision (b)(1), a project's vehicle miles traveled or VMT that exceeds an applicable threshold of significance may indicate a significant impact. Projects that decrease VMT in the project area compared to existing conditions should be considered to have a less-than-significant transportation impact. The City has not yet adopted significance thresholds for VMT. The proposed project would include development of an undeveloped parcel; thereby potentially increasing VMT in comparison to existing conditions.

Parcels 0133-210-290 and 0133-210-300 are proposing a General Plan amendment from commercial to warehouse. The remaining parcels on the site have a General Plan designation of industrial park, which is consistent with a warehouse use.

The project is currently proposing two warehouse buildings, totaling up to 520,000 sf. Warehouse buildings are typically low trip generators as compared to commercial uses and result in a lower than City-wide average VMT. Additionally, the General Plan amendment of two of the parcels from commercial to warehouse would further reduce the project's VMT.

The project site is located within the Vacaville-Golden Hills Business Park Policy Plan, which has established land use and infrastructure policies regarding future planned development within the plan area such as the proposed project. The project is consistent with Policy Plan. Accordingly, the proposed project would not conflict with the City's General Plan, zoning ordinance, or the Vacaville-Golden Hills Business Park Policy Plan. Therefore, the impact would be considered **less than significant**.

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

The proposed project includes construction of two warehouses on an undeveloped site. Access to the site would be provided via a driveway at Cessna Drive, with six full access driveways along Aviator Drive, and two right in, right out driveways along E. Monte Vista Avenue. There is adequate site access and the project does not include any design features that could cause hazards. Thus, there would be **no impact.**

d) Would the project result in inadequate emergency access?

The City's General Plan contains policies and implementing actions that ensure efficient circulation and adequate access are provided in the city, which would help facilitate emergency response. These policies address level of service standards, the integrated roadway network, and arterial roadway designs. Furthermore, Action TR-A5.2 of the proposed General Plan requires the City to improve emergency vehicle response times. The proposed project would comply with the General Plan and would provide emergency access required by the City. The project includes two points for ingress/egress and has been designed to meet the fire department's requirements for emergency access. With consideration of the above, impacts would be **less than significant.**

Mitigation Measures

None required.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Environmental Setting

As discussed in Section 3.5, Cultural Resources, a Cultural Resources Inventory Report was completed for the project site by SAS in February 2020, with the intent of identifying any potential impacts to prehistoric or historic resources (see Appendix C). Native American cultural resources are not limited to physical archaeological resources with scientific significance, but could also include cultural landscapes, tribal cultural resources, and non-unique archaeological resources. The Vacaville area was a part of the ancestral territory of Native Americans, and there is the potential for unrecorded tribal cultural resources (TCRs) to be present in the area (City of Vacaville 2015a, p. COS-21-22).

The project site is currently undeveloped and does not contain any buildings or structures that could be included on the City's list of historic buildings.

The project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to "tribal cultural resources" as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the project. In compliance with AB 52, the City sent letters to all NAHC-listed traditionally geographically affiliated tribal representatives that have requested project notification. Only one tribe, the Yocha Dehe Wintun Nation responded that the project site is within their aboriginal territories and noted there are no known cultural resources near the project site. The Yocha Dehe Wintun Nation requested to be contacted in the event new information becomes available or if any cultural resources are found, and also recommended cultural sensitivity

training for personnel prior to the start of the project. The letter did not request formal consultation with the City. The City considers consultation with the Yocha Dehe Wintun Nation complete.

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy COS-P6.1:** Consult with those Native American Tribes with ancestral ties to the Vacaville city limits regarding proposed new development projects and land use policy changes.
- **Policy COS-P6.3:** Require that areas found to contain significant historic or prehistoric artifacts be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation.
- **Policy COS-P6.4:** Require that if cultural resources, including archaeological or paleontological resources, are uncovered during grading or other on-site excavation activities, construction shall stop until appropriate mitigation is implemented.

In addition, Health and Safety Code Section 7050.5 states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify NAHC within 24 hours of this identification.

a) 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:

i) 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)?

The project site is currently undeveloped and does not contain any buildings or structures that would require removal that could be included on the City's list of historic buildings, pursuant to section 5020.1(k) of the Public Resources Code. In addition, in the letter received from the Yocha Dehe Wintun Nation on March 16, 2020, the site is not known to contain any tribal cultural resources. Therefore, there would be **no impact**.

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

Consistent with General plan policy COS-P6.1, the City complied with the requirements of AB 52 and sent letters to all tribes requesting notification. The Yocha Dehe Wintun Nation responded that the project site is within their aboriginal territories, but did not request formal consultation with the City, nor did they indicate if the site has the potential to contain any tribal cultural resources (TCR). During site disturbance, specifically site clearing, grading and trenching there is the potential for a TCR to be unearthed that could be considered eligible for listing in the California Register, per Section 5024.1 of the Public Resources Code. In addition, there is the potential for Native American remains to also be unearthed. Mitigation Measures CUL-1 and CUL-2 (see Section 3.5, Cultural Resources) establish the process to follow in the event any archeological or cultural resources are discovered during construction or in the event human

remains are unearthed. With implementation of Mitigation Measures CUL-1, CUL-2 and TCR-1 and TCR-2, impacts would be **less-than-significant with mitigation.**

Mitigation Measures

Mitigation Measure TCR-1 requires cultural sensitivity training for construction personnel prior to the start of the project and Mitigation Measure TCR-2 establishes specific protocol to follow in the event TCRs are present. Compliance with these measures would reduce project impacts to less than significant.

Mitigation Measure TCR-1: Prior to project construction either a representative from the Yocha Dehe Wintun Nation (Tribe) or an archeologist approved by the Tribe shall meet with construction personnel to conduct cultural sensitivity training.

Mitigation Measure TCR-2: While no TCRs have been identified that may be affected by the project, the following approach for the inadvertent discovery of TCRs has been prepared to ensure there are no impacts to unanticipated resources. Should a potential TCR be inadvertently encountered, construction activities near the encounter shall be temporarily halted and the City notified. The City shall notify the Yocha Dehe Wintun Nation and any other Native American tribes that have been identified by the NAHC to be traditionally and culturally affiliated with the geographic area that includes the project site. If the unanticipated resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in Mitigation Measure CUL-1. If the City determines that the potential resource appears to be a tribal cultural resource (as defined by PRC Section 21074), any affected tribe shall be provided a reasonable period of time to consult with the City and make recommendations regarding future ground disturbance activities, as well as the treatment and disposition of any discovered tribal cultural resources. Depending on the nature of the potential resource and Tribal recommendations, review by a qualified archaeologist may be required. Implementation of proposed recommendations shall be made based on the determination of the City that the approach is reasonable and feasible. All activities shall be conducted in accordance with current regulatory requirements.

3.19 Utilities and Service Systems

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the 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?	☐	☐	☒	☐

Environmental Setting

Water

The City has three primary water sources: the Solano Project, State Water Project (SWP) water and settlement water from the North Bay Aqueduct (NBA), and groundwater sources (City of Vacaville 2015a). From the Solano Project, the City is entitled to 5,750 acre-feet per year (AFY) of water through its own annual allocation (entitlement) from Solano County Water Agency (SCWA) and an additional allocation of 8,625 AFY from SID through a master water agreement executed in 1995 and amended most recently in 2018 (City of Vacaville 2013). The rest of the City's water supply, including groundwater, recycled water, settlement water, and SWP project, totals 27,278 AFY (City of Vacaville 2013).

Two water treatment plants produce water for the City of Vacaville: the North Bay Regional Water Treatment Plant (NBR Plant) and the Diatomaceous Earth Water Treatment Plant (DE Plant). The NBR Plant, co-owned by both the City of Vacaville and the City of Fairfield, is operated by the City of Fairfield and has a design capacity of 40 mgd, of which the City of Vacaville is dedicated 13.3 mgd of the design capacity (City of Vacaville 2013). The Diatomaceous Earth (DE) Treatment Plant owned and operated by the City has a design capacity of 10 mgd but produces an average of 5.90 mgd.

In the City's General Plan EIR, it is stated that to meet Vacaville's 2035 production capacity demand, the NBR Plant would require an expansion to a treatment capacity of approximately 60 mgd by 2035. After expanding the Plant to a treatment capacity of 60 mgd, Vacaville would receive 24 MGD from the NBR Plant. This expansion would take effect in two phases: under the first phase, the NBR Plant would expand to 50 mgd, and the City's share would be 20 mgd; under the second phase, the NBR Plant would expand to buildout capacity of 60 mgd, and the City's share would be 24 MGD. In addition, the hours of production at the DE Plant may be increased if operationally feasible. The DE Plant could potentially produce approximately 11.3 MGD, which would offset some of the other treatment

capacity expansion needs to meet the maximum day water demand in 2035. If other treatment capacity expansions occur, this additional capacity from the DE Plant would not be needed (City of Vacaville 2013).

The proposed project would tie into the City's existing water lines located within Aviator Drive and East Monte Vista Avenue. These water lines would ensure adequate water pressure of 4,500 gallons per minute is provided, per the City's fire department water pressure requirements.

The City currently uses two sets of water demand factors (existing and growth) for planning and analysis of water supply and distribution systems. Existing demand factors are used to calculate the total existing water demand and growth factors are applied to developable areas. Water demand factors for land uses proposed by the project are included in Table 3.19-1, below. The proposed project would be approximately 8% office space and 92% warehouse space. The acreage in Table 3.19-1 was determined using the maximum project buildout of 520,000 sf, and the demand factors are from the City's 2018 Water System Master Plan (City of Vacaville 2018b). According to these demand factors, the project is expected to generate an indoor (potable) water demand of 12,428.7 gpd and an outdoor (irrigation) water demand of 4,688.1 gpd.

Table 3.19-1. Proposed Project Projected Water Demand

Land Use	Acreage	Growth Demand Factor (gpd/acre)		Total Water Use (gpd)	
		Potable	*Irrigation*	*Potable*	*Irrigation*
Industrial	10.98	1,055	385	11,583.9	4,227.3
Commercial Office	0.96	880	480	844.8	460.8
			Total	12,428.7	4,688.1

Source: City of Vacaville 2018b

Wastewater

The City maintains the wastewater collection system to areas surrounding the project site. The City owns and operates the Easterly Wastewater Treatment Plant (EWWTP) located east of the City and adjacent to the unincorporated Town of Elmira. The EWWTP has an average dry weather flow (ADWF) capacity of 15 mgd and a 55 mgd peak hour wet weather flow (City of Vacaville 2018). The average daily wastewater flow (ADWF) treated at the EWWTP is 7.5 mgd (City of Vacaville 2019a). In 2015, the City completed the necessary facility upgrades to the EWWTP that were required to comply with Waste Discharger Order (WDO) R5-2008-0055, NPDES Permit No. CA007769 and Time Schedule Order R5-2008-0056. Additional modifications to meet the current WDO R5-2014-0072-01 included denitrification improvements to meet effluent nitrate limits and construction of tertiary effluent filters to meet the California Code of Regulations Title 22 requirements. In January 2017, the final phase of planned improvements to the EWWTP in order to ensure compliance with the City's current NPDES permit and to ensure groundwater protection were implemented. These improvements included construction of a concrete lining of the emergency storage basin, repair of the northern biosolids drying bed, complete demolition of the north plant, and extension of the north plant containment wall (City of Vacaville 2019b). Additionally, the Expansion Project Facilities Plan, completed June 1998, established capacity requirements for the EWWTP through projected buildout conditions. The plan determined that the EWWTP would be designed to accommodate an ADWF of 21.4 mgd and a peak hour wet weather flow of 68.6 mgd at buildout year 2035 (City of Vacaville 2018).

The City's wastewater collection system consists of sewer lines ranging in diameter from 6- to 54-inches, seven City-maintained lift stations, and associated facilities (City of Vacaville 2013). Building 1 of the proposed project

would be served by two 6-inch sewer lines located at the south of the site. These sewer lines currently connect to two different existing sewer stubs at the northerly right-of-way line of Aviator Drive, and then connect to a sanitary sewer manhole and a 12-inch City line that flows to the east. Building 2 would connect to a single 6-inch sewer line located on the east side of the site. The service connects to an existing 6-inch sanitary sewer stub at the west right-of-way line of East Monte Vista Avenue, which then connects to a sanitary sewer manhole and a 21-inch City line that flows to the south. Wastewater generation from the proposed project is shown in Table 3.19-2, using wastewater generation rates from the City's 2007 Sanitary Sewer System Design Standards.

Table 3.19-2. Proposed Project Projected Wastewater Generation

Building Use	Acreage	Non-residential, gpd/acre	Total Wastewater Generation (gpd)
Industrial/Business Park	10.98	2,000	21,960
Office	0.96	1,500	1,440
		Total	23,400

Source: City of Vacaville 2007.

As shown in Table 3.19-2, the project is expected to generate an average daily flow of approximately 23,400 gpd.

Storm Water

The City is located within four watersheds, Gibson Canyon Creek, Ulatis Creek, Horse Creek and Alamo Creek, all of which are part of the larger 150 square mile Ulatis Creek watershed (City of Vacaville 2013). The project site is located within the Upper Ulatis Creek Hydrologic Unit. The natural, unaltered portions of the creeks generally do not have adequate flow capacity to convey a 100-year storm event, while the modified natural channels were designed to provide a 10-year or 50-year level of protection (City of Vacaville 2013). The City has several regional detention basins, both natural and constructed, that reduce the flow in the creeks before reaching the City in order to reduce flooding. Storm drains within the City are required to convey the 10-year design flows and in order to accommodate surface drainage, the City requires that streets and public rights-of-way be designed to provide overland release of runoff for the 100-year storm (City of Vacaville 2013).

Solid Waste and Recycling

Recology Vacaville Solano provides solid waste, yard waste and recyclable materials collection in the City. Solid waste collected by Recology is deposited at the Hay Road Landfill (SWFP 48-AA-0002) located at 6426 Hay Road in Vacaville. The Hay Road Landfill has a permitted daily capacity of 2,400 tons and a total capacity of 37 million cubic yards (Cal Recycle 2019). The landfill receives approximately 136,066 tons of solid waste, of which 81,268 tons is from Vacaville (City of Vacaville 2013). The landfill has a remaining capacity of 30.4 million cubic yards and is projected to reach capacity in 2069 (Cal Recycle 2019). The Household Hazardous Waste Facility, operated by Recology Vacaville Solano, accepts disposal of household hazardous waste (City of Vacaville 2013). Recyclable material generated by the proposed project would be taken to the Recology Vallejo facility located in Vallejo. Unrecyclable solid waste would be taken to the Hay Road Landfill in Vacaville.

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy COS-P13.4:** Require new development to incorporate Best Management Practices (BMPs) for water use and efficiency and demonstrate specific water conservation measures.

- **Policy COS-P13.7:** Explore installation of dual plumbing in large, new commercial and/or residential developments to enable future use of recycled non-potable water generated on- or off-site.
- **Policy COS-P14.3:** Encourage pest-tolerant landscapes using native plants to minimize the need for pesticides.
- **Policy COS-P14.5:** Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from construction or from new impervious surfaces.
- **Policy PUB-P9.9:** Require construction sites provide for the salvage, reuse, or recycling of construction and demolition materials and debris.
- **Policy PUB-P12.1:** Prohibit any development that will not meet standards of water service. All service standards shall be met prior to project occupancy.
- **Policy PUB-**P12.3: Require new development provides fair share funding for all required water utility infrastructure and facilities.
- **Policy PUB-P12.4:** Require that new development designate water service corridor easements or routes when tentative maps or specific plans are approved.
- **Policy PUB-P13.4**: Plan, construct, and maintain wastewater treatment facilities to provide a level of wastewater treatment that meets State discharge requirements and to plan for expanding wastewater treatment capacity, consistent with anticipated needs.
- **Policy PUB-14.3:** Ensure that new development provides adequate funding for all wastewater infrastructure and facilities.
- **Policy PUB-P14.4:** Prohibit any development that will not maintain adequate standards for wastewater service. All wastewater service standards shall be met prior to project occupancy.
- **Policy PUB-P14.5:** Require that new development designate sewer easements or routes when tentative maps or specific plans are approved.
- **Policy SAF-P3.1:** Evaluate the storm drainage needs for each project; this evaluation should account for projected runoff volumes and flow rates once the drainage area is fully developed. In the Alamo Creek watershed upstream of Peabody Road (including Alamo, Laguna, and Encinosa creeks), require post-development 10-year and 100-year peak flows to be reduced to 90% of predevelopment levels. In the remainder of Vacaville, for development involving new connections to creeks, peak flow shall not exceed predevelopment levels for 10- and 100-year storm events.
- **Policy SAF-P3.2:** Continue to require development impact fees to fund necessary storm drainage improvements, including drainage detention basins.
- **Policy SAF-P3.4:** Require that new development designate storm drainage easements or routes when tentative maps or specific plans are approved.

Listed below are relevant development standards from the Vacaville-Golden Hills Business Park Policy Plan (City of Vacaville 2018):

- Buildings, site development and on site utilities for sewer, water, drainage, electrical and natural gas shall be designed and constructed in accordance with the Utility Master Plan, Uniform Building Code, adopted Fire Code and other adopted uniform codes as may amended by the Municipal Code.
- Water system improvements shall be designed and constructed in accordance with the City's Standard Specifications, Utility Master Plans, the adopted Fire Code and Vacaville General Plan.
- Sanitary sewer system improvements shall be designed and constructed in accordance with the City's Standard Specifications, Utility Master Plans and Vacaville General Plan.

- New buildings: Payment of benefit district fees shall be required when (a) a building permit is issued for a new building or (b) a property is subdivided. Until such time as the Benefit District is established, new uses will be allocated only 1,000 gpd/ac unless the estimated benefit district fee is paid.
- No transfers of capacity will be allowed except where the remaining capacity allocated to the contributing parcel is a minimum of 2,000 gpd/ac after the transfer.
- Drainage system improvements shall be designed and constructed in accordance with the City's Standard Specifications, Utility Master Plans and Vacaville General Plan.
- In addition to drainage detention responsibilities, area developers will be responsible to pay drainage conveyance fees. This fee funds stormwater system studies and monitoring and storm drain upgrade. The latter program includes channel improvements and storm drain upsizing to accommodate growth and water quality improvements to meet future regulatory requirements.

Discussion

a) Would the project 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?

The proposed project would result in a total estimated water usage of 17,117 gpd, or 0.02 mgd, as shown in Table 3.19-1. This is approximately 0.15% of the 13.3 mgd treatment capacity of the NBR Plant allotted to the City of Vacaville. Therefore, the project would not account for a substantial increase in demand for treated water from the City's water treatment facilities. The City has identified facilities improvements which include expansion of the NBR Plant, increased hours of production at the DE Plant, addition of three new main zone reservoirs and a new upper zone reservoir, construction of three new groundwater wells and replacement of five existing wells, and construction of new transmission and distribution system water mains (City of Vacaville 2013, p. 4.15-16-19). In January 2016, the City adopted a series of water service rate increases designed to generate an annual increase in revenues over the next five years. The City intends to combine the increased water rates, capital replacement funds, water connection fees, direct develop construction, and various long-term financing options, to raise the necessary revenue to fund and implement the construction of water production, treatment, and transmission facilities currently defined in the Capital Improvements Plan (CIP) and Water Master Plan. Because the proposed project would be adequately served by existing water treatment facilities, it would not require or result in the relocation or construction of new or expanded water treatment facilities.

According to the City's General Plan EIR, future development within the city is expected to increase wastewater flows to the Easterly WWTP to 16.2 mgd by 2035 (City of Vacaville 2013, p. 4.15-35). This would exceed the current treatment capacity of the plant by approximately 8%, and per the City's NPDES permit, the City is required to have a plan in place for expanding the Easterly WWTP by the time flows are expected to reach 15 mgd (City of Vacaville 2013, p. 4.15-35). Recent improvements to the Easterly WWTP allow for compliance with new NPDES permit discharge requirements, but did not add capacity over the current 15 mgd (City of Vacaville 2019). The City is required to plan, construct and maintain wastewater treatment facilities to meet State discharge requirements and to plan for expanding wastewater treatment capacity consistent with anticipated needs under General Plan Policy PUB-P13.4.

The proposed project would result in a total wastewater generation of 23,400 gpd, or .02 mgd. This equates to approximately 0.16% of the EWWTP's current ADWF capacity of 15 mgd. Additionally, the project would

pay development impact fees to fund infrastructure improvements for wastewater facilities. Thus, the project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities.

The proposed project would develop approximately 12 acres of currently undeveloped land within a 30-acre parcel, which would increase impervious surface and generate additional runoff. The City uses detention fees to provide stormwater detention with regional stormwater detention facilities in lieu of individual project-specific detention improvements. The proposed project would pay the City's detention fees to reimburse the City for transmission sized storm drain facilities.

The project would be required to pay connection and development impact fees as accepted mitigation for connecting the project to existing water, sewer, and storm drain facilities. The City uses these fees to fund expansion of water, wastewater, and storm drainage facilities necessary to serve new development. The proposed project site is also within Detention Fee Zone 1, which requires payment to fund the construction of detention basins to serve new development within the City (City of Vacaville 2020).

The project would tie into existing electrical, natural gas and telecommunication facilities that serve the area around the project site. The project would not require the construction or relocation of electric power, natural gas, or telecommunications facilities.

As the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities or require the expansion of existing facilities, the impact would be **less than significant**.

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

The General Plan EIR determined that the projected increase in water demand for future development in the City is 26.2 mgd or 29,350 AFY through 2035 (City of Vacaville 2013). The project would result in a total estimated water usage of 17,117 gpd, or 0.02 mgd, shown in Table 3.19-1. The City has indicated there is sufficient water to meet its customers' needs through 2040. This is based on continued application of the City's water conservation ordinance and on-going conjunctive use of water supply sources. The City's current UWMP addresses the current and projected use and distribution plans for recycled water, which would further reduce water usage demands for future development within the City (City of Vacaville 2016). The project would include energy efficient fixtures (e.g., showers, toilets), consistent with state and local requirements (e.g., Title 24) to reduce water demand. Landscaping would include drought tolerant plants and would conform to the City's Water Efficient Landscape Regulations. The City has sufficient water supplies available to serve the project during normal, dry, and multiple dry years, and impacts would be **less than significant**.

c) Would the project 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?

As described in item (a), the project would result in a total wastewater generation of 23,400 gpd, or .02 mgd. This equates to approximately 0.16% of the EWWTP's current ADWF capacity of 15 mgd. This is a minimal increase in wastewater flow to the EWWTP. The project would also be required to pay development

impact fees to fund improvements to wastewater and sewer facilities (City of Vacaville 2020). Therefore, impacts would be **less than significant.**

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

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

As discussed in the environmental setting above, the Hay Road Landfill has a permitted daily capacity of 2,400 tons, a total capacity of 37 million cubic yards and remaining capacity of approximately 30.4 million cubic yards.

Assembly Bill (AB) 939 requires the City to develop and implement a solid waste management program. PRC Section 41780(a)(2) also requires cities and counties to divert 50% of the solid waste produced within their respective jurisdictions through source reduction, recycling, and/or composting activities. Since 2007, Senate Bill 1016 has required cities to report to the California Integrated Waste Management Board (now known as CalRecycle) the amount of solid waste disposed in the landfill per person per day. According to CalRecycle's jurisdiction/disposal rate detail for Vacaville for the 2018 reporting year (CalRecycle 2018), Vacaville's residential disposal target was 6.5 pounds per person per day (ppd), and the employee disposal target was 24.6 ppd. The City has consistently met both of these goals from 2007 through 2018. In 2018, the resident disposal rate was 5.3 ppd while the employee disposal rate was 14.7 ppd. The proposed project would comply with federal, State and local solid waste statutes regarding reducing the amount of solid waste disposed of at a landfill. The project would not contain features that would generate waste flows at rates that would exceed typical disposal rates for the City; therefore, the project would have a **less-than-significant impact** on the demand for solid waste collection and disposal in the City.

Mitigation Measures

None required.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Environmental Setting

Highly flammable vegetation and warm, dry summers create the potential for wildland fires in the City. There are 2,635-acres of land within the City classified by Cal Fire as High Fire Hazard Severity Zones and 5,717 acres classified as Moderate Fire Hazard Severity Zones (City of Vacaville 2013). The closest Very High Fire Severity Zone is in a State Responsibility Area (SRA) approximately 5.4 miles west of the project site, along the western County boundary (CAL FIRE 2007). The City adopted Chapter 14.20.290 (Development Standards for New Construction Adjacent to Open Space Lands Where Wildlife is a Threat), to reduce risks from wildland fires for new development adjacent to permanent open space or other lands where no development is anticipated in the near future (City of Vacaville 2015a).

The City has adopted the Association of Bay Area Governments (ABAG's) regional hazard mitigation plan, *Taming Natural Disasters: Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area*, as the local hazard mitigation plan for natural disasters and emergency response (City of Vacaville 2015a).

Listed below are relevant policies from the City of Vacaville General Plan adopted on August 11, 2015:

- **Policy SAF-P5.2:** Require that all development in areas of potential wildland fire hazards, including agricultural areas east of Leisure Town Road, include the following:
  - Fire breaks adjoining open space areas;
  - Adequate emergency access to adjoining open spaces;
  - Clearance around structures;
  - Fire-resistant ground cover;
  - Fire-resistant roofing materials; and
  - Adequate emergency water flow.
- **Policy SAF-P5.6:** Require all development applications to be reviewed and approved by the Fire Department prior to project approval.
- **Policy SAF-P7.3:** Maintain an adequate level of disaster response preparedness through careful review of proposed developments and through staff training in and exercise of the local hazard mitigation plan.
- **Policy SAF-P7.4:** Require that emergency access routes be kept free of traffic impediments.

- **Policy PUB-P1.1:** Prohibit any development that will not, even with identified mitigation measures, maintain standards for fire, rescue, and emergency medical service. All service standards shall be met prior to project occupancy. Allow exceptions to these services standards only when there are overriding findings of special circumstances or economic or social benefits.
- **Policy PUB-P1.4:** Identify and mitigate fire hazards during the project review and approval process.

Discussion

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

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

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

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

As discussed in the environmental setting above, the project site is not located in a Very High Fire Hazard Severity Zone. The closest Very High Fire Severity Zone is in an SRA approximately 5.4 miles west of the project site (CAL FIRE 2007). General Plan Policy SAF-5.2 requires all development in areas with a potential wildland fire risk to include firebreaks adjoining open areas, provide adequate access to open space, ensure clearance around structures, fire-resistant ground cover and roofing materials are included, and adequate emergency water flow is available. Furthermore, the proposed project would be reviewed by the City's Fire Department and City staff to ensure fire and emergency response standards are maintained. The project site is located in an area where fuels required for wildland fires are limited and on flat land that would not exacerbate wildfire risks or expose people or structures to significant risks such as downslope or downstream flooding or landslides.

Section 14.20.290 of the City's Land Use Development Code provides development standards for new construction adjacent to open space where there is a threat of wildfire such as use of fire buffer zones, fire access roads, use of a fire protection greenbelt, drainage ditches, rear/side yard setbacks, non-combustible fencing, and sprinkler systems (City of Vacaville 2005). Lands surrounding the project site contain commercial uses. However, there are several undeveloped parcels located to the north, east, and south of the project site. The majority of this land is irrigated, does not contain fuel sources, and would not pose a wildfire threat. Although the proposed project would involve extension of utility lines, including power lines, this would not exacerbate fire risk as the project site is located in an area that is already served by existing utilities.

As discussed in the environmental setting above, the City's emergency response plan is the ABAG's Taming Natural Disasters report. The City's General Plan includes several policies specific to new development within the City that requires projects to incorporate emergency access routes and to not interfere with emergency operations. In accordance with General Plan Policy SAF-P7.3, proposed developments must be reviewed by the City to ensure compliance with the local hazard mitigation plan. Any development in the City that does not maintain standards for fire, rescue, and emergency medical service is prohibited, per General Plan Policy PUB-P1.1. The project would comply with General Plan policies related to reducing interference with adopted emergency response plans. Therefore, impacts would be **less than significant.**

Mitigation Measures

None required.

3.21 Mandatory Findings of Significance

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

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

To ensure that the proposed project does not 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, or reduce the number or restrict the range of a rare or endangered plant or animal, Mitigation Measures BIO-1 through BIO-4 are required to ensure project construction or operation would not degrade the environment or adversely impact protected species as well as their habitat.

To ensure that cultural and paleontological resources impacts are less than significant, Mitigation Measures CUL-1, CUL-2 and TCR-1 and TCR-2 are required to ensure the proper protocol is followed in the event any cultural or paleontological resources are unearthed during construction. Thus, there would be a **less-than-significant impact with mitigation**.

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)?

The analysis provided throughout this IS/MND demonstrates that the project's contribution to any existing cumulative impacts would be reduced to less-than-significant levels through mitigation and any contribution to an existing cumulative impact would be very small and would not be considered cumulatively considerable. Therefore, the project's cumulative impact would be **less than significant**.

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

As required by Mitigation Measure HAZ-1, the applicant would be required to obtain a decision by ALUC that finds the project to be consistent with the airport land use plan. This would ensure that no incompatible uses would be built and that no human beings would be harmed from potential aircraft hazards. With implementation of Mitigation Measure HAZ-1, impacts would be less than significant., and impacts would be **less than significant**.

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4.2 List of Preparers

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Adam Giacinto, Cultural Resources

Appendix A

Air Quality Model Outputs

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/25/2020 11:59 AM

I

Aviator & Monte Vista Warehouse Project

Yolo/Solano AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	41.00	1000sqft	0.00	41,000.00	0
General Light Industry	468.23	1000sqft	17.06	468,232.00	0
Parking Lot	510.00	Space	13.31	580,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	6.8	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Aviator & Monte Vista Warehouse Project. YSAQMD. CO2 adjusted based on PG&E Corporate and Sustainability Report.

Land Use - Project includes two buildings totaling 509,232 sf (468,232 sf of warehouse and 41,000 sf of office) and 510 parking spaces (398 auto parking and 112 trailer parking) on 30.37 acres.

Construction Phase - Construction assumed to begin Aug 2020 and would be completed by March 2021.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Assumed default equipment.

Off-road Equipment - Updated based on information from applicant.

Trips and VMT - Updated trips information per applicant.

On-road Fugitive Dust - Assumed 100% of roadway paved.

Grading - 30,000 cy of export.

Architectural Coating - Project would utlize no-VOC paint.

Vehicle Trips - Updated trip generation rates per Traffic Impact Analysis Memorandum (Omni Means 2018).

Road Dust - Assumed 100% roadways within project vicinity are paved.

Woodstoves - Fireplaces assumed to be gas fueled rather than wood fueled. Default quantities also assumed.

Area Coating - Application of no-VOC paint.

Construction Off-road Equipment Mitigation - Assumed compilance with basic fugitive dust reduction measures.

Energy Mitigation - Project would comply with 2019 Title 24 standards - nonres 30% less energy than 2016 standards.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Waste Mitigation - 75% reduction in the volume of waste was assumed in accordance with AB 341 (not mitigation).

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	5.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	5.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	5
tblAreaCoating	Area_EF_Nonresidential_Interior	150	5
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	45.00	10.00
tblConstructionPhase	NumDays	500.00	163.00
tblConstructionPhase	NumDays	35.00	11.00
tblConstructionPhase	NumDays	35.00	6.00
tblGrading	AcresOfGrading	45.00	22.00
tblGrading	MaterialExported	0.00	30,000.00
tblLandUse	LandUseSquareFeet	468,230.00	468,232.00
tblLandUse	LandUseSquareFeet	204,000.00	580,000.00

tblLandUse	LotAcreage	0.94	0.00
tblLandUse	LotAcreage	10.75	17.06
tblLandUse	LotAcreage	4.59	13.31
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Architectural Coating
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00

tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	94	100
tblSolidWaste	SolidWasteGenerationRate	580.61	631.45
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	179.00	116.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	453.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	4.00
tblTripsAndVMT	WorkerTripNumber	91.00	4.00
tblVehicleTrips	ST_TR	1.32	0.33
tblVehicleTrips	ST_TR	2.46	2.43
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.05	1.04
tblVehicleTrips	WD_TR	6.97	1.74
tblVehicleTrips	WD_TR	11.03	10.89
tblWater	IndoorWaterUseRate	108,278,187.50	117,759,437.50

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2467	3.0950	1.4861	6.3600e-003	0.0730	0.0886	0.1616	0.0178	0.0817	0.0995	0.0000	575.3124	575.3124	0.1282	0.0000	578.5175
2021	0.4017	1.6477	0.9196	3.9800e-003	0.0336	0.0486	0.0822	9.6300e-003	0.0448	0.0544	0.0000	358.4190	358.4190	0.0820	0.0000	360.4689
Maximum	**0.4017**	**3.0950**	**1.4861**	**6.3600e-003**	**0.0730**	**0.0886**	**0.1616**	**0.0178**	**0.0817**	**0.0995**	**0.0000**	**575.3124**	**575.3124**	**0.1282**	**0.0000**	**578.5175**

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					
2020	0.2467	3.0950	1.4861	6.3600e-003	0.0625	0.0886	0.1511	0.0165	0.0817	0.0982	0.0000	575.3120	575.3120	0.1282	0.0000	578.5171
2021	0.4017	1.6477	0.9196	3.9800e-003	0.0336	0.0486	0.0822	9.6300e-003	0.0448	0.0544	0.0000	358.4187	358.4187	0.0820	0.0000	360.4686
Maximum	**0.4017**	**3.0950**	**1.4861**	**6.3600e-003**	**0.0625**	**0.0886**	**0.1511**	**0.0165**	**0.0817**	**0.0982**	**0.0000**	**575.3120**	**575.3120**	**0.1282**	**0.0000**	**578.5171**

	ROG	**NOx**	**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**	**9.82**	**0.00**	**4.29**	**4.77**	**0.00**	**0.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0511	9.0000e-005	9.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0194
Energy	0.0702	0.6384	0.5363	3.8300e-003		0.0485	0.0485		0.0485	0.0485	0.0000	1,152.3398	1,152.3398	0.0765	0.0258	1,161.9429
Mobile	0.3502	2.6382	4.1745	0.0186	1.3672	0.0155	1.3827	0.3680	0.0146	0.3826	0.0000	1,713.1583	1,713.1583	0.0763	0.0000	1,715.0657
Waste						0.0000	0.0000		0.0000	0.0000	135.9187	0.0000	135.9187	8.0326	0.0000	336.7328
Water						0.0000	0.0000		0.0000	0.0000	39.6715	65.9407	105.6122	4.0838	0.0981	236.9383
Total	**2.4715**	**3.2767**	**4.7201**	**0.0224**	**1.3672**	**0.0641**	**1.4312**	**0.3680**	**0.0632**	**0.4312**	**175.5902**	**2,931.4570**	**3,107.0472**	**12.2691**	**0.1239**	**3,450.6991**

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	2.0511	9.0000e-005	9.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0194
Energy	0.0542	0.4928	0.4140	2.9600e-003		0.0375	0.0375		0.0375	0.0375	0.0000	966.9268	966.9268	0.0697	0.0221	975.2656
Mobile	0.3502	2.6382	4.1745	0.0186	1.3672	0.0155	1.3827	0.3680	0.0146	0.3826	0.0000	1,713.1583	1,713.1583	0.0763	0.0000	1,715.0657
Waste						0.0000	0.0000		0.0000	0.0000	33.9797	0.0000	33.9797	2.0081	0.0000	84.1832
Water						0.0000	0.0000		0.0000	0.0000	31.7372	52.7526	84.4897	3.2670	0.0785	189.5506
Total	**2.4555**	**3.1312**	**4.5978**	**0.0215**	**1.3672**	**0.0530**	**1.4202**	**0.3680**	**0.0521**	**0.4201**	**65.7169**	**2,732.8558**	**2,798.5727**	**5.4212**	**0.1006**	**2,964.0845**

	ROG	NOx	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	**0.65**	**4.44**	**2.59**	**3.89**	**0.00**	**17.26**	**0.77**	**0.00**	**17.51**	**2.56**	**62.57**	**6.77**	**9.93**	**55.81**	**18.80**	**14.10**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	8/1/2020	8/15/2020	5	10	
2	Building Construction	Building Construction	8/15/2020	3/31/2021	5	163	
3	Trenching	Trenching	9/1/2020	9/15/2020	5	11	
4	Paving	Paving	2/1/2021	2/15/2021	5	11	
5	Architectural Coating	Architectural Coating	3/1/2021	3/8/2021	5	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22

Acres of Paving: 13.31

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 763,848; Non-Residential Outdoor: 254,616; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	2	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Off-Highway Trucks	5	8.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Paving	Graders	1	8.00	187	0.41
Paving	Off-Highway Trucks	2	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Architectural Coating	Aerial Lifts	4	8.00	63	0.31

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
Grading	4	8.00	2.00	3,750.00	15.00	9.00	2.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	6.00	116.00	0.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	4.00	2.00	4.00	15.00	9.00	2.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	6.00	40.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	4.00	0.00	0.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2020

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					0.0190	0.0000	0.0190	2.3700e-003	0.0000	2.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8500e-003	0.0843	0.0409	1.0000e-004		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003	0.0000	8.5592	8.5592	2.7700e-003	0.0000	8.6284
Total	**6.8500e-003**	**0.0843**	**0.0409**	**1.0000e-004**	**0.0190**	**3.3500e-003**	**0.0224**	**2.3700e-003**	**3.0900e-003**	**5.4600e-003**	**0.0000**	**8.5592**	**8.5592**	**2.7700e-003**	**0.0000**	**8.6284**

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	5.3600e-003	0.2283	0.0294	3.8000e-004	3.2200e-003	3.3000e-004	3.5400e-003	8.9000e-004	3.1000e-004	1.2000e-003	0.0000	36.2408	36.2408	5.4000e-003	0.0000	36.3757
Vendor	4.0000e-005	1.2700e-003	2.5000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3222	0.3222	2.0000e-005	0.0000	0.3226
Worker	1.9000e-004	1.3000e-004	1.3400e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3984	0.3984	1.0000e-005	0.0000	0.3986
Total	**5.5900e-003**	**0.2297**	**0.0309**	**3.8000e-004**	**3.7400e-003**	**3.4000e-004**	**4.0700e-003**	**1.0300e-003**	**3.2000e-004**	**1.3500e-003**	**0.0000**	**36.9614**	**36.9614**	**5.4300e-003**	**0.0000**	**37.0970**

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					8.5600e-003	0.0000	8.5600e-003	1.0700e-003	0.0000	1.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8500e-003	0.0843	0.0409	1.0000e-004		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003	0.0000	8.5592	8.5592	2.7700e-003	0.0000	8.6284
Total	**6.8500e-003**	**0.0843**	**0.0409**	**1.0000e-004**	**8.5600e-003**	**3.3500e-003**	**0.0119**	**1.0700e-003**	**3.0900e-003**	**4.1600e-003**	**0.0000**	**8.5592**	**8.5592**	**2.7700e-003**	**0.0000**	**8.6284**

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	5.3600e-003	0.2283	0.0294	3.8000e-004	3.2200e-003	3.3000e-004	3.5400e-003	8.9000e-004	3.1000e-004	1.2000e-003	0.0000	36.2408	36.2408	5.4000e-003	0.0000	36.3757
Vendor	4.0000e-005	1.2700e-003	2.5000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3222	0.3222	2.0000e-005	0.0000	0.3226
Worker	1.9000e-004	1.3000e-004	1.3400e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3984	0.3984	1.0000e-005	0.0000	0.3986
Total	**5.5900e-003**	**0.2297**	**0.0309**	**3.8000e-004**	**3.7400e-003**	**3.4000e-004**	**4.0700e-003**	**1.0300e-003**	**3.2000e-004**	**1.3500e-003**	**0.0000**	**36.9614**	**36.9614**	**5.4300e-003**	**0.0000**	**37.0970**

3.3 Building Construction - 2020

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	0.2041	2.0002	1.2190	3.7800e-003		0.0794	0.0794		0.0730	0.0730	0.0000	332.3332	332.3332	0.1075	0.0000	335.0202
Total	**0.2041**	**2.0002**	**1.2190**	**3.7800e-003**		**0.0794**	**0.0794**		**0.0730**	**0.0730**	**0.0000**	**332.3332**	**332.3332**	**0.1075**	**0.0000**	**335.0202**

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	0.0236	0.7300	0.1453	1.9500e-003	0.0466	3.6000e-003	0.0502	0.0135	3.4400e-003	0.0169	0.0000	185.0133	185.0133	9.5600e-003	0.0000	185.2523
Worker	1.4000e-003	1.0000e-003	9.9600e-003	3.0000e-005	3.2800e-003	2.0000e-005	3.3000e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.9581	2.9581	7.0000e-005	0.0000	2.9599
Total	**0.0250**	**0.7310**	**0.1553**	**1.9800e-003**	**0.0499**	**3.6200e-003**	**0.0535**	**0.0143**	**3.4600e-003**	**0.0178**	**0.0000**	**187.9714**	**187.9714**	**9.6300e-003**	**0.0000**	**188.2122**

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	0.2041	2.0002	1.2190	3.7800e-003		0.0794	0.0794		0.0730	0.0730	0.0000	332.3328	332.3328	0.1075	0.0000	335.0198
Total	**0.2041**	**2.0002**	**1.2190**	**3.7800e-003**		**0.0794**	**0.0794**		**0.0730**	**0.0730**	**0.0000**	**332.3328**	**332.3328**	**0.1075**	**0.0000**	**335.0198**

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	0.0236	0.7300	0.1453	1.9500e-003	0.0466	3.6000e-003	0.0502	0.0135	3.4400e-003	0.0169	0.0000	185.0133	185.0133	9.5600e-003	0.0000	185.2523
Worker	1.4000e-003	1.0000e-003	9.9600e-003	3.0000e-005	3.2800e-003	2.0000e-005	3.3000e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.9581	2.9581	7.0000e-005	0.0000	2.9599
Total	**0.0250**	**0.7310**	**0.1553**	**1.9800e-003**	**0.0499**	**3.6200e-003**	**0.0535**	**0.0143**	**3.4600e-003**	**0.0178**	**0.0000**	**187.9714**	**187.9714**	**9.6300e-003**	**0.0000**	**188.2122**

3.3 Building Construction - 2021

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	0.1203	1.0957	0.7499	2.4500e-003		0.0434	0.0434		0.0400	0.0400	0.0000	214.8296	214.8296	0.0695	0.0000	216.5666
Total	**0.1203**	**1.0957**	**0.7499**	**2.4500e-003**		**0.0434**	**0.0434**		**0.0400**	**0.0400**	**0.0000**	**214.8296**	**214.8296**	**0.0695**	**0.0000**	**216.5666**

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	0.0126	0.4304	0.0818	1.2500e-003	0.0301	1.1300e-003	0.0313	8.7000e-003	1.0800e-003	9.7900e-003	0.0000	118.5082	118.5082	5.8800e-003	0.0000	118.6552
Worker	8.4000e-004	5.8000e-004	5.8800e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.8455	1.8455	4.0000e-005	0.0000	1.8465
Total	**0.0135**	**0.4310**	**0.0877**	**1.2700e-003**	**0.0322**	**1.1400e-003**	**0.0334**	**9.2600e-003**	**1.0900e-003**	**0.0104**	**0.0000**	**120.3537**	**120.3537**	**5.9200e-003**	**0.0000**	**120.5017**

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	0.1203	1.0957	0.7499	2.4500e-003		0.0434	0.0434		0.0400	0.0400	0.0000	214.8294	214.8294	0.0695	0.0000	216.5664
Total	**0.1203**	**1.0957**	**0.7499**	**2.4500e-003**		**0.0434**	**0.0434**		**0.0400**	**0.0400**	**0.0000**	**214.8294**	**214.8294**	**0.0695**	**0.0000**	**216.5664**

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	0.0126	0.4304	0.0818	1.2500e-003	0.0301	1.1300e-003	0.0313	8.7000e-003	1.0800e-003	9.7900e-003	0.0000	118.5082	118.5082	5.8800e-003	0.0000	118.6552
Worker	8.4000e-004	5.8000e-004	5.8800e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.8455	1.8455	4.0000e-005	0.0000	1.8465
Total	**0.0135**	**0.4310**	**0.0877**	**1.2700e-003**	**0.0322**	**1.1400e-003**	**0.0334**	**9.2600e-003**	**1.0900e-003**	**0.0104**	**0.0000**	**120.3537**	**120.3537**	**5.9200e-003**	**0.0000**	**120.5017**

3.4 Trenching - 2020

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	4.9900e-003	0.0480	0.0389	1.0000e-004		1.9100e-003	1.9100e-003		1.7600e-003	1.7600e-003	0.0000	8.8751	8.8751	2.8700e-003	0.0000	8.9468
Total	**4.9900e-003**	**0.0480**	**0.0389**	**1.0000e-004**		**1.9100e-003**	**1.9100e-003**		**1.7600e-003**	**1.7600e-003**	**0.0000**	**8.8751**	**8.8751**	**2.8700e-003**	**0.0000**	**8.9468**

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	1.0000e-005	2.4000e-004	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0387	0.0387	1.0000e-005	0.0000	0.0388
Vendor	5.0000e-005	1.4000e-003	2.8000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3544	0.3544	2.0000e-005	0.0000	0.3549
Worker	1.0000e-004	7.0000e-005	7.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2191	0.2191	1.0000e-005	0.0000	0.2193
Total	**1.6000e-004**	**1.7100e-003**	**1.0500e-003**	**0.0000**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**9.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**0.6122**	**0.6122**	**4.0000e-005**	**0.0000**	**0.6129**

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	4.9900e-003	0.0480	0.0389	1.0000e-004		1.9100e-003	1.9100e-003		1.7600e-003	1.7600e-003	0.0000	8.8750	8.8750	2.8700e-003	0.0000	8.9468
Total	**4.9900e-003**	**0.0480**	**0.0389**	**1.0000e-004**		**1.9100e-003**	**1.9100e-003**		**1.7600e-003**	**1.7600e-003**	**0.0000**	**8.8750**	**8.8750**	**2.8700e-003**	**0.0000**	**8.9468**

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	1.0000e-005	2.4000e-004	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0387	0.0387	1.0000e-005	0.0000	0.0388
Vendor	5.0000e-005	1.4000e-003	2.8000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3544	0.3544	2.0000e-005	0.0000	0.3549
Worker	1.0000e-004	7.0000e-005	7.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2191	0.2191	1.0000e-005	0.0000	0.2193
Total	**1.6000e-004**	**1.7100e-003**	**1.0500e-003**	**0.0000**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**9.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**0.6122**	**0.6122**	**4.0000e-005**	**0.0000**	**0.6129**

3.5 Paving - 2021

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	0.0105	0.1048	0.0653	2.1000e-004		3.8500e-003	3.8500e-003		3.5400e-003	3.5400e-003	0.0000	18.2307	18.2307	5.9000e-003	0.0000	18.3781
Paving	0.0174					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0280**	**0.1048**	**0.0653**	**2.1000e-004**		**3.8500e-003**	**3.8500e-003**		**3.5400e-003**	**3.5400e-003**	**0.0000**	**18.2307**	**18.2307**	**5.9000e-003**	**0.0000**	**18.3781**

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	1.5000e-004	4.9700e-003	8.3000e-004	2.0000e-005	3.4000e-004	2.0000e-005	3.6000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.5372	1.5372	6.0000e-005	0.0000	1.5388
Vendor	1.1000e-004	3.8300e-003	7.3000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.0536	1.0536	5.0000e-005	0.0000	1.0549
Worker	2.4000e-004	1.7000e-004	1.6900e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5287	0.5287	1.0000e-005	0.0000	0.5290
Total	**5.0000e-004**	**8.9700e-003**	**3.2500e-003**	**4.0000e-005**	**1.2200e-003**	**3.0000e-005**	**1.2500e-003**	**3.3000e-004**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**3.1194**	**3.1194**	**1.2000e-004**	**0.0000**	**3.1226**

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	0.0105	0.1048	0.0653	2.1000e-004		3.8500e-003	3.8500e-003		3.5400e-003	3.5400e-003	0.0000	18.2306	18.2306	5.9000e-003	0.0000	18.3780
Paving	0.0174					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0280**	**0.1048**	**0.0653**	**2.1000e-004**		**3.8500e-003**	**3.8500e-003**		**3.5400e-003**	**3.5400e-003**	**0.0000**	**18.2306**	**18.2306**	**5.9000e-003**	**0.0000**	**18.3780**

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	1.5000e-004	4.9700e-003	8.3000e-004	2.0000e-005	3.4000e-004	2.0000e-005	3.6000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.5372	1.5372	6.0000e-005	0.0000	1.5388
Vendor	1.1000e-004	3.8300e-003	7.3000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.0536	1.0536	5.0000e-005	0.0000	1.0549
Worker	2.4000e-004	1.7000e-004	1.6900e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5287	0.5287	1.0000e-005	0.0000	0.5290
Total	**5.0000e-004**	**8.9700e-003**	**3.2500e-003**	**4.0000e-005**	**1.2200e-003**	**3.0000e-005**	**1.2500e-003**	**3.3000e-004**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**3.1194**	**3.1194**	**1.2000e-004**	**0.0000**	**3.1226**

3.6 Architectural Coating - 2021

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	0.2390					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	7.2100e-003	0.0131	2.0000e-005		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	1.7703	1.7703	5.7000e-004	0.0000	1.7846
Total	**0.2394**	**7.2100e-003**	**0.0131**	**2.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.7703**	**1.7703**	**5.7000e-004**	**0.0000**	**1.7846**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1153	0.1153	0.0000	0.0000	0.1154
Total	**5.0000e-005**	**4.0000e-005**	**3.7000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1153**	**0.1153**	**0.0000**	**0.0000**	**0.1154**

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	0.2390					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	7.2100e-003	0.0131	2.0000e-005		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	1.7703	1.7703	5.7000e-004	0.0000	1.7846
Total	**0.2394**	**7.2100e-003**	**0.0131**	**2.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.7703**	**1.7703**	**5.7000e-004**	**0.0000**	**1.7846**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1153	0.1153	0.0000	0.0000	0.1154
Total	**5.0000e-005**	**4.0000e-005**	**3.7000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1153**	**0.1153**	**0.0000**	**0.0000**	**0.1154**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3502	2.6382	4.1745	0.0186	1.3672	0.0155	1.3827	0.3680	0.0146	0.3826	0.0000	1,713.1583	1,713.1583	0.0763	0.0000	1,715.0657
Unmitigated	0.3502	2.6382	4.1745	0.0186	1.3672	0.0155	1.3827	0.3680	0.0146	0.3826	0.0000	1,713.1583	1,713.1583	0.0763	0.0000	1,715.0657

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	814.72	154.52	79.60	2,561,555	2,561,555
Parking Lot	0.00	0.00	0.00		
General Office Building	446.49	99.63	42.64	1,060,462	1,060,462
Total	1,261.21	254.15	122.24	3,622,017	3,622,017

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	15.00	8.00	9.00	59.00	28.00	13.00	92	5	3
Parking Lot	15.00	8.00	9.00	0.00	0.00	0.00	0	0	0
General Office Building	15.00	8.00	9.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929
Parking Lot	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929
General Office Building	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	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	430.4145	430.4145	0.0594	0.0123	435.5651
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	457.3760	457.3760	0.0632	0.0131	462.8493
NaturalGas Mitigated	0.0542	0.4928	0.4140	2.9600e-003		0.0375	0.0375		0.0375	0.0375	0.0000	536.5123	536.5123	0.0103	9.8400e-003	539.7006
NaturalGas Unmitigated	0.0702	0.6384	0.5363	3.8300e-003		0.0485	0.0485		0.0485	0.0485	0.0000	694.9638	694.9638	0.0133	0.0127	699.0936

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.2352e+007	0.0666	0.6055	0.5086	3.6300e-003		0.0460	0.0460		0.0460	0.0460	0.0000	659.1476	659.1476	0.0126	0.0121	663.0646
General Office Building	671170	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.8162	35.8162	6.9000e-004	6.6000e-004	36.0290
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		**0.0702**	**0.6384**	**0.5363**	**3.8300e-003**		**0.0485**	**0.0485**		**0.0485**	**0.0485**	**0.0000**	**694.9638**	**694.9638**	**0.0133**	**0.0127**	**699.0936**

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					
General Light Industry	9.5833e+006	0.0517	0.4698	0.3946	2.8200e-003		0.0357	0.0357		0.0357	0.0357	0.0000	511.4016	511.4016	9.8000e-003	9.3800e-003	514.4406
General Office Building	470557	2.5400e-003	0.0231	0.0194	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.1107	25.1107	4.8000e-004	4.6000e-004	25.2599
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		**0.0542**	**0.4928**	**0.4140**	**2.9600e-003**		**0.0375**	**0.0375**		**0.0375**	**0.0375**	**0.0000**	**536.5123**	**536.5123**	**0.0103**	**9.8400e-003**	**539.7006**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	3.8676e+006	368.4056	0.0509	0.0105	372.8141
General Office Building	731030	69.6338	9.6200e-003	1.9900e-003	70.4671
Parking Lot	203000	19.3366	2.6700e-003	5.5000e-004	19.5680
Total		**457.3760**	**0.0632**	**0.0131**	**462.8493**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	3.6597e+006	348.6026	0.0481	9.9600e-003	352.7743
General Office Building	655877	62.4752	8.6300e-003	1.7900e-003	63.2228
Parking Lot	203000	19.3366	2.6700e-003	5.5000e-004	19.5680
Total		**430.4145**	**0.0594**	**0.0123**	**435.5651**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0511	9.0000e-005	9.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0194
Unmitigated	2.0511	9.0000e-005	9.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0194

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	0.0239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0263					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.7000e-004	9.0000e-005	9.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0194
Total	**2.0511**	**9.0000e-005**	**9.3800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0182**	**0.0182**	**5.0000e-005**	**0.0000**	**0.0194**

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	0.0239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0263					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.7000e-004	9.0000e-005	9.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0194
Total	**2.0511**	**9.0000e-005**	**9.3800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0182**	**0.0182**	**5.0000e-005**	**0.0000**	**0.0194**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	84.4897	3.2670	0.0785	189.5506
Unmitigated	105.6122	4.0838	0.0981	236.9383

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	117.759 / 0	98.0554	3.8456	0.0923	221.7117
General Office Building	7.28708 / 4.46628	7.5568	0.2382	5.7600e-003	15.2266
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**105.6122**	**4.0837**	**0.0981**	**236.9383**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	94.2075 / 0	78.4443	3.0765	0.0739	177.3693
General Office Building	5.82967 / 3.57302	6.0454	0.1905	4.6100e-003	12.1813
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**84.4897**	**3.2670**	**0.0785**	**189.5506**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.9797	2.0081	0.0000	84.1832
Unmitigated	135.9187	8.0326	0.0000	336.7328

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	631.45	128.1786	7.5751	0.0000	317.5572
General Office Building	38.13	7.7401	0.4574	0.0000	19.1756
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**135.9187**	**8.0326**	**0.0000**	**336.7328**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	157.863	32.0447	1.8938	0.0000	79.3893
General Office Building	9.5325	1.9350	0.1144	0.0000	4.7939
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**33.9797**	**2.0082**	**0.0000**	**84.1832**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/25/2020 12:01 PM

Aviator & Monte Vista Warehouse Project

Yolo/Solano AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	41.00	1000sqft	0.00	41,000.00	0
General Light Industry	468.23	1000sqft	17.06	468,232.00	0
Parking Lot	510.00	Space	13.31	580,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	6.8	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Aviator & Monte Vista Warehouse Project. YSAQMD. CO2 adjusted based on PG&E Corporate and Sustainability Report.

Land Use - Project includes two buildings totaling 509,232 sf (468,232 sf of warehouse and 41,000 sf of office) and 510 parking spaces (398 auto parking and 112 trailer parking) on 30.37 acres.

Construction Phase - Construction assumed to begin Aug 2020 and would be completed by March 2021.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Assumed default equipment.

Off-road Equipment - Updated based on information from applicant.

Trips and VMT - Updated trips information per applicant.

On-road Fugitive Dust - Assumed 100% of roadway paved.

Grading - 30,000 cy of export.

Architectural Coating - Project would utlize no-VOC paint.

Vehicle Trips - Updated trip generation rates per Traffic Impact Analysis Memorandum (Omni Means 2018).

Road Dust - Assumed 100% roadways within project vicinity are paved.

Woodstoves - Fireplaces assumed to be gas fueled rather than wood fueled. Default quantities also assumed.

Area Coating - Application of no-VOC paint.

Construction Off-road Equipment Mitigation - Assumed compilance with basic fugitive dust reduction measures.

Energy Mitigation - Project would comply with 2019 Title 24 standards - nonres 30% less energy than 2016 standards.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Waste Mitigation - 75% reduction in the volume of waste was assumed in accordance with AB 341 (not mitigation).

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	5.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	5.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	5
tblAreaCoating	Area_EF_Nonresidential_Interior	150	5
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	45.00	10.00
tblConstructionPhase	NumDays	500.00	163.00
tblConstructionPhase	NumDays	35.00	11.00
tblConstructionPhase	NumDays	35.00	6.00
tblGrading	AcresOfGrading	45.00	22.00
tblGrading	MaterialExported	0.00	30,000.00
tblLandUse	LandUseSquareFeet	468,230.00	468,232.00
tblLandUse	LandUseSquareFeet	204,000.00	580,000.00

tblLandUse	LotAcreage	0.94	0.00
tblLandUse	LotAcreage	10.75	17.06
tblLandUse	LotAcreage	4.59	13.31
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Architectural Coating
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00

tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	94	100
tblSolidWaste	SolidWasteGenerationRate	580.61	631.45
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	179.00	116.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	453.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	4.00
tblTripsAndVMT	WorkerTripNumber	91.00	4.00
tblVehicleTrips	ST_TR	1.32	0.33
tblVehicleTrips	ST_TR	2.46	2.43
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.05	1.04
tblVehicleTrips	WD_TR	6.97	1.74
tblVehicleTrips	WD_TR	11.03	10.89
tblWater	IndoorWaterUseRate	108,278,187.50	117,759,437.50

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.0688	117.9899	41.1197	0.2173	5.6103	2.4100	8.0203	0.9824	2.2221	3.2045	0.0000	21,989.6207	21,989.6207	4.3369	0.0000	22,098.0432
2021	84.0068	68.1084	38.5266	0.1605	1.2634	2.0976	3.3609	0.3586	1.9312	2.2898	0.0000	15,895.2646	15,895.2646	3.7930	0.0000	15,990.0892
Maximum	**84.0068**	**117.9899**	**41.1197**	**0.2173**	**5.6103**	**2.4100**	**8.0203**	**0.9824**	**2.2221**	**3.2045**	**0.0000**	**21,989.6207**	**21,989.6207**	**4.3369**	**0.0000**	**22,098.0432**

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					
2020	7.0688	117.9899	41.1197	0.2173	3.5180	2.4100	5.9280	0.7213	2.2221	2.9434	0.0000	21,989.6207	21,989.6207	4.3369	0.0000	22,098.0432
2021	84.0068	68.1084	38.5266	0.1605	1.2634	2.0976	3.3609	0.3586	1.9312	2.2898	0.0000	15,895.2646	15,895.2646	3.7930	0.0000	15,990.0892
Maximum	**84.0068**	**117.9899**	**41.1197**	**0.2173**	**3.5180**	**2.4100**	**5.9280**	**0.7213**	**2.2221**	**2.9434**	**0.0000**	**21,989.6207**	**21,989.6207**	**4.3369**	**0.0000**	**22,098.0432**

	ROG	**NOx**	**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**	**30.44**	**0.00**	**18.38**	**19.47**	**0.00**	**4.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.2437	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Energy	0.3848	3.4980	2.9383	0.0210		0.2659	0.2659		0.2659	0.2659		4,197.6246	4,197.6246	0.0805	0.0770	4,222.5689
Mobile	2.9805	18.5332	33.5368	0.1434	10.2554	0.1122	10.3676	2.7530	0.1055	2.8585		14,587.4638	14,587.4638	0.6148		14,602.8348
Total	**14.6090**	**22.0321**	**36.5794**	**0.1644**	**10.2554**	**0.3784**	**10.6338**	**2.7530**	**0.3717**	**3.1247**		**18,785.3114**	**18,785.3114**	**0.6959**	**0.0770**	**18,825.6415**

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	11.2437	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Energy	0.2971	2.7005	2.2684	0.0162		0.2052	0.2052		0.2052	0.2052		3,240.5677	3,240.5677	0.0621	0.0594	3,259.8248
Mobile	2.9805	18.5332	33.5368	0.1434	10.2554	0.1122	10.3676	2.7530	0.1055	2.8585		14,587.4638	14,587.4638	0.6148		14,602.8348
Total	**14.5212**	**21.2346**	**35.9094**	**0.1597**	**10.2554**	**0.3178**	**10.5732**	**2.7530**	**0.3111**	**3.0641**		**17,828.2546**	**17,828.2546**	**0.6775**	**0.0594**	**17,862.8974**

	ROG	NOx	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	**0.60**	**3.62**	**1.83**	**2.91**	**0.00**	**16.02**	**0.57**	**0.00**	**16.31**	**1.94**	**0.00**	**5.09**	**5.09**	**2.64**	**22.80**	**5.11**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	8/1/2020	8/15/2020	5	10	
2	Building Construction	Building Construction	8/15/2020	3/31/2021	5	163	
3	Trenching	Trenching	9/1/2020	9/15/2020	5	11	
4	Paving	Paving	2/1/2021	2/15/2021	5	11	
5	Architectural Coating	Architectural Coating	3/1/2021	3/8/2021	5	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22

Acres of Paving: 13.31

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 763,848; Non-Residential Outdoor: 254,616; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	2	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Off-Highway Trucks	5	8.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Paving	Graders	1	8.00	187	0.41
Paving	Off-Highway Trucks	2	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Architectural Coating	Aerial Lifts	4	8.00	63	0.31

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
Grading	4	8.00	2.00	3,750.00	15.00	9.00	2.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	6.00	116.00	0.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	4.00	2.00	4.00	15.00	9.00	2.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	6.00	40.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	4.00	0.00	0.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2020

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					3.8043	0.0000	3.8043	0.4747	0.0000	0.4747			0.0000			0.0000
Off-Road	1.3707	16.8614	8.1883	0.0195		0.6707	0.6707		0.6170	0.6170		1,886.9744	1,886.9744	0.6103		1,902.2315
Total	**1.3707**	**16.8614**	**8.1883**	**0.0195**	**3.8043**	**0.6707**	**4.4749**	**0.4747**	**0.6170**	**1.0917**		**1,886.9744**	**1,886.9744**	**0.6103**		**1,902.2315**

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	1.0255	45.9754	4.9725	0.0791	0.6623	0.0612	0.7235	0.1821	0.0586	0.2407		8,292.8573	8,292.8573	1.1234		8,320.9410
Vendor	8.0900e-003	0.2492	0.0472	6.9000e-004	0.0167	1.2400e-003	0.0179	4.8000e-003	1.1900e-003	5.9900e-003		71.8686	71.8686	3.4800e-003		71.9557
Worker	0.0415	0.0241	0.3145	9.7000e-004	0.0912	6.0000e-004	0.0918	0.0242	5.5000e-004	0.0248		96.4821	96.4821	2.3900e-003		96.5418
Total	**1.0751**	**46.2487**	**5.3342**	**0.0808**	**0.7703**	**0.0630**	**0.8333**	**0.2111**	**0.0603**	**0.2714**		**8,461.2080**	**8,461.2080**	**1.1292**		**8,489.4385**

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					1.7119	0.0000	1.7119	0.2136	0.0000	0.2136			0.0000			0.0000
Off-Road	1.3707	16.8614	8.1883	0.0195		0.6707	0.6707		0.6170	0.6170	0.0000	1,886.9744	1,886.9744	0.6103		1,902.2315
Total	**1.3707**	**16.8614**	**8.1883**	**0.0195**	**1.7119**	**0.6707**	**2.3826**	**0.2136**	**0.6170**	**0.8306**	**0.0000**	**1,886.9744**	**1,886.9744**	**0.6103**		**1,902.2315**

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	1.0255	45.9754	4.9725	0.0791	0.6623	0.0612	0.7235	0.1821	0.0586	0.2407		8,292.8573	8,292.8573	1.1234		8,320.9410
Vendor	8.0900e-003	0.2492	0.0472	6.9000e-004	0.0167	1.2400e-003	0.0179	4.8000e-003	1.1900e-003	5.9900e-003		71.8686	71.8686	3.4800e-003		71.9557
Worker	0.0415	0.0241	0.3145	9.7000e-004	0.0912	6.0000e-004	0.0918	0.0242	5.5000e-004	0.0248		96.4821	96.4821	2.3900e-003		96.5418
Total	**1.0751**	**46.2487**	**5.3342**	**0.0808**	**0.7703**	**0.0630**	**0.8333**	**0.2111**	**0.0603**	**0.2714**		**8,461.2080**	**8,461.2080**	**1.1292**		**8,489.4385**

3.3 Building Construction - 2020

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	4.1225	40.4078	24.6258	0.0764		1.6039	1.6039		1.4755	1.4755		7,400.6989	7,400.6989	2.3935		7,460.5373
Total	**4.1225**	**40.4078**	**24.6258**	**0.0764**		**1.6039**	**1.6039**		**1.4755**	**1.4755**		**7,400.6989**	**7,400.6989**	**2.3935**		**7,460.5373**

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
Vendor	0.4695	14.4539	2.7355	0.0398	0.9674	0.0720	1.0393	0.2784	0.0688	0.3472		4,168.3779	4,168.3779	0.2021		4,173.4295
Worker	0.0311	0.0181	0.2359	7.3000e-004	0.0684	4.5000e-004	0.0689	0.0182	4.1000e-004	0.0186		72.3616	72.3616	1.7900e-003		72.4064
Total	**0.5006**	**14.4720**	**2.9714**	**0.0406**	**1.0358**	**0.0724**	**1.1082**	**0.2965**	**0.0692**	**0.3658**		**4,240.7394**	**4,240.7394**	**0.2039**		**4,245.8359**

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	4.1225	40.4078	24.6258	0.0764		1.6039	1.6039		1.4755	1.4755	0.0000	7,400.6989	7,400.6989	2.3935		7,460.5373
Total	**4.1225**	**40.4078**	**24.6258**	**0.0764**		**1.6039**	**1.6039**		**1.4755**	**1.4755**	**0.0000**	**7,400.6989**	**7,400.6989**	**2.3935**		**7,460.5373**

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
Vendor	0.4695	14.4539	2.7355	0.0398	0.9674	0.0720	1.0393	0.2784	0.0688	0.3472		4,168.3779	4,168.3779	0.2021		4,173.4295
Worker	0.0311	0.0181	0.2359	7.3000e-004	0.0684	4.5000e-004	0.0689	0.0182	4.1000e-004	0.0186		72.3616	72.3616	1.7900e-003		72.4064
Total	**0.5006**	**14.4720**	**2.9714**	**0.0406**	**1.0358**	**0.0724**	**1.1082**	**0.2965**	**0.0692**	**0.3658**		**4,240.7394**	**4,240.7394**	**0.2039**		**4,245.8359**

3.3 Building Construction - 2021

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	3.7590	34.2411	23.4327	0.0764		1.3577	1.3577		1.2490	1.2490		7,400.2847	7,400.2847	2.3934		7,460.1197
Total	**3.7590**	**34.2411**	**23.4327**	**0.0764**		**1.3577**	**1.3577**		**1.2490**	**1.2490**		**7,400.2847**	**7,400.2847**	**2.3934**		**7,460.1197**

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
Vendor	0.3870	13.2157	2.3708	0.0395	0.9673	0.0347	1.0021	0.2784	0.0332	0.3116		4,130.3227	4,130.3227	0.1919		4,135.1201
Worker	0.0289	0.0162	0.2159	7.0000e-004	0.0684	4.4000e-004	0.0689	0.0182	4.0000e-004	0.0186		69.8320	69.8320	1.6100e-003		69.8721
Total	**0.4159**	**13.2319**	**2.5867**	**0.0402**	**1.0358**	**0.0352**	**1.0709**	**0.2965**	**0.0336**	**0.3301**		**4,200.1547**	**4,200.1547**	**0.1935**		**4,204.9922**

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	3.7590	34.2411	23.4327	0.0764		1.3577	1.3577		1.2490	1.2490	0.0000	7,400.2846	7,400.2846	2.3934		7,460.1197
Total	**3.7590**	**34.2411**	**23.4327**	**0.0764**		**1.3577**	**1.3577**		**1.2490**	**1.2490**	**0.0000**	**7,400.2846**	**7,400.2846**	**2.3934**		**7,460.1197**

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
Vendor	0.3870	13.2157	2.3708	0.0395	0.9673	0.0347	1.0021	0.2784	0.0332	0.3116		4,130.3227	4,130.3227	0.1919		4,135.1201
Worker	0.0289	0.0162	0.2159	7.0000e-004	0.0684	4.4000e-004	0.0689	0.0182	4.0000e-004	0.0186		69.8320	69.8320	1.6100e-003		69.8721
Total	**0.4159**	**13.2319**	**2.5867**	**0.0402**	**1.0358**	**0.0352**	**1.0709**	**0.2965**	**0.0336**	**0.3301**		**4,200.1547**	**4,200.1547**	**0.1935**		**4,204.9922**

3.4 Trenching - 2020

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	0.9081	8.7354	7.0779	0.0184		0.3472	0.3472		0.3195	0.3195		1,778.7404	1,778.7404	0.5753		1,793.1224
Total	**0.9081**	**8.7354**	**7.0779**	**0.0184**		**0.3472**	**0.3472**		**0.3195**	**0.3195**		**1,778.7404**	**1,778.7404**	**0.5753**		**1,793.1224**

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	9.9000e-004	0.0446	4.8200e-003	8.0000e-005	6.4000e-004	6.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.3000e-004		8.0416	8.0416	1.0900e-003		8.0688
Vendor	8.0900e-003	0.2492	0.0472	6.9000e-004	0.0167	1.2400e-003	0.0179	4.8000e-003	1.1900e-003	5.9900e-003		71.8686	71.8686	3.4800e-003		71.9557
Worker	0.0207	0.0121	0.1573	4.8000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		48.2410	48.2410	1.1900e-003		48.2709
Total	**0.0298**	**0.3058**	**0.2092**	**1.2500e-003**	**0.0629**	**1.6000e-003**	**0.0645**	**0.0171**	**1.5300e-003**	**0.0186**		**128.1512**	**128.1512**	**5.7600e-003**		**128.2954**

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	0.9081	8.7354	7.0779	0.0184		0.3472	0.3472		0.3195	0.3195	0.0000	1,778.7404	1,778.7404	0.5753		1,793.1224
Total	**0.9081**	**8.7354**	**7.0779**	**0.0184**		**0.3472**	**0.3472**		**0.3195**	**0.3195**	**0.0000**	**1,778.7404**	**1,778.7404**	**0.5753**		**1,793.1224**

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	9.9000e-004	0.0446	4.8200e-003	8.0000e-005	6.4000e-004	6.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.3000e-004		8.0416	8.0416	1.0900e-003		8.0688
Vendor	8.0900e-003	0.2492	0.0472	6.9000e-004	0.0167	1.2400e-003	0.0179	4.8000e-003	1.1900e-003	5.9900e-003		71.8686	71.8686	3.4800e-003		71.9557
Worker	0.0207	0.0121	0.1573	4.8000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		48.2410	48.2410	1.1900e-003		48.2709
Total	**0.0298**	**0.3058**	**0.2092**	**1.2500e-003**	**0.0629**	**1.6000e-003**	**0.0645**	**0.0171**	**1.5300e-003**	**0.0186**		**128.1512**	**128.1512**	**5.7600e-003**		**128.2954**

3.5 Paving - 2021

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	1.9110	19.0463	11.8807	0.0377		0.6992	0.6992		0.6433	0.6433		3,653.7910	3,653.7910	1.1817		3,683.3337
Paving	3.1702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0812**	**19.0463**	**11.8807**	**0.0377**		**0.6992**	**0.6992**		**0.6433**	**0.6433**		**3,653.7910**	**3,653.7910**	**1.1817**		**3,683.3337**

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	0.0268	0.8785	0.1440	2.9700e-003	0.0635	3.0100e-003	0.0665	0.0174	2.8800e-003	0.0203		311.0103	311.0103	0.0118		311.3046
Vendor	0.0200	0.6836	0.1226	2.0400e-003	0.0500	1.8000e-003	0.0518	0.0144	1.7200e-003	0.0161		213.6374	213.6374	9.9300e-003		213.8855
Worker	0.0482	0.0270	0.3599	1.1700e-003	0.1141	7.3000e-004	0.1148	0.0303	6.7000e-004	0.0309		116.3866	116.3866	2.6800e-003		116.4535
Total	**0.0949**	**1.5890**	**0.6265**	**6.1800e-003**	**0.2276**	**5.5400e-003**	**0.2332**	**0.0621**	**5.2700e-003**	**0.0673**		**641.0343**	**641.0343**	**0.0244**		**641.6436**

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	1.9110	19.0463	11.8807	0.0377		0.6992	0.6992		0.6433	0.6433	0.0000	3,653.7910	3,653.7910	1.1817		3,683.3337
Paving	3.1702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0812**	**19.0463**	**11.8807**	**0.0377**		**0.6992**	**0.6992**		**0.6433**	**0.6433**	**0.0000**	**3,653.7910**	**3,653.7910**	**1.1817**		**3,683.3337**

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	0.0268	0.8785	0.1440	2.9700e-003	0.0635	3.0100e-003	0.0665	0.0174	2.8800e-003	0.0203		311.0103	311.0103	0.0118		311.3046
Vendor	0.0200	0.6836	0.1226	2.0400e-003	0.0500	1.8000e-003	0.0518	0.0144	1.7200e-003	0.0161		213.6374	213.6374	9.9300e-003		213.8855
Worker	0.0482	0.0270	0.3599	1.1700e-003	0.1141	7.3000e-004	0.1148	0.0303	6.7000e-004	0.0309		116.3866	116.3866	2.6800e-003		116.4535
Total	**0.0949**	**1.5890**	**0.6265**	**6.1800e-003**	**0.2276**	**5.5400e-003**	**0.2332**	**0.0621**	**5.2700e-003**	**0.0673**		**641.0343**	**641.0343**	**0.0244**		**641.6436**

3.6 Architectural Coating - 2021

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	79.6627					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1499	2.4024	4.3762	6.7200e-003		0.0458	0.0458		0.0422	0.0422		650.4794	650.4794	0.2104		655.7389
Total	**79.8126**	**2.4024**	**4.3762**	**6.7200e-003**		**0.0458**	**0.0458**		**0.0422**	**0.0422**		**650.4794**	**650.4794**	**0.2104**		**655.7389**

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0193	0.0108	0.1439	4.7000e-004	0.0456	2.9000e-004	0.0459	0.0121	2.7000e-004	0.0124		46.5546	46.5546	1.0700e-003		46.5814
Total	**0.0193**	**0.0108**	**0.1439**	**4.7000e-004**	**0.0456**	**2.9000e-004**	**0.0459**	**0.0121**	**2.7000e-004**	**0.0124**		**46.5546**	**46.5546**	**1.0700e-003**		**46.5814**

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	79.6627					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1499	2.4024	4.3762	6.7200e-003		0.0458	0.0458		0.0422	0.0422	0.0000	650.4794	650.4794	0.2104		655.7389
Total	**79.8126**	**2.4024**	**4.3762**	**6.7200e-003**		**0.0458**	**0.0458**		**0.0422**	**0.0422**	**0.0000**	**650.4794**	**650.4794**	**0.2104**		**655.7389**

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0193	0.0108	0.1439	4.7000e-004	0.0456	2.9000e-004	0.0459	0.0121	2.7000e-004	0.0124		46.5546	46.5546	1.0700e-003		46.5814
Total	**0.0193**	**0.0108**	**0.1439**	**4.7000e-004**	**0.0456**	**2.9000e-004**	**0.0459**	**0.0121**	**2.7000e-004**	**0.0124**		**46.5546**	**46.5546**	**1.0700e-003**		**46.5814**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9805	18.5332	33.5368	0.1434	10.2554	0.1122	10.3676	2.7530	0.1055	2.8585		14,587.4638	14,587.4638	0.6148		14,602.8348
Unmitigated	2.9805	18.5332	33.5368	0.1434	10.2554	0.1122	10.3676	2.7530	0.1055	2.8585		14,587.4638	14,587.4638	0.6148		14,602.8348

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	814.72	154.52	79.60	2,561,555	2,561,555
Parking Lot	0.00	0.00	0.00		
General Office Building	446.49	99.63	42.64	1,060,462	1,060,462
Total	1,261.21	254.15	122.24	3,622,017	3,622,017

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
General Light Industry	15.00	8.00	9.00	59.00	28.00	13.00	92	5	3
Parking Lot	15.00	8.00	9.00	0.00	0.00	0.00	0	0	0
General Office Building	15.00	8.00	9.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929
Parking Lot	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929
General Office Building	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	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	0.2971	2.7005	2.2684	0.0162		0.2052	0.2052		0.2052	0.2052		3,240.5677	3,240.5677	0.0621	0.0594	3,259.8248
NaturalGas Unmitigated	0.3848	3.4980	2.9383	0.0210		0.2659	0.2659		0.2659	0.2659		4,197.6246	4,197.6246	0.0805	0.0770	4,222.5689

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	33841	0.3650	3.3177	2.7869	0.0199		0.2522	0.2522		0.2522	0.2522		3,981.2926	3,981.2926	0.0763	0.0730	4,004.9514
General Office Building	1838.82	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.3320	216.3320	4.1500e-003	3.9700e-003	217.6175
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		**0.3848**	**3.4980**	**2.9383**	**0.0210**		**0.2659**	**0.2659**		**0.2659**	**0.2659**		**4,197.6246**	**4,197.6246**	**0.0805**	**0.0770**	**4,222.5689**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	26.2556	0.2832	2.5741	2.1622	0.0154		0.1956	0.1956		0.1956	0.1956		3,088.8975	3,088.8975	0.0592	0.0566	3,107.2532
General Office Building	1.2892	0.0139	0.1264	0.1062	7.6000e-004		9.6100e-003	9.6100e-003		9.6100e-003	9.6100e-003		151.6703	151.6703	2.9100e-003	2.7800e-003	152.5716
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		**0.2971**	**2.7005**	**2.2684**	**0.0162**		**0.2052**	**0.2052**		**0.2052**	**0.2052**		**3,240.5677**	**3,240.5677**	**0.0621**	**0.0594**	**3,259.8248**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.2437	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Unmitigated	11.2437	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378

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	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.1030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6900e-003	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Total	**11.2436**	**9.5000e-004**	**0.1042**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2231**	**0.2231**	**5.9000e-004**		**0.2378**

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	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.1030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6900e-003	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Total	**11.2436**	**9.5000e-004**	**0.1042**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2231**	**0.2231**	**5.9000e-004**		**0.2378**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/25/2020 12:03 PM

Aviator & Monte Vista Warehouse Project

Yolo/Solano AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	41.00	1000sqft	0.00	41,000.00	0
General Light Industry	468.23	1000sqft	17.06	468,232.00	0
Parking Lot	510.00	Space	13.31	580,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	6.8	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Aviator & Monte Vista Warehouse Project. YSAQMD. CO2 adjusted based on PG&E Corporate and Sustainability Report.

Land Use - Project includes two buildings totaling 509,232 sf (468,232 sf of warehouse and 41,000 sf of office) and 510 parking spaces (398 auto parking and 112 trailer parking) on 30.37 acres.

Construction Phase - Construction assumed to begin Aug 2020 and would be completed by March 2021.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Updated based on information from applicant.

Off-road Equipment - Assumed default equipment.

Off-road Equipment - Updated based on information from applicant.

Trips and VMT - Updated trips information per applicant.

On-road Fugitive Dust - Assumed 100% of roadway paved.

Grading - 30,000 cy of export.

Architectural Coating - Project would utlize no-VOC paint.

Vehicle Trips - Updated trip generation rates per Traffic Impact Analysis Memorandum (Omni Means 2018).

Road Dust - Assumed 100% roadways within project vicinity are paved.

Woodstoves - Fireplaces assumed to be gas fueled rather than wood fueled. Default quantities also assumed.

Area Coating - Application of no-VOC paint.

Construction Off-road Equipment Mitigation - Assumed compilance with basic fugitive dust reduction measures.

Energy Mitigation - Project would comply with 2019 Title 24 standards - nonres 30% less energy than 2016 standards.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Waste Mitigation - 75% reduction in the volume of waste was assumed in accordance with AB 341 (not mitigation).

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	5.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	5.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	5
tblAreaCoating	Area_EF_Nonresidential_Interior	150	5
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	45.00	10.00
tblConstructionPhase	NumDays	500.00	163.00
tblConstructionPhase	NumDays	35.00	11.00
tblConstructionPhase	NumDays	35.00	6.00
tblGrading	AcresOfGrading	45.00	22.00
tblGrading	MaterialExported	0.00	30,000.00
tblLandUse	LandUseSquareFeet	468,230.00	468,232.00
tblLandUse	LandUseSquareFeet	204,000.00	580,000.00

tblLandUse	LotAcreage	0.94	0.00
tblLandUse	LotAcreage	10.75	17.06
tblLandUse	LotAcreage	4.59	13.31
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Architectural Coating
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	HaulingPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00
tblOnRoadDust	VendorPercentPave	94.00	100.00

tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblOnRoadDust	WorkerPercentPave	94.00	100.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	94	100
tblSolidWaste	SolidWasteGenerationRate	580.61	631.45
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	179.00	116.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	453.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	4.00
tblTripsAndVMT	WorkerTripNumber	91.00	4.00
tblVehicleTrips	ST_TR	1.32	0.33
tblVehicleTrips	ST_TR	2.46	2.43
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.05	1.04
tblVehicleTrips	WD_TR	6.97	1.74
tblVehicleTrips	WD_TR	11.03	10.89
tblWater	IndoorWaterUseRate	108,278,187.50	117,759,437.50

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.2059	117.1328	43.7374	0.2091	5.6103	2.4213	8.0316	0.9824	2.2329	3.2153	0.0000	21,131.8450	21,131.8450	4.5233	0.0000	21,244.9279
2021	84.0284	68.3692	38.9358	0.1591	1.2634	2.0993	3.3627	0.3586	1.9328	2.2914	0.0000	15,747.0642	15,747.0642	3.8205	0.0000	15,842.5769
Maximum	**84.0284**	**117.1328**	**43.7374**	**0.2091**	**5.6103**	**2.4213**	**8.0316**	**0.9824**	**2.2329**	**3.2153**	**0.0000**	**21,131.8450**	**21,131.8450**	**4.5233**	**0.0000**	**21,244.9279**

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					
2020	7.2059	117.1328	43.7374	0.2091	3.5180	2.4213	5.9393	0.7213	2.2329	2.9542	0.0000	21,131.8449	21,131.8449	4.5233	0.0000	21,244.9279
2021	84.0284	68.3692	38.9358	0.1591	1.2634	2.0993	3.3627	0.3586	1.9328	2.2914	0.0000	15,747.0642	15,747.0642	3.8205	0.0000	15,842.5769
Maximum	**84.0284**	**117.1328**	**43.7374**	**0.2091**	**3.5180**	**2.4213**	**5.9393**	**0.7213**	**2.2329**	**2.9542**	**0.0000**	**21,131.8449**	**21,131.8449**	**4.5233**	**0.0000**	**21,244.9279**

	ROG	NOx	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**	**30.44**	**0.00**	**18.36**	**19.47**	**0.00**	**4.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.2437	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Energy	0.3848	3.4980	2.9383	0.0210		0.2659	0.2659		0.2659	0.2659		4,197.6246	4,197.6246	0.0805	0.0770	4,222.5689
Mobile	2.4767	19.4969	31.5622	0.1321	10.2554	0.1139	10.3693	2.7530	0.1071	2.8601		13,445.7913	13,445.7913	0.6311		13,461.5696
Total	**14.1052**	**22.9959**	**34.6048**	**0.1531**	**10.2554**	**0.3801**	**10.6355**	**2.7530**	**0.3733**	**3.1263**		**17,643.6390**	**17,643.6390**	**0.7122**	**0.0770**	**17,684.3763**

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	11.2437	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Energy	0.2971	2.7005	2.2684	0.0162		0.2052	0.2052		0.2052	0.2052		3,240.5677	3,240.5677	0.0621	0.0594	3,259.8248
Mobile	2.4767	19.4969	31.5622	0.1321	10.2554	0.1139	10.3693	2.7530	0.1071	2.8601		13,445.7913	13,445.7913	0.6311		13,461.5696
Total	**14.0174**	**22.1983**	**33.9349**	**0.1483**	**10.2554**	**0.3195**	**10.5749**	**2.7530**	**0.3127**	**3.0657**		**16,686.5821**	**16,686.5821**	**0.6938**	**0.0594**	**16,721.6321**

	ROG	**NOx**	**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	**0.62**	**3.47**	**1.94**	**3.13**	**0.00**	**15.95**	**0.57**	**0.00**	**16.24**	**1.94**	**0.00**	**5.42**	**5.42**	**2.58**	**22.80**	**5.44**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	8/1/2020	8/15/2020	5	10	
2	Building Construction	Building Construction	8/15/2020	3/31/2021	5	163	
3	Trenching	Trenching	9/1/2020	9/15/2020	5	11	
4	Paving	Paving	2/1/2021	2/15/2021	5	11	
5	Architectural Coating	Architectural Coating	3/1/2021	3/8/2021	5	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22

Acres of Paving: 13.31

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 763,848; Non-Residential Outdoor: 254,616; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	2	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Off-Highway Trucks	5	8.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Paving	Graders	1	8.00	187	0.41
Paving	Off-Highway Trucks	2	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Architectural Coating	Aerial Lifts	4	8.00	63	0.31

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
Grading	4	8.00	2.00	3,750.00	15.00	9.00	2.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	6.00	116.00	0.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	4.00	2.00	4.00	15.00	9.00	2.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	6.00	40.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	4.00	0.00	0.00	15.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2020

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					3.8043	0.0000	3.8043	0.4747	0.0000	0.4747			0.0000			0.0000
Off-Road	1.3707	16.8614	8.1883	0.0195		0.6707	0.6707		0.6170	0.6170		1,886.9744	1,886.9744	0.6103		1,902.2315
Total	**1.3707**	**16.8614**	**8.1883**	**0.0195**	**3.8043**	**0.6707**	**4.4749**	**0.4747**	**0.6170**	**1.0917**		**1,886.9744**	**1,886.9744**	**0.6103**		**1,902.2315**

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	1.1388	44.8175	7.1661	0.0723	0.6623	0.0707	0.7330	0.1821	0.0676	0.2498		7,571.1261	7,571.1261	1.2837		7,603.2187
Vendor	8.5000e-003	0.2541	0.0557	6.7000e-004	0.0167	1.2700e-003	0.0180	4.8000e-003	1.2200e-003	6.0200e-003		69.8850	69.8850	3.9300e-003		69.9834
Worker	0.0414	0.0304	0.2707	8.6000e-004	0.0912	6.0000e-004	0.0918	0.0242	5.5000e-004	0.0248		85.6165	85.6165	2.1000e-003		85.6691
Total	**1.1887**	**45.1020**	**7.4925**	**0.0738**	**0.7703**	**0.0726**	**0.8428**	**0.2111**	**0.0694**	**0.2805**		**7,726.6277**	**7,726.6277**	**1.2897**		**7,758.8712**

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					1.7119	0.0000	1.7119	0.2136	0.0000	0.2136			0.0000			0.0000
Off-Road	1.3707	16.8614	8.1883	0.0195		0.6707	0.6707		0.6170	0.6170	0.0000	1,886.9744	1,886.9744	0.6103		1,902.2315
Total	**1.3707**	**16.8614**	**8.1883**	**0.0195**	**1.7119**	**0.6707**	**2.3826**	**0.2136**	**0.6170**	**0.8306**	**0.0000**	**1,886.9744**	**1,886.9744**	**0.6103**		**1,902.2315**

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	1.1388	44.8175	7.1661	0.0723	0.6623	0.0707	0.7330	0.1821	0.0676	0.2498		7,571.1261	7,571.1261	1.2837		7,603.2187
Vendor	8.5000e-003	0.2541	0.0557	6.7000e-004	0.0167	1.2700e-003	0.0180	4.8000e-003	1.2200e-003	6.0200e-003		69.8850	69.8850	3.9300e-003		69.9834
Worker	0.0414	0.0304	0.2707	8.6000e-004	0.0912	6.0000e-004	0.0918	0.0242	5.5000e-004	0.0248		85.6165	85.6165	2.1000e-003		85.6691
Total	**1.1887**	**45.1020**	**7.4925**	**0.0738**	**0.7703**	**0.0726**	**0.8428**	**0.2111**	**0.0694**	**0.2805**		**7,726.6277**	**7,726.6277**	**1.2897**		**7,758.8712**

3.3 Building Construction - 2020

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	4.1225	40.4078	24.6258	0.0764		1.6039	1.6039		1.4755	1.4755		7,400.6989	7,400.6989	2.3935		7,460.5373
Total	**4.1225**	**40.4078**	**24.6258**	**0.0764**		**1.6039**	**1.6039**		**1.4755**	**1.4755**		**7,400.6989**	**7,400.6989**	**2.3935**		**7,460.5373**

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
Vendor	0.4930	14.7388	3.2277	0.0387	0.9674	0.0737	1.0411	0.2784	0.0705	0.3489		4,053.3316	4,053.3316	0.2282		4,059.0360
Worker	0.0310	0.0228	0.2030	6.4000e-004	0.0684	4.5000e-004	0.0689	0.0182	4.1000e-004	0.0186		64.2124	64.2124	1.5800e-003		64.2519
Total	**0.5241**	**14.7616**	**3.4307**	**0.0394**	**1.0358**	**0.0742**	**1.1100**	**0.2965**	**0.0709**	**0.3675**		**4,117.5440**	**4,117.5440**	**0.2298**		**4,123.2879**

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	4.1225	40.4078	24.6258	0.0764		1.6039	1.6039		1.4755	1.4755	0.0000	7,400.6989	7,400.6989	2.3935		7,460.5373
Total	**4.1225**	**40.4078**	**24.6258**	**0.0764**		**1.6039**	**1.6039**		**1.4755**	**1.4755**	**0.0000**	**7,400.6989**	**7,400.6989**	**2.3935**		**7,460.5373**

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
Vendor	0.4930	14.7388	3.2277	0.0387	0.9674	0.0737	1.0411	0.2784	0.0705	0.3489		4,053.3316	4,053.3316	0.2282		4,059.0360
Worker	0.0310	0.0228	0.2030	6.4000e-004	0.0684	4.5000e-004	0.0689	0.0182	4.1000e-004	0.0186		64.2124	64.2124	1.5800e-003		64.2519
Total	**0.5241**	**14.7616**	**3.4307**	**0.0394**	**1.0358**	**0.0742**	**1.1100**	**0.2965**	**0.0709**	**0.3675**		**4,117.5440**	**4,117.5440**	**0.2298**		**4,123.2879**

3.3 Building Construction - 2021

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	3.7590	34.2411	23.4327	0.0764		1.3577	1.3577		1.2490	1.2490		7,400.2847	7,400.2847	2.3934		7,460.1197
Total	**3.7590**	**34.2411**	**23.4327**	**0.0764**		**1.3577**	**1.3577**		**1.2490**	**1.2490**		**7,400.2847**	**7,400.2847**	**2.3934**		**7,460.1197**

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
Vendor	0.4087	13.4278	2.8203	0.0384	0.9673	0.0363	1.0036	0.2784	0.0347	0.3131		4,015.9625	4,015.9625	0.2171		4,021.3910
Worker	0.0289	0.0204	0.1851	6.2000e-004	0.0684	4.4000e-004	0.0689	0.0182	4.0000e-004	0.0186		61.9685	61.9685	1.4100e-003		62.0037
Total	**0.4376**	**13.4481**	**3.0054**	**0.0390**	**1.0358**	**0.0367**	**1.0725**	**0.2965**	**0.0351**	**0.3316**		**4,077.9310**	**4,077.9310**	**0.2186**		**4,083.3947**

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	3.7590	34.2411	23.4327	0.0764		1.3577	1.3577		1.2490	1.2490	0.0000	7,400.2846	7,400.2846	2.3934		7,460.1197
Total	**3.7590**	**34.2411**	**23.4327**	**0.0764**		**1.3577**	**1.3577**		**1.2490**	**1.2490**	**0.0000**	**7,400.2846**	**7,400.2846**	**2.3934**		**7,460.1197**

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
Vendor	0.4087	13.4278	2.8203	0.0384	0.9673	0.0363	1.0036	0.2784	0.0347	0.3131		4,015.9625	4,015.9625	0.2171		4,021.3910
Worker	0.0289	0.0204	0.1851	6.2000e-004	0.0684	4.4000e-004	0.0689	0.0182	4.0000e-004	0.0186		61.9685	61.9685	1.4100e-003		62.0037
Total	**0.4376**	**13.4481**	**3.0054**	**0.0390**	**1.0358**	**0.0367**	**1.0725**	**0.2965**	**0.0351**	**0.3316**		**4,077.9310**	**4,077.9310**	**0.2186**		**4,083.3947**

3.4 Trenching - 2020

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	0.9081	8.7354	7.0779	0.0184		0.3472	0.3472		0.3195	0.3195		1,778.7404	1,778.7404	0.5753		1,793.1224
Total	**0.9081**	**8.7354**	**7.0779**	**0.0184**		**0.3472**	**0.3472**		**0.3195**	**0.3195**		**1,778.7404**	**1,778.7404**	**0.5753**		**1,793.1224**

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	1.1000e-003	0.0435	6.9500e-003	7.0000e-005	6.4000e-004	7.0000e-005	7.1000e-004	1.8000e-004	7.0000e-005	2.4000e-004		7.3417	7.3417	1.2400e-003		7.3728
Vendor	8.5000e-003	0.2541	0.0557	6.7000e-004	0.0167	1.2700e-003	0.0180	4.8000e-003	1.2200e-003	6.0200e-003		69.8850	69.8850	3.9300e-003		69.9834
Worker	0.0207	0.0152	0.1354	4.3000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		42.8083	42.8083	1.0500e-003		42.8346
Total	**0.0303**	**0.3128**	**0.1980**	**1.1700e-003**	**0.0629**	**1.6400e-003**	**0.0646**	**0.0171**	**1.5700e-003**	**0.0186**		**120.0350**	**120.0350**	**6.2200e-003**		**120.1908**

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	0.9081	8.7354	7.0779	0.0184		0.3472	0.3472		0.3195	0.3195	0.0000	1,778.7404	1,778.7404	0.5753		1,793.1224
Total	**0.9081**	**8.7354**	**7.0779**	**0.0184**		**0.3472**	**0.3472**		**0.3195**	**0.3195**	**0.0000**	**1,778.7404**	**1,778.7404**	**0.5753**		**1,793.1224**

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	1.1000e-003	0.0435	6.9500e-003	7.0000e-005	6.4000e-004	7.0000e-005	7.1000e-004	1.8000e-004	7.0000e-005	2.4000e-004		7.3417	7.3417	1.2400e-003		7.3728
Vendor	8.5000e-003	0.2541	0.0557	6.7000e-004	0.0167	1.2700e-003	0.0180	4.8000e-003	1.2200e-003	6.0200e-003		69.8850	69.8850	3.9300e-003		69.9834
Worker	0.0207	0.0152	0.1354	4.3000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		42.8083	42.8083	1.0500e-003		42.8346
Total	**0.0303**	**0.3128**	**0.1980**	**1.1700e-003**	**0.0629**	**1.6400e-003**	**0.0646**	**0.0171**	**1.5700e-003**	**0.0186**		**120.0350**	**120.0350**	**6.2200e-003**		**120.1908**

3.5 Paving - 2021

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	1.9110	19.0463	11.8807	0.0377		0.6992	0.6992		0.6433	0.6433		3,653.7910	3,653.7910	1.1817		3,683.3337
Paving	3.1702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0812**	**19.0463**	**11.8807**	**0.0377**		**0.6992**	**0.6992**		**0.6433**	**0.6433**		**3,653.7910**	**3,653.7910**	**1.1817**		**3,683.3337**

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	0.0278	0.9051	0.1626	2.9000e-003	0.0635	3.1000e-003	0.0666	0.0174	2.9700e-003	0.0204		304.0546	304.0546	0.0133		304.3863
Vendor	0.0211	0.6945	0.1459	1.9800e-003	0.0500	1.8800e-003	0.0519	0.0144	1.7900e-003	0.0162		207.7222	207.7222	0.0112		208.0030
Worker	0.0481	0.0340	0.3085	1.0400e-003	0.1141	7.3000e-004	0.1148	0.0303	6.7000e-004	0.0309		103.2808	103.2808	2.3500e-003		103.3395
Total	**0.0970**	**1.6336**	**0.6170**	**5.9200e-003**	**0.2276**	**5.7100e-003**	**0.2333**	**0.0621**	**5.4300e-003**	**0.0675**		**615.0576**	**615.0576**	**0.0269**		**615.7288**

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	1.9110	19.0463	11.8807	0.0377		0.6992	0.6992		0.6433	0.6433	0.0000	3,653.7910	3,653.7910	1.1817		3,683.3337
Paving	3.1702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0812**	**19.0463**	**11.8807**	**0.0377**		**0.6992**	**0.6992**		**0.6433**	**0.6433**	**0.0000**	**3,653.7910**	**3,653.7910**	**1.1817**		**3,683.3337**

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	0.0278	0.9051	0.1626	2.9000e-003	0.0635	3.1000e-003	0.0666	0.0174	2.9700e-003	0.0204		304.0546	304.0546	0.0133		304.3863
Vendor	0.0211	0.6945	0.1459	1.9800e-003	0.0500	1.8800e-003	0.0519	0.0144	1.7900e-003	0.0162		207.7222	207.7222	0.0112		208.0030
Worker	0.0481	0.0340	0.3085	1.0400e-003	0.1141	7.3000e-004	0.1148	0.0303	6.7000e-004	0.0309		103.2808	103.2808	2.3500e-003		103.3395
Total	**0.0970**	**1.6336**	**0.6170**	**5.9200e-003**	**0.2276**	**5.7100e-003**	**0.2333**	**0.0621**	**5.4300e-003**	**0.0675**		**615.0576**	**615.0576**	**0.0269**		**615.7288**

3.6 Architectural Coating - 2021

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	79.6627					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1499	2.4024	4.3762	6.7200e-003		0.0458	0.0458		0.0422	0.0422		650.4794	650.4794	0.2104		655.7389
Total	**79.8126**	**2.4024**	**4.3762**	**6.7200e-003**		**0.0458**	**0.0458**		**0.0422**	**0.0422**		**650.4794**	**650.4794**	**0.2104**		**655.7389**

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0192	0.0136	0.1234	4.1000e-004	0.0456	2.9000e-004	0.0459	0.0121	2.7000e-004	0.0124		41.3123	41.3123	9.4000e-004		41.3358
Total	**0.0192**	**0.0136**	**0.1234**	**4.1000e-004**	**0.0456**	**2.9000e-004**	**0.0459**	**0.0121**	**2.7000e-004**	**0.0124**		**41.3123**	**41.3123**	**9.4000e-004**		**41.3358**

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	79.6627					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1499	2.4024	4.3762	6.7200e-003		0.0458	0.0458		0.0422	0.0422	0.0000	650.4794	650.4794	0.2104		655.7389
Total	**79.8126**	**2.4024**	**4.3762**	**6.7200e-003**		**0.0458**	**0.0458**		**0.0422**	**0.0422**	**0.0000**	**650.4794**	**650.4794**	**0.2104**		**655.7389**

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0192	0.0136	0.1234	4.1000e-004	0.0456	2.9000e-004	0.0459	0.0121	2.7000e-004	0.0124		41.3123	41.3123	9.4000e-004		41.3358
Total	**0.0192**	**0.0136**	**0.1234**	**4.1000e-004**	**0.0456**	**2.9000e-004**	**0.0459**	**0.0121**	**2.7000e-004**	**0.0124**		**41.3123**	**41.3123**	**9.4000e-004**		**41.3358**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4767	19.4969	31.5622	0.1321	10.2554	0.1139	10.3693	2.7530	0.1071	2.8601		13,445.7913	13,445.7913	0.6311		13,461.5696
Unmitigated	2.4767	19.4969	31.5622	0.1321	10.2554	0.1139	10.3693	2.7530	0.1071	2.8601		13,445.7913	13,445.7913	0.6311		13,461.5696

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	814.72	154.52	79.60	2,561,555	2,561,555
Parking Lot	0.00	0.00	0.00		
General Office Building	446.49	99.63	42.64	1,060,462	1,060,462
Total	1,261.21	254.15	122.24	3,622,017	3,622,017

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	15.00	8.00	9.00	59.00	28.00	13.00	92	5	3
Parking Lot	15.00	8.00	9.00	0.00	0.00	0.00	0	0	0
General Office Building	15.00	8.00	9.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929
Parking Lot	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929
General Office Building	0.523474	0.037926	0.194068	0.114815	0.021291	0.005457	0.036110	0.054974	0.001332	0.002002	0.006933	0.000689	0.000929

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	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	0.2971	2.7005	2.2684	0.0162		0.2052	0.2052		0.2052	0.2052		3,240.5677	3,240.5677	0.0621	0.0594	3,259.8248
NaturalGas Unmitigated	0.3848	3.4980	2.9383	0.0210		0.2659	0.2659		0.2659	0.2659		4,197.6246	4,197.6246	0.0805	0.0770	4,222.5689

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	33841	0.3650	3.3177	2.7869	0.0199		0.2522	0.2522		0.2522	0.2522		3,981.2926	3,981.2926	0.0763	0.0730	4,004.9514
General Office Building	1838.82	0.0198	0.1803	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.3320	216.3320	4.1500e-003	3.9700e-003	217.6175
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		**0.3848**	**3.4980**	**2.9383**	**0.0210**		**0.2659**	**0.2659**		**0.2659**	**0.2659**		**4,197.6246**	**4,197.6246**	**0.0805**	**0.0770**	**4,222.5689**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	26.2556	0.2832	2.5741	2.1622	0.0154		0.1956	0.1956		0.1956	0.1956		3,088.8975	3,088.8975	0.0592	0.0566	3,107.2532
General Office Building	1.2892	0.0139	0.1264	0.1062	7.6000e-004		9.6100e-003	9.6100e-003		9.6100e-003	9.6100e-003		151.6703	151.6703	2.9100e-003	2.7800e-003	152.5716
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		**0.2971**	**2.7005**	**2.2684**	**0.0162**		**0.2052**	**0.2052**		**0.2052**	**0.2052**		**3,240.5677**	**3,240.5677**	**0.0621**	**0.0594**	**3,259.8248**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.2437	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Unmitigated	11.2437	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378

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	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.1030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6900e-003	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Total	**11.2436**	**9.5000e-004**	**0.1042**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2231**	**0.2231**	**5.9000e-004**		**0.2378**

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	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.1030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6900e-003	9.5000e-004	0.1042	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2231	0.2231	5.9000e-004		0.2378
Total	**11.2436**	**9.5000e-004**	**0.1042**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2231**	**0.2231**	**5.9000e-004**		**0.2378**

Aviator & E. Monte Vista Warehouse Project

Project Construction Energy Demand

Construction Worker Gasoline Demand

Phase	Trips	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Grading	80	0.40	8.78	45.38
Building Construction	978	4.80	8.78	547.11
Trenching	44	0.22	8.78	24.95
Paving	110	0.53	8.78	60.22
Architectural Coating	24	0.12	8.78	13.13
Total				**690.79**

Construction Vendor Diesel Demand

Phase	Trips	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Grading	20	0.32	10.21	31.56
Building Construction	18,908	303.52	10.21	29,727.86
Trenching	22	0.35	10.21	34.71
Paving	66	1.05	10.21	103.19
Architectural Coating	0	0.00	10.21	0.00
Total				**29,897.33**

Construction Haul Diesel Demand

Phase	Trips	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Grading	3,750	36.24	10.21	3,549.54
Building Construction	0	0.00	10.21	0.00
Trenching	4	0.04	10.21	3.79
Paving	40	1.54	10.21	150.56
Architectural Coating	0	0.00	10.21	0.00
Total				**3,703.89**

Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO_2 (MT)	Kg CO2/Gallon	Gallons
Grading	5	8.56	10.21	838.32
Building Construction	8	547.16	10.21	53,590.81
Trenching	2	8.88	10.21	869.25
Paving	4	18.23	10.21	1,785.56
Architectural Coating	4	1.77	10.21	173.39
Total				**57,257.33**

Construction Equipment Usage

Phase	Hours of Use
Grading	320
Building Construction	10,432
Trenching	176
Paving	352
Architectural Coating	192
Total	**11,472**

Aviator & E. Monte Vista Warehouse Project

Project Operational Energy Demand

Mobile Source Gasoline Demand

Project Facility	Vehicle MT CO_2	Kg CO2/Gallon	Gallons
General Light Industry/General Office	1,583.99	8.78	180,409.37

Mobile Source Diesel Demand

Project Facility	Vehicle MT CO_2	Kg CO2/Gallon	Gallons
General Light Industry/General Office	131.03	10.21	12,833.53

Electricity Demand

Project Consumption	kWh/Year
General Light Industry/General Office	4,518,577.00
Water/Wastewater	692,256.32
Total	**5,210,833.32**

Natural Gas Demand

Project Facility	kBTu/Year
General Light Industry/General Office	10,053,857.00
Total	**10,053,857.00**

Appendix B

Biological Resources Evaluation

SYCAMORE ENVIRONMENTAL CONSULTANTS, INC.
6355 Riverside Blvd., Suite C, Sacramento, CA 95831
916/ 427-0703 www.sycamoreenv.com

15 January 2020

Chelsea Bowman
Development Project Manager
The Buzz Oates Group of Companies
555 Capitol Mall, Ninth Floor
Sacramento CA 95814

Office: (916) 379-3849
Mobile: (916) 778-9706

Subject: Biological Resources Evaluation for the Cessna Aviation Project, City of Vacaville, CA

Dear Ms. Bowman,

This letter summarizes the results of a Biological Resources Evaluation for the Cessna Aviation Project (Project) in the City of Vacaville, CA. Biological and wetland surveys were completed on 3 October 2017 and 11 July 2019. No Clean Water Act jurisdictional wetlands or waters were observed during the surveys. The Project study area provides marginal habitat for the following special-status species: Swainson's hawk, burrowing owl, white-tailed kite, northern harrier, migratory birds and birds of prey, and listed branchiopods (fairy shrimp). The site does not currently provide potential habitat for special-status plants.

METHODS

STUDY AREA

The approximately 30.49-acre Biological Study Area (BSA) consists of APN 0133-210-670, -680, -300, -290, and -710 at the northeast corner of Aviator Drive and Cessna Drive in the City of Vacaville, CA. The BSA is shown on the Biological Resources Map in Attachment A. Areas adjacent to the BSA were also searched for certain habitat components, such as raptor nesting habitat, elderberry shrubs, vernal pools, and other wetlands.

SPECIES EVALUATED

Species evaluated include species listed or proposed under the state and federal endangered species acts, California fully protected species, California species of special concern, and plant species ranked 1 or 2 by the California Native Plant Society (CNPS). Species requiring evaluation were determined from the U.S. Fish and Wildlife Service (USFWS) list for the Project (Appendix B), a California Natural Diversity Database (CNDDB) query for the Allendale and eight adjacent quads (Appendix C), and a query of CNPS Inventory (Appendix D). This letter discusses special-status species with potential to occur in the BSA, or that could be affected by the Project based on the results of the biological survey and each species' habitat requirements.

SURVEYS

Biological, botanical, and wetland surveys of APN 0133-210-670, -680, -300, and -290 were conducted by Sycamore Environmental biologists Mike Bower, M.S., Professional Wetland Scientist (#2230) and Adrienne Levoy on 3 October 2017. Biological, botanical, and wetland surveys of APN

0133-210-710 were conducted by Sycamore Environmental biologist Nicole Ibanez, B.S. on 11 July 2019. The biological surveys consisted of walking through the BSA while recording plants, wildlife, and habitat for special-status species. The botanical surveys were conducted in accordance with the California Department of Fish and Wildlife protocol (CDFW 2009, 2018). Sycamore Biologists conducted USFWS protocol surveys for the federally listed large branchiopods during 12 site visits between November 2017 and April 2018. The branchiopod surveys did not include APN 0133-210-710. No potentially suitable branchiopod habitat occurs on APN -710.

The BSA and adjacent areas were searched for potential raptor nesting trees and burrows suitable for burrowing owl. Binoculars were used to assist with detection and identification of wildlife. Plants were identified on sight or keyed using the Jepson Manual, 2nd ed. (Baldwin et al., eds. 2012). Vegetation was classified, photographed, and mapped. The wetland survey was conducted using the Routine On-Site Determination Method (Corps 1987). Soil, vegetation, and hydrology data were recorded at data points using the Wetland Determination Data Form for the Arid West Region (Corps 2008). Approximately 8 person-hours were spent surveying the site on 3 October 2017 and ±2 person-hours on 11 July 2019. Species observed are listed in Attachment E. Wetland data forms are in Attachment F. Photographs are in Attachment G.

RESULTS

ENVIRONMENTAL SETTING & HISTORY

The BSA is located north of Aviator Drive (formerly Piper Drive) between Cessna Drive and East Monte Vista Avenue within the Vacaville Business Park in the City of Vacaville, at the western edge of the Sacramento Valley. Elevation ranges between ± 100 to 120 feet above sea level. The surrounding landscape is mostly developed, with industrial and commercial uses intermixed with undeveloped land. Immediately north of the site is the Solano County Water Agency office building. Several buildings occur opposite the BSA south of Aviator Drive. Two self-storage units are on the corners of Aviator Drive and East Monte Vista. Ave. Other development has occurred along Vaca Valley Parkway and Cessna Drive. Adjacent undeveloped parcels are either tilled grassland or herbicide-treated ruderal areas. Putah South Canal occurs approximately 1,000 feet west of the site. Soils mapped on the site are Rincon Clay Loam and Corning Gravelly Loam (NRCS 1977).

The BSA has been heavily disturbed. The construction of the Putah South Canal (PSC) in the 1950's and mass grading in the Vacaville Business Park in the late 1980's to early 1990's permanently altered the topography and drainage patterns in the area. The roads and utilities in the business park were in place prior to 1993. Two intermittent drainages that once flowed through the BSA (shown on USGS Allendale quad map dated 1953, photo-revised 1968 and 1973) were realigned during the construction of the business park. The northern drainage now follows Vaca Valley Parkway eastward to the I-505 southbound on-ramp where it turns south. It is then culverted under I-505. The southern drainage passes over the PSC to a ditch that follows the general alignment of PSC southward before emptying into the Main Branch of Horse Creek. Neither realigned channel passes within 400 feet of the site.

Aerial photographs show a detention basin was constructed at the southeast corner of the site sometime prior to 1993 (Google Earth 2020). The site currently drains to the detention basin, which flows into two storm drains along East Monte Vista Avenue when it overtops. Since 1993, vegetation on the site appears to have been managed with disking, mowing, and herbicides. Erosion rills are common on the site.

BIOLOGICAL COMMUNITIES

At present, the site is mostly barren, having been treated with herbicide for approximately the last 10 years. Aside from curbside landscaping trees bordering the site, vegetation on the site consists mostly of sporadic young landscaping tree volunteers and ruderal weeds such as Russian thistle (*Salsola tragus*). A few small Fremont cottonwoods (*Populus fremontii*) in poor condition occur along the east side of the detention basin. Table 1 is a summary of biological communities in the BSA. Biological communities are shown on the Map of Biological Resources in Attachment A. Photos of the BSA are in Attachment G. No sensitive biological communities occur within the BSA.

Table 1. Biological Communities and Other Features in the BSA

Biological Community	Vegetation Alliances and CDFW Alliance Codes [1]	Acreage [2]
Ruderal / Herbicide-treated	--	27.26
Landscaping	--	2.48
Stormwater Detention Basin	--	0.75
Total:		30.49

[1] Communities in the BSA lack vegetation or are dominated by nonnative plants and therefore lack recognized vegetation alliances.
[2] Acreages were calculated using ArcMap functions.

TREES

Trees are protected by the City of Vacaville tree ordinance (City of Vacaville 2015). The City requires the acquisition of a tree removal permit to cut down, remove, or destroy a tree on any public or private property within the City. A tree is defined as any live woody plant having one or more well-defined perennial stems with an aggregate circumference of 31 inches (approximately 10 inches diameter) or more, when measured at 4 ½ feet above ground level. Mature curbside landscaping trees with diameters greater than 10 inches occur along East Monte Vista Avenue, Aviator Drive, and Cessna Drive. Mature coast live oaks (*Quercus agrifolia*) occur among them. A few young trees (probably volunteers) occur outside of landscaping on the interior of the site. Among the trees located on the interior of the site, outside of landscaping are several Fremont cottonwood (*Populus fremontii*), goldenrain (*Koelreuteria paniculata*), pecan (*Carya illinoinensis*), and black walnut (*Juglans hindsii*) trees, some of which exceed 10 inches diameter at breast height.

WATERS AND WETLANDS

No wetlands occur in the BSA. A manmade stormwater detention basin is present along with erosional features that convey precipitation runoff to the detention basin. Neither the erosional features nor the detention basin are potentially jurisdictional under Section 404 of the Clean Water Act (CWA). These features are discussed further below.

Erosional Features: Numerous erosional features occur in the BSA, particularly in the northern and northeastern portion of the BSA (see Photo 6 in Attachment G). The largest of these is approximately 2-3 feet wide, 6 inches deep, and occurs in two disjunct sections, each approximately 400 feet long, separated from one another by an approximately 40-foot section where water sheet-flows. The erosional features receive precipitation runoff from the BSA and the adjacent undeveloped land south of Vaca Valley Parkway. The erosional features do not receive water from any potentially jurisdictional feature. The erosional features drain to the stormwater detention basin, mainly at its northwest corner. Vegetation in the erosional features is absent or similar to the surrounding uplands with occasional Russian thistle. Flow in the erosional features is ephemeral. Based on aerial photographs, the erosional features formed after 2007, with most features apparent by 2010. It is not

surprising that erosional features have formed on a site that was previously rough-graded and maintained free of most vegetation. None of the erosion features are realigned natural features. Erosional features, including gullies, are generally not waters of the U.S. (Corps and EPA 2007).

Stormwater Detention Basin: The stormwater detention basin (see map in Attachment A and photos in Attachment G) was constructed at the southeast corner of the site prior to 1993 (Google Earth 2019). The approximately 0.75-acre basin is between 6 and 12 inches deep when inundated. The basin receives precipitation runoff from the BSA, especially through flows concentrated in the erosional features discussed above. Once full, water in the basin flows east across a concrete spillway and then into two storm drain inlets near East Monte Vista Avenue. Based on aerial photographs, the concrete spillway was installed in 2012. The installation may have been associated with repair of a failure of the eastern berm in 2010. The basin holds water seasonally, through March, often into April, and into May in wet years. Vegetation in the basin is sparse, similar to surrounding uplands. The primary ruderal species is turkey mullein (*Croton setigerus*). The detention basin exhibits indicators of wetland hydrology and wetland soil, but lacks wetland vegetation (turkey mullein is not a hydrophytic plant; Lichvar et al. 2016). The basin is constructed in an upland and is located at least 100 feet east of the historic intermittent drainages that were realigned prior to 1993. Storm drain features excavated in uplands are generally not waters of the U.S. (33 CFR 328.3).

SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR

With the exception of one white-tailed kite observed flying over the BSA on 3 October 2017, no special-status species were observed in the BSA during the biological surveys. No CNDDB records of special-status species overlap the site. No eBird (2020) sightings of Swainson's hawk, burrowing owl, white-tailed kite, or Northern harrier occur in the BSA or within 500 feet. No vernal pools, elderberry shrubs, habitat for listed amphibians, wetlands or riparian habitat occur in or near the BSA. Due to disturbance and vegetation management, the site does not currently provide habitat for any special-status plants. Plant species observed are listed in Attachment E. Special-status species with potential to occur in the BSA are discussed below.

Swainson's Hawk (*Buteo swainsoni* – State Threatened): No Swainson's hawks were observed in or near the BSA during the biological surveys. No potential raptor nests were observed in or within 250 feet of the BSA during the survey. Swainson's hawk may forage in the BSA but would not be expected to nest. The nearest potential nesting trees are over 0.20 mile away. An active nest was observed in a eucalyptus tree along Cotting Lane ± 0.26 mi north of the BSA in 2016 (CNDDB Occurrence #1936). Occurrence #1936 includes two polygons, the closest of which occurs approximately 0.21 mile north of the BSA, and represents a nest last observed in 2001 (this nest was searched for and not observed during the biological surveys conducted by Sycamore Environmental on 3 October 2017). Other CNDDB records for Swainson's hawk nests occur over a mile away from the BSA to the south and east. There are eBird sightings of Swainson's hawk to the east of the Project along I-505. There is no indication that the eBird sightings are associated with nests.

Burrowing Owl (*Athene cunicularia* – CDFW Special Concern): No burrowing owls or potentially occupied burrowing owl burrows were observed in or near the BSA during the 3 October 2017 and 11 July 2019 biological surveys. Sycamore Biologists Chuck Hughes, M.S., and Nicole Desideri also walked transects across the BSA on 17 October 2017 while looking for owls and burrows and did not observe any burrowing owl or potentially occupied burrows. The BSA provides marginal nesting and foraging habitat for burrowing owl due to the lack of herbaceous vegetation, which limits the prey

base. Two holes potentially suitable for occupancy were found under the sidewalk on the north side of Aviator Drive (see Photo 5 in Attachment G). The holes showed no sign of occupancy by owls or ground squirrels on 3 October 2017 and 17 October 2017. During the 17 October 2017 survey, it was observed that the holes had been filled. Burrowing owl are known to occur in the area. Several owls have been observed locally by Sycamore Environmental biologists in the past, including one burrowing owl in a burrow under the sidewalk along the north side of Aviator Drive, adjacent to the Project site in 2011. This previously occupied burrow is no longer occupied. CDFW (2012) survey guidelines define occupied sites as burrow sites where a burrowing owl has been observed occupying a burrow, or burrowing owl sign has been observed at a burrow, within the last three (3) years. Should ground squirrels or other animals dig new burrows on the property, burrowing owl could move into the newly excavated burrows.

White-tailed Kite (*Elanus leucurus*; CDFW Fully Protected) and Northern Harrier (*Circus cyaneus*; CDFW Special Concern): One white-tailed kite was observed flying over the BSA during the 3 October 2017 biological survey. No northern harriers were observed during the biological surveys. No potential raptor nests were observed in or within 250 feet of the BSA during the surveys. These raptors may forage in the BSA but would not be expected to nest. White-tailed kites typically nest in groves or riparian trees. Northern harriers may nest on the ground, typically in or adjacent to marsh habitat. The BSA has limited nesting potential for white-tailed kite and northern harrier. The nearest CNDDB record for white-tailed kite is approximately 1.5 miles to the southeast (Occurrence #57). The nearest CNDDB record for northern harrier is over 5 miles to the southwest, south of Fairfield (Occurrence #31).

Migratory Birds and Birds of Prey: All migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). Fish and Game Code §3503.5 protects all birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey). Birds of prey include raptors, falcons, and owls. Bird species observed foraging in or flying over the BSA are listed in Attachment E. Two inactive bird nests were observed near the top of one of the larger landscaping pine trees at the southern edge of the BSA on the north side of Aviator Drive during the 3 October 2017 survey. The nests are not large enough to have been used by raptors and were likely constructed by American crows. Trees, shrubs, and the ruderal / herbicide-treated land provide marginal potential nesting habitat for birds of prey and other migratory birds. Nests could become established during the 15 February to 31 August breeding season. Protected migratory birds include ground-nesting birds such as killdeer that do not require any vegetation for nesting.

Vernal Pool Branchiopods (*Branchinecta conservatio* – Federal Endangered; *B. lynchi* – Federal Threatened; *Lepidurus packardi* – Federal Endangered): Surveys were conducted in accordance with the USFWS Survey Guidelines for the Listed Large Branchiopods (13 November 2017). No anostrocans (fairy shrimp) or notostracans (tadpole shrimp) were found in the wet or dry season surveys. Vernal pool crustaceans that commonly co-occur with fairy and tadpole shrimp were found during the surveys. Federally listed vernal pool branchiopods do not occupy any portion of the BSA based on USFWS protocol survey results.

LOCAL POLICIES AND REGULATIONS

City of Vacaville General Plan Update: The City of Vacaville adopted a General Plan Update in 2015. The project site is designated Industrial Park and General Commercial in the general plan.

City of Vacaville Site Assessment Checklist for Special-status Species Habitat: The City of Vacaville requires all project applications to complete an initial site assessment checklist for special-status species. The information below is provided based on the results of the Biological Resources Evaluation:

- The BSA is within the low value conservation area per the City's Area of Concern Map for vernal pools.
- The BSA is not shown on the City's Area of Concern Map for CA red-legged frog.
- The BSA is not shown on or adjacent to a creekway on the City's Area of Concern map for priority drainages.
- There are no elderberry shrubs in the BSA or within 500 feet.
- There is no suitable aquatic or migration habitat for CA red-legged frog in the BSA or within 500 feet.
- There are no vernal pools in the BSA or within 500 feet.
- The stormwater detention basin is typically inundated through spring and provides marginal habitat for listed vernal pool branchiopods. No other features on-site or within 500 feet of the BSA provide potential habitat. USFWS protocol wet and dry season surveys for listed branchiopods were completed in 2018. Results were negative.
- Pescadero, Antioch, San Ysidro, and Solano soils are not present on the site. The site contains Rincon and Corning series soils (NRCS 1977).
- Wetlands on the site have been delineated in accordance with U.S. Army Corps methods. No potential wetlands occur on the site. No potential CWA jurisdictional features occur on the site. The detention basin is excavated in an upland and is exempt from CWA Section 404.

SUMMARY

Biological and wetland surveys of the 30.49-acre site were completed on 3 October 2017 and 11 July 2019. USFWS protocol surveys for the federally listed large branchiopods were completed in 2018. No potential CWA-jurisdictional wetlands or waters occur in the project area. No federally listed branchiopods were detected during the protocol survey. One white-tailed kite (CDFW fully protected) was observed flying over the BSA during the survey on 3 October 2017. No other special-status species were observed. Swainson's hawk (State threatened), burrowing owl (CDFW special concern), white-tailed kite (CDFW fully protected), northern harrier (CDFW special concern) may use the site for foraging. Burrowing owl could occupy burrows on the site, should new burrows become established. Other migratory birds and birds of prey protected under Fish and Game Code and the Migratory Bird Treaty Act could nest on the site.

Please contact me if you have any questions.

Regards,

Mike Bower, M.S., P.W.S.
Biologist

Attachment A. Biological Resources Map
Attachment B. USFWS List
Attachment C. CNDDB Query
Attachment D. CNPS Query
Attachment E. Species Observed
Attachment F. Wetland Data Forms
Attachment G. Photographs
Attachment H. Brachiopod Survey Results Letter

LITERATURE CITED

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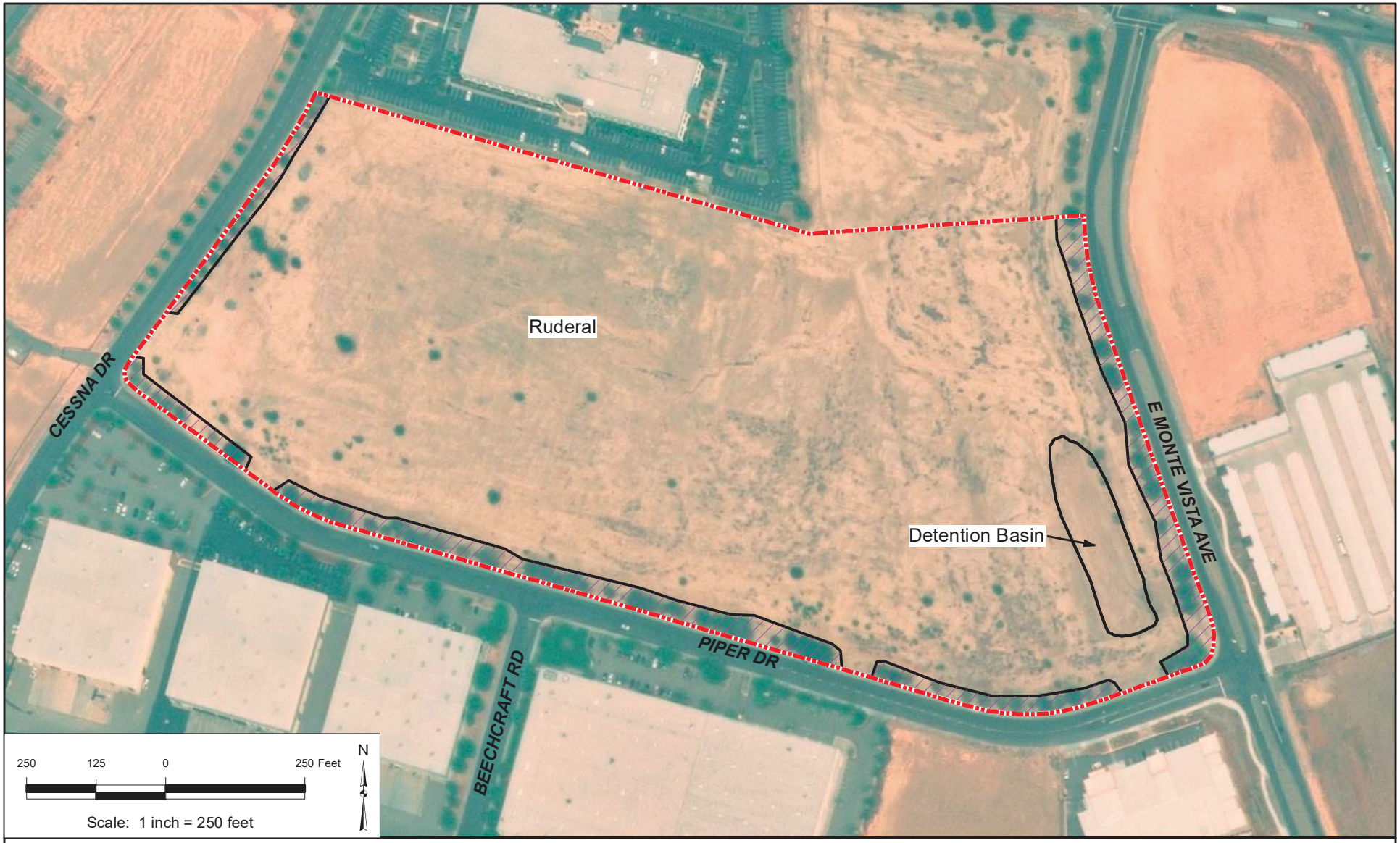
Attachment A

Biological Resources Map



Cessna Aviation Project
City of Vacaville, CA
8 August 2019

Biological Survey Area (BSA)
Biological Resource Boundary
Landscaping

Biological Resource	Area (ac)
Ruderal / Herbicide-treated	27.26
Stormwater Detention Basin	0.75
Landscaping	2.48
Total	**30.49**

SYCAMORE Environmental Consultants, Inc.

Aerial Photograph:
1 August 2018
2016NAIP USDA FSA Imagery
Arcmap Basemap Service Layer
Roads (TIGER Lines 2015)
US Census Bureau

Biological Resources Map

19046CessnaAPN170_BioResMap.mxd

Attachment B

USFWS List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: August 09, 2019
Consultation Code: 08ESMF00-2019-SLI-2702
Event Code: 08ESMF00-2019-E-08673
Project Name: Cessna Aviator Warehouse Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-2702

Event Code: 08ESMF00-2019-E-08673

Project Name: Cessna Aviator Warehouse Project

Project Type: ** OTHER **

Project Description: Approximate 30 acre project to construction one or more warehouses in a business park area.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.39240127444057N121.95626360376278W

Counties: Solano, CA

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Attachment C

CNDDB Query

(Allendale and eight surrounding quads)

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Monticello Dam (3812251) OR Winters (3812158) OR Merritt (3812157) OR Mt. Vaca (3812241) OR Allendale (3812148) OR Dixon (3812147) OR Fairfield North (3812231) OR Elmira (3812138) OR Dozier (3812137))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Astragalus tener var. ferrisiae Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
Atriplex persistens vernal pool smallscale	PDCHE042P0	None	None	G2	S2	1B.2
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Centromadia parryi ssp. parryi pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
Chloropyron molle ssp. hispidum hispid salty bird's-beak	PDSCR0J0D1	None	None	G2T1	S1	1B.1
Cicindela hirticollis abrupta Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051	None	None	G5T4T5	S2?	2B.1
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Elaphrus viridis Delta green ground beetle	IICOL36010	Threatened	None	G1	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Fritillaria pluriflora adobe-lily	PMLIL0V0F0	None	None	G2G3	S2S3	1B.2
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Hesperolinon breweri Brewer's western flax	PDLIN01030	None	None	G2	S2	1B.2
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Hydrochara ricksecker Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Isocoma arguta Carquinez goldenbush	PDAST57050	None	None	G1	S1	1B.1
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Lasiurus blossevillii western red bat	AMACC05060	None	None	G5	S3	SSC
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Layia septentrionalis Colusa layia	PDAST5N0F0	None	None	G2	S2	1B.2
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidium latipes var. heckardii Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T1	S1	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Leptosiphon jepsonii Jepson's leptosiphon	PDPLM09140	None	None	G2G3	S2S3	1B.2
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limosella australis Delta mudwort	PDSCR10030	None	None	G4G5	S2	2B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Myrmosula pacifica Antioch multilid wasp	IIHYM15010	None	None	GH	SH	
Navarretia leucocephala ssp. bakeri Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
Neostapfia colusana Colusa grass	PMPOA4C010	Threatened	Endangered	G1	S1	1B.1
Northern Claypan Vernal Pool Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Orcuttia inaequalis San Joaquin Valley Orcutt grass	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1
Plagiobothrys hystriculus bearded popcornflower	PDBOR0V0H0	None	None	G2	S2	1B.1
Puccinellia simplex California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
Saldula usingeri Wilbur Springs shorebug	IIHEM07010	None	None	G1	S1	
Sidalcea keckii Keck's checkerbloom	PDMAL110D0	Endangered	None	G2	S2	1B.1
Sorex ornatus sinuosus Suisun shrew	AMABA01103	None	None	G5T1T2Q	S1S2	SSC
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Stuckenia filiformis ssp. alpina slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Trifolium amoenum two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tuctoria mucronata Crampton's tuctoria or Solano grass	PMPOA6N020	Endangered	Endangered	G1	S1	1B.1
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Viburnum ellipticum	PDCPR07080	None	None	G4G5	S3?	2B.3
oval-leaved viburnum						

Record Count: 83

Attachment D

CNPS Query

(Allendale and eight surrounding quads)

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

40 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B], Found in Quads 3812251, 3812158, 3812157, 3812241, 3812148, 3812147, 3812231 3812138 and 3812137;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	1B.1	S1	G2T1
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Atriplex persistens	vernal pool smallscale	Chenopodiaceae	annual herb	Jun,Aug,Sep,Oct	1B.2	S2	G2
Calochortus pulchellus	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	Apr-Jun	1B.2	S2	G2
Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	annual herb	May-Nov	1B.2	S2	G3T2
Chloropyron molle ssp. hispidum	hispid bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	1B.1	S1	G2T1
Cicuta maculata var. bolanderi	Bolander's water-hemlock	Apiaceae	perennial herb	Jul-Sep	2B.1	S2?	G5T4T5
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2	G2
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2S3	G2G3
	woolly-headed gilia	Polemoniaceae	annual herb	May-Jul	1B.1	S1	G5T1

Gilia capitata ssp. tomentosa							
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	1B.2	S2	G2
Hesperolinon breweri	Brewer's western flax	Linaceae	annual herb	May-Jul	1B.2	S2	G2
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
Isocoma arguta	Carquinez goldenbush	Asteraceae	perennial shrub	Aug-Dec	1B.1	S1	G1
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G1
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)	1B.2	S2	G5T2
Layia septentrionalis	Colusa layia	Asteraceae	annual herb	Apr-May	1B.2	S2	G2
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
Lepidium latipes var. heckardii	Heckard's pepper-grass	Brassicaceae	annual herb	Mar-May	1B.2	S1	G4T1
Leptosiphon jepsonii	Jepson's leptosiphon	Polemoniaceae	annual herb	Mar-May	1B.2	S2S3	G2G3
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	1B.1	S2	G2
Limosella australis	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	May-Aug	2B.1	S2	G4G5
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G4T2
Neostapfia colusana	Colusa grass	Poaceae	annual herb	May-Aug	1B.1	S1	G1
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Poaceae	annual herb	Apr-Sep	1B.1	S1	G1
Plagiobothrys hystriculus	bearded popcornflower	Boraginaceae	annual herb	Apr-May	1B.1	S2	G2
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	S2	G3
Sidalcea keckii	Keck's checkerbloom	Malvaceae	annual herb	Apr-May(Jun)	1B.1	S2	G2
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3	G5T5
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	1B.2	S2	G2
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	Apr-Jun	1B.1	S1	G1
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
Tuctoria mucronata	Crampton's tuctoria or Solano grass	Poaceae	annual herb	Apr-Aug	1B.1	S1	G1
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5

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The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

Questions and Comments

rareplants@cnps.org

Attachment E

Plant and Wildlife Species Observed October 3, 2017 and July 11, 2019

Plant Species Observed.

Family	Scientific Name	Common Name	N/I [1]	Cal-IPC [2]
CONIFERS				
Cupressaceae	*Sequoia sempervirens* [3]	Coast redwood	N	
Pinaceae	*Pinus* sp. [3]	Pine	N	
EUDICOTS				
Asteraceae	*Baccharis pilularis*	Coyote bush	N	
	Erigeron (=*Conyza*) sp.	Horseweed	--	
	Dittrichia graveolens	Stinkwort	I	Moderate
Boraginaceae	*Heliotropium europaeum*	European heliotrope	I	
Brassicaceae	*Hirschfeldia incana*	Summer mustard	I	Moderate
Chenopodiaceae	*Salsola tragus*	Russian thistle, tumbleweed	I	Limited
Euphorbiaceae	*Croton setigerus*	Turkey-mullein	N	
	Triadica sebifera [3]	Chinese tallowtree	I	Moderate
Fagaceae	*Quercus agrifolia*	Coast live oak	N	
Juglandaceae	*Carya illinoinensis*	Pecan	I	
	Juglans regia	English walnut	I	
Lauraceae	*Cinnamomum camphora* [3]	Camphor tree	I	
Salicaceae	*Populus fremontii* ssp. *fremontii*	Fremont cottonwood	N	
Sapindaceae	*Koelreuteria paniculata*	Goldenrain tree	I	
MONOCOTS				
Poaceae	*Bromus diandrus*	Ripgut grass	I	Moderate
	Elymus caput-medusae	Medusa head	I	High
	Polypogon monspeliensis	Annual beard grass	I	Limited

[1] N = Native to CA; I = Introduced.

[2] Degree of negative ecological impact (Cal-IPC 2016).

[3] Observed only as a horticultural planting along a street.

Wildlife Species Observed.

Common Name	Scientific Name
REPTILES	
Western fence lizard	*Sceloporus occidentalis*
BIRDS	
American crow	*Corvus brachyrhynchos*
American kestrel	*Falco sparverius*
Anna's hummingbird	*Calypte anna*
California quail	*Callipepla californica*
California scrub-jay	*Aphelocoma californica*
Cooper's hawk	*Accipiter cooperii*
European starling	*Sturnus vulgaris*
Gull	*Larus* sp.
House finch	*Haemorhous mexicanus*
Mourning dove	*Zenaida macroura*
Say's phoebe	*Sayornis saya*
Spotted towhee	*Pipilo maculatus*
Turkey vulture	*Cathartes aura*
White-crowned sparrow	*Zonotrichia leucophrys*
White-tailed kite	*Elanus leucurus*
Yellow-rumped warbler	*Dendroica coronata*
MAMMALS	
Black-tailed jackrabbit	*Lepus californicus*

Attachment F

Wetland Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Cessna Aviation City/County: Vacaville, Solano Co Sampling Date: 10/3/2017
Applicant/Owner: Buzz Oates State: CA Sampling Point: **1**
Investigator(s): Mike Bower, M.S. Section, Township, Range: See report
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1
Subregion (LRR): C Lat: See report Long: See report Datum: See report
Soil Map Unit Name: See report NWI Classification: See report
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☒ Soil ☐, Or Hydrology ☐ Significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒	
Hydric Soil Present?	Yes ☒	No ☐	Is the Sampled Area
Wetland Hydrology Present?	Yes ☒	No ☐	within a Wetland? Yes ☐ No ☒

Remarks: Site was previously rough graded. Data point taken in deeper part of detention basin, near SE corner of basin.

VEGETATION

Tree Stratum: (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum: (Plot size:__ 5m radius___)			
1. *Croton setigerus*	5	D	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	5		

Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust 90%$

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL Species:	x 1 =
FACW Species	x 2 =
FAC Species	x 3 =
FACU Species	x 4 =
UPL Species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: Herbaceous vegetation appears to have been treated with herbicide in early 2017 and most of the site is barren.

SOIL

Sampling Point: **1**

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth Inches	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 4/2	93	7.5 YR 4/4	7	C	PL M	Silty clay	
3-10	10 YR 4/4	100					Sandy clay	

[1]Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☒ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Surface considerably darker, but only ~ 1/8 inches thick. Soil has been disturbed/graded in the past. Redox with diffuse boundaries.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface water (A1)
- ☐ High water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☒ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible-Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☐ No ☒ Depth (inches): _____
Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available:

Remarks:

Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Cessna Aviation City/County: Vacaville, Solano Co Sampling Date: 10/3/2017
Applicant/Owner: Buzz Oates State: CA Sampling Point: **2**
Investigator(s): Mike Bower, M.S. Section, Township, Range: See report
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1
Subregion (LRR): C Lat: See report Long: See report Datum: See report
Soil Map Unit Name: See report NWI Classification: See report
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☒ Soil ☐, Or Hydrology ☐ Significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒			
Hydric Soil Present?	Yes ☐	No ☒	Is the Sampled Area		
Wetland Hydrology Present?	Yes ☒	No ☐	within a Wetland?	Yes ☐	No ☒

Remarks: Site was previously rough graded. Data point taken in western edge of detention basin.

VEGETATION

Tree Stratum: (Plot size:_____)	**Absolute % Cover**	**Dominant Species?**	**Indicator Status**
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum: (Plot size:__ 5m radius___)			
1. *Salsola tragus*	5	D	UPL
2. *Croton setigerus*	3	D	UPL
3. *Dittrichia graveolens*	2	D	UPL
4.			
5.			
6.			
7.			
8.			
Total Cover:	10		

Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust 0%$

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL Species:		x 1 =
FACW Species		x 2 =
FAC Species		x 3 =
FACU Species		x 4 =
UPL Species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: Herbaceous vegetation appears to have been treated with herbicide in early 2017 and most of the site is barren.

SOIL

Sampling Point: **2**

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 4/3	100					Silt loam	
2-6	10 YR 4/3	97	7.5 YR 4/4	3	C	M	Clay loam	

[1]Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface water (A1)
- ☐ High water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible-Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Cessna Aviation City/County: Vacaville, Solano Co Sampling Date: 10/3/2017
Applicant/Owner: Buzz Oates State: CA Sampling Point: **3**
Investigator(s): Mike Bower, M.S. Section, Township, Range: See report
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 1
Subregion (LRR): C Lat: See report Long: See report Datum: See report
Soil Map Unit Name: See report NWI Classification: See report
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☒ Soil ☐, Or Hydrology ☐ Significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒			
Hydric Soil Present?	Yes ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Wetland Hydrology Present?	Yes ☒	No ☐			

Remarks: Site was previously rough graded. Data point taken in northern part of detention basin.

VEGETATION

Tree Stratum: (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum: (Plot size:__ 5m radius___)			
1. *Croton setigerus*	13	D	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	13		

Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 87 % Cover of Biotic Crust 50%$

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL Species:		x 1 =
FACW Species		x 2 =
FAC Species		x 3 =
FACU Species		x 4 =
UPL Species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: Herbaceous vegetation appears to have been treated with herbicide in early 2017 and most of the site is barren.

SOIL

Sampling Point: **3**

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth Inches	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2	80	7.5 YR 4/4	2	C	M, PL	Silty clay	One mixed layer
0-6	10 YR 4/3	10					Silty clay	One mixed layer
0-6	10 YR 4/4	8					Silty clay	One mixed layer

[1]Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks: Soil appears mixed; nascent redoximorphic features present, but difficult to quantify among mixed soil colors.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface water (A1)
- ☐ High water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☒ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible-Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☐ No ☒ Depth (inches): _____
Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Cessna Aviation City/County: Vacaville, Solano Co Sampling Date: 10/3/2017
Applicant/Owner: Buzz Oates State: CA Sampling Point: **4**
Investigator(s): Mike Bower, M.S. Section, Township, Range: See report
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 1
Subregion (LRR): C Lat: See report Long: See report Datum: See report
Soil Map Unit Name: See report NWI Classification: See report
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☒ Soil ☐, Or Hydrology ☐ Significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒			
Hydric Soil Present?	Yes ☐	No ☒	Is the Sampled Area		
Wetland Hydrology Present?	Yes ☒	No ☐	within a Wetland?	Yes ☐	No ☒

Remarks: Site was previously rough graded. Data point taken in area with surface soil cracks near center of BSA.

VEGETATION

Tree Stratum: (Plot size:_____)	**Absolute % Cover**	**Dominant Species?**	**Indicator Status**
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum: (Plot size:__ 5m radius___)			
1. *Salsola tragus*	20	D	UPL
2. *Dittrichia graveolens*	2		
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	22		

Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 78 % Cover of Biotic Crust 0%$

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL Species:	x 1 =
FACW Species	x 2 =
FAC Species	x 3 =
FACU Species	x 4 =
UPL Species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: Herbaceous vegetation appears to have been treated with herbicide in early 2017 and most of the site is barren.

SOIL

Sampling Point: **4**

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/4	100					Silt loam	

[1]Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks: No redoximorphic features observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface water (A1)
- ☐ High water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible-Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? **Yes** ☐ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region
Routine Wetland Determination
(September 2008 V2.0 COE Arid West Wetlands Delineation Manual)

Project/Site: Cessna Aviation City/County: Vacaville, Solano Co Sampling Date: 10/3/2017
Applicant/Owner: Buzz Oates State: CA Sampling Point: **5**
Investigator(s): Mike Bower, M.S. Section, Township, Range: See report
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1
Subregion (LRR): C Lat: See report Long: See report Datum: See report
Soil Map Unit Name: See report NWI Classification: See report
Are climatic/hydrologic conditions on the site typical for this time of the year? Yes ☒ No ☐ (If no, explain in remarks.)
Are Vegetation ☒ Soil ☐, Or Hydrology ☐ Significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐ Soil ☐, Or Hydrology ☐ Naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒			
Hydric Soil Present?	Yes ☐	No ☒	Is the Sampled Area		
Wetland Hydrology Present?	Yes ☒	No ☐	within a Wetland?	Yes ☐	No ☒

Remarks: Site was previously rough graded. Data point taken in area with surface soil cracks in northern portion of BSA. Water sheet flows through this area.

VEGETATION

Tree Stratum: (Plot size:_____)	**Absolute % Cover**	**Dominant Species?**	**Indicator Status**
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum: (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum: (Plot size:__ 5m radius___)			
1. *Salsola tragus*	3	D	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	3		

Woody Vine Stratum: (Plot size:_____)			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 97 % Cover of Biotic Crust 0%$

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL Species:		x 1 =
FACW Species		x 2 =
FAC Species		x 3 =
FACU Species		x 4 =
UPL Species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: Herbaceous vegetation appears to have been treated with herbicide in early 2017 and most of the site is barren.

SOIL

Sampling Point: **5**

Profile Description: (Describe the depth needed to document the Indicator or confirm the absence of Indicators.)

Depth	Matrix		Redox Features					
Inches	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 4/4	100					Silty clay	
4-8	10 YR 4/3	98	7.5 YR 4/4	2	C	PL	Silty clay	

[1]Type : C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks: Redoximorphic features present below 4 inches, but faint and not abundant.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface water (A1)
- ☐ High water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☒ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible-Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☐ No ☒ Depth (inches): _____
Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, if available:

Remarks: Erosion features deposit sediment in this area.

Attachment G

Photographs

Photo 1. View looking west along Aviator Drive. Landcaping trees occur along Aviator Drive. Russian thistle (*Salsola tragus*) visible on the site at right. 3 October 2017.

Photo 2. View looking east toward site from along Cessna Drive at western boundary of the BSA. Almost no vegetation is present. 3 October 2017.

Photo 3. View north toward the stormwater detention basin from its southern edge. The gray-green plant growing in the basin is turkey mullein (*Croton setigerus*). 3 October 2017.

Photo 4. View southwest toward the concrete spillway at the eastern edge of the stormwater detention basin. East Monte Vista Avenue in background. 3 October 2017.

Photo 5. View of two burrows observed along north side of Aviator Drive. 3 October 2017.

Photo 6. View northeast toward small erosion features near the center of the BSA. 3 October 2017.

Attachment H

Brachiopod Survey Results

SYCAMORE ENVIRONMENTAL CONSULTANTS, INC.
6355 Riverside Blvd., Suite C, Sacramento, CA 95831
916/ 427-0703 www.sycamoreenv.com

13 June 2018

Ms. Sarah Markegard
Recovery Biologist
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

Subject: Results of Listed Large Branchiopod Surveys for the Cessna Drive Project in the City of Vacaville, Solano County, CA. USFWS Reference #2018-TA-0096.

Dear Ms. Markegard:

The purpose of this letter is to report the results of dry and wet season surveys conducted pursuant to U.S. Fish and Wildlife Service (USFWS) *Survey Guidelines for the Listed Large Branchiopods* (13 November 2017). USFWS authorized the surveys via email on 12 October 2017 (Attachment A; USFWS Reference #2018-TA-0096).

Please note that when the surveys were authorized, and when the dry season soil was collected, a previous version of the *Survey Guidelines* from 2015 was current. None of the 2017 revisions to the *Survey Guidelines* affected the procedures or results for this Project. Conditions were suitable for conducting wet season surveys at the site during the 2017-2018 wet season.

Project Location

The Project is on four parcels (APNs 0133-210-670, -680, -300, and -290) located on the north side of Aviator Drive. Aviator Drive was formerly named Piper Drive. Cessna Drive is along the west side of the Project. A fifth parcel (APN 0133-120-280), adjacent to the other four, was also included in the branchiopod surveys, but is not part of the Project. A map in Attachment B includes all of the parcels included in the branchiopod survey.

The Project is on the Allendale USGS topographic quadrangle, in the Lower Sacramento watershed (hydrologic unit code 18020109). A location map is in Attachment B. The Project is located at UTM coordinates 591,249 meters E, 4,249,879 meters N, Zone 10S (WGS84).

Site Background and Description

The project site is zoned industrial/commercial. The adjacent road network and developed parcels have been in place since at least 1993 based on available aerial photographs. The site appears to have been graded prior to 1993; natural topography no longer exists. The entire site is managed with herbicide and is mostly barren. Invasive Russian thistle (*Salsola tragus*) occurs in moderate abundance. A shallow stormwater detention basin occurs at the southeast corner of the site (Feature 1; just northwest of the intersection of Piper/Aviator Drive and East Monte Vista Avenue). The ± 0.75-acre detention basin ponds water periodically during the wet season. Smaller puddles that form

during the wet season were also included in the survey (Features 2 through 7). None of the features at the site are naturally-occurring. They have formed as a result of grading. Based on observations during the wet season, Feature 2 does not have a sufficient hydroperiod to support listed branchiopods, and Features 3–7 are marginal. The features are shown on the map in Attachment B. Photographs are in Attachment C.

Survey Methods

Wet and dry season surveys followed the protocol described in the 2017 USFWS Guidelines for the Listed Large Branchiopods for Survey Zone A. Sycamore Environmental requested permission to initiate the surveys on 6 October 2017. USFWS granted permission on 12 October 2017. Dry season soil collection occurred on 17 October 2017. Soil was dry at the time of collection. The dry season survey table below identifies the size of each feature and the number of soil aliquots collected. Soil samples were sent to D. Christopher Rogers for analysis.

Dry Season Survey Table

Feature	Acreage	Soil aliquots collected
F1	0.812	100
F2	0.107	50
F3	0.034	30
F4	0.027	30
F5	0.016	25
F6	0.028	30
F7	0.097	30
Total:	**1.121**	**295**

The wet season survey table below identifies the dates that each feature was inundated. Wet season surveys began on 18 November 2015 after the first substantial rainfall. All of the features were dry on that day, except for Feature 4 which had 4 centimeters of water. Throughout the season, whenever a feature contained at least 3 cm of water, the feature was sampled with a dip net. The last survey date was 25 April 2018. I conducted all survey events under 10(a)(1)(A) permit TE-799564-4, with the assistance of Nicole Desideri for two survey events. Various areas within each feature were sampled during each event, including edges, bottoms, the middle of the water column, and unusual features that sometimes attract invertebrates such as stones and shiny litter.

Wet Season Survey Table

Date	F1	F2	F3	F4	F5	F6	F7	Cumulative Precip. (inches)
	Blue cells indicate inundation, and the % of max. depth is reported.							
18 Nov 2017				17%				**1.93**
2 Dec 2017								**2.18**
23 Dec 2017								**2.22**
6 Jan 2018								**2.76**
17 Jan 2018	89%			65%	100%	64%		**6.28**
31 Jan 2018	96%	NA [2]	91%	70%	27%	60%	100%	**7.05**
14 Feb 2018	76%							**7.05**
28 Feb 2018	73%							**7.39**
14 Mar 2018	100%	NA [2]	100%	96%	100%	60%	90%	**10.57**
28 Mar 2018	73%		64%	100%	73%	60%	90%	**13.83**
11 Apr 2018	95%		82%	74%	87%	100%	100%	**15.45**
25 Apr 2018	75%			22%				**15.48**
Max. Observed Hydroperiod (Days) [1]:	**99**	**<14**	**29**	**43**	**29**	**29**	**29**	**--**

[1] The hydroperiod reported here is the maximum observed based on the survey schedule. The actual maximum hydroperiod is at least a few days more.

[2] Feature 2 was determined over the course of the surveys to not have any potential to support listed branchiopods due to insufficient hydroperiod. Feature 2 had 5 cm of maximum depth on 14 March and less than 3 cm on 31 January.

Survey Results

No anostrocans (fairy shrimp) or notostracans (tadpole shrimp) were found in the wet or dry season surveys. Vernal pool crustaceans that commonly co-occur with fairy and tadpole shrimp were found and are reported in the survey data in Attachment D. Christopher Rogers' results letter for the dry season survey is in Attachment E.

There is a rain gauge at the Vacaville Airport about one mile south of the Project site. From 1 July 2017 to 25 April 2018, Vacaville received 15.48 inches of precipitation. Vacaville typically receives 23.11 inches of precipitation during that period. The area received about 67% of normal rainfall during the wet season survey (NWS 2018). Although the 2017-2018 wet season had less than normal precipitation, most of the features in the BSA experienced hydroperiods sufficient for wet season detection of listed branchiopods due to a much wetter than normal March. Other aquatic crustaceans that often co-occur with listed branchiopods were detected. With the exception of Feature 1, all of the features included are puddles that form in a previously graded area. They were not determined beforehand to necessarily be potential habitat for listed branchiopods. They were included for thoroughness.

Feature 1: Feature (F) 1 is a shallow stormwater detention basin. Berms on the south and east sides retain the water. A concrete apron has been constructed as the spillway of the basin. When F1 is full, water flows over the spillway and into a storm drain. The maximum observed hydroperiod for F1 spanned 99 days.

Feature 2: F2 is in an open depression. It drains into F1. After observations over the wet season, we determined that F2 does not have a sufficient hydroperiod to support listed branchiopods. F2 never had more than 5 centimeters of water and remained inundated for less than 2 weeks.

Features 3–7: These features are puddles that form in low spots with poor drainage on the graded parcels. The maximum observed hydroperiods were between 20 and 43 days.

Please contact me if you have any questions. I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Cordially,

Chuck Hughes, M.S.
Senior Biologist (TE-799564-4)
13 June 2018

c: Mr. Jason Gray, Buzz Oates.

Attachment A. USFWS Survey Authorization
Attachment B. Location Map and Site Map
Attachment C. Photographs
Attachment D. Survey Data
Attachment E. Dry season results letter
Attachment F. Field Data Sheets

Literature Cited

National Weather Service (NWS) Forecast Office, Sacramento, CA. Accessed 10 May 2018. Observed weather reports: Vacaville Airport. http://w2.weather.gov/climate/index.php?wfo=sto

U.S. Fish and Wildlife Service (USFWS). Revised 13 November 2017. Survey guidelines for the listed large branchiopods. U.S. Fish and Wildlife Service, Sacramento, CA.

ATTACHMENT A.

USFWS Survey Authorization

Charles Hughes

From: Markegard, Sarah <sarah_markegard@fws.gov>
Sent: Thursday, October 12, 2017 9:21 AM
To: Charles Hughes
Cc: Michael J. Bower; Kellie Berry
Subject: Re: Request for VP Branchiopod Survey - Cessna Aviation Project

Chuck Hughes,

By this email message, you are authorized to conduct dry-season surveys (2017) and wet-season surveys (2017-2018) for federally-listed large branchiopods, per the conditions of recovery permit TE-799564-4 and as specified in your email request dated October 6, 2017.

The surveys will be conducted for the Cessna Aviation Project located at the northeast corner of Aviator Drive and Cessna Drive in the City of Vacaville, Solano County, CA. Surveys may be conducted within all seasonally inundated wetlands identified on-site that may provide suitable vernal pool crustacean habitat. Suitable habitat not previously identified on the project site may also be sampled under this authorization.

Remember to carry a copy of your permit while doing the work, and to follow the terms and conditions of your permit, as well as the May 31, 2015 USFWS Survey Guidelines for the Listed Large Branchiopods, including the reporting requirements.

In your reports, please include which surveys were authorized, the names of all persons involved in the surveys, their recovery permit numbers, if applicable, and the date of this authorization, to help ensure that we correctly record the fulfillment of the reporting requirement under this authorization. Please let us know if the surveys are not performed as authorized, or if they are done by a different permittee under a separate authorization. This authorization does not include access to the property which must be arranged with the landowner or manager.

Please send electronic copies of the report(s) to Sarah Markegard, of our Listing and Recovery Division and Kellie Berry, Sacramento Valley Division Chief. **We ask that you use UTM coordinates for all spatial data and that you use Service Reference # 2018-TA-0096 in future correspondence.**

To ensure the accuracy and data integrity of your project, it is requested that you provide spatial information (boundaries, study areas, parcels, point locations, etc.) in the form of an ESRI shape file with projection, a GPS file with projection, or locations in an Excel spreadsheet with projection information. The preferred projection is UTM, Zone 10S, NAD83; the Sacramento Fish and Wildlife Office (SFWO) standard. FGDC compliant metadata must accompany each file. Please include any USFWS File Numbers associated with the data in your documentation. For additional information regarding metadata standards refer to http://www.fgdc.gov. For more information regarding spatial data please contact: Cheryl L. Hickam, GIS Branch Chief, U.S. Fish and Wildlife Service, 2800 Cottage Way, Suite W-2605, Sacramento, Ca 95825-1846, office: 916-414-6708.

On Fri, Oct 6, 2017 at 5:43 PM, Michael J. Bower <Mike.Bower@sycamoreenv.com> wrote:

> Hello Sarah –

Please find attached our request to conduct dry and wet season surveys for vernal pool branchiopods at the Cessna Aviation Project in Vacaville, CA.

Note: We are hoping to have authorization as soon as possible in order to complete the dry season sampling before winter rains arrive.

If any questions, please contact myself or Chuck Hughes (authorized on USFWS branchiopod recovery permit #TE799564-4).

Kind regards,

Mike Bower

MIKE BOWER, M.S.

BIOLOGIST / BOTANIST

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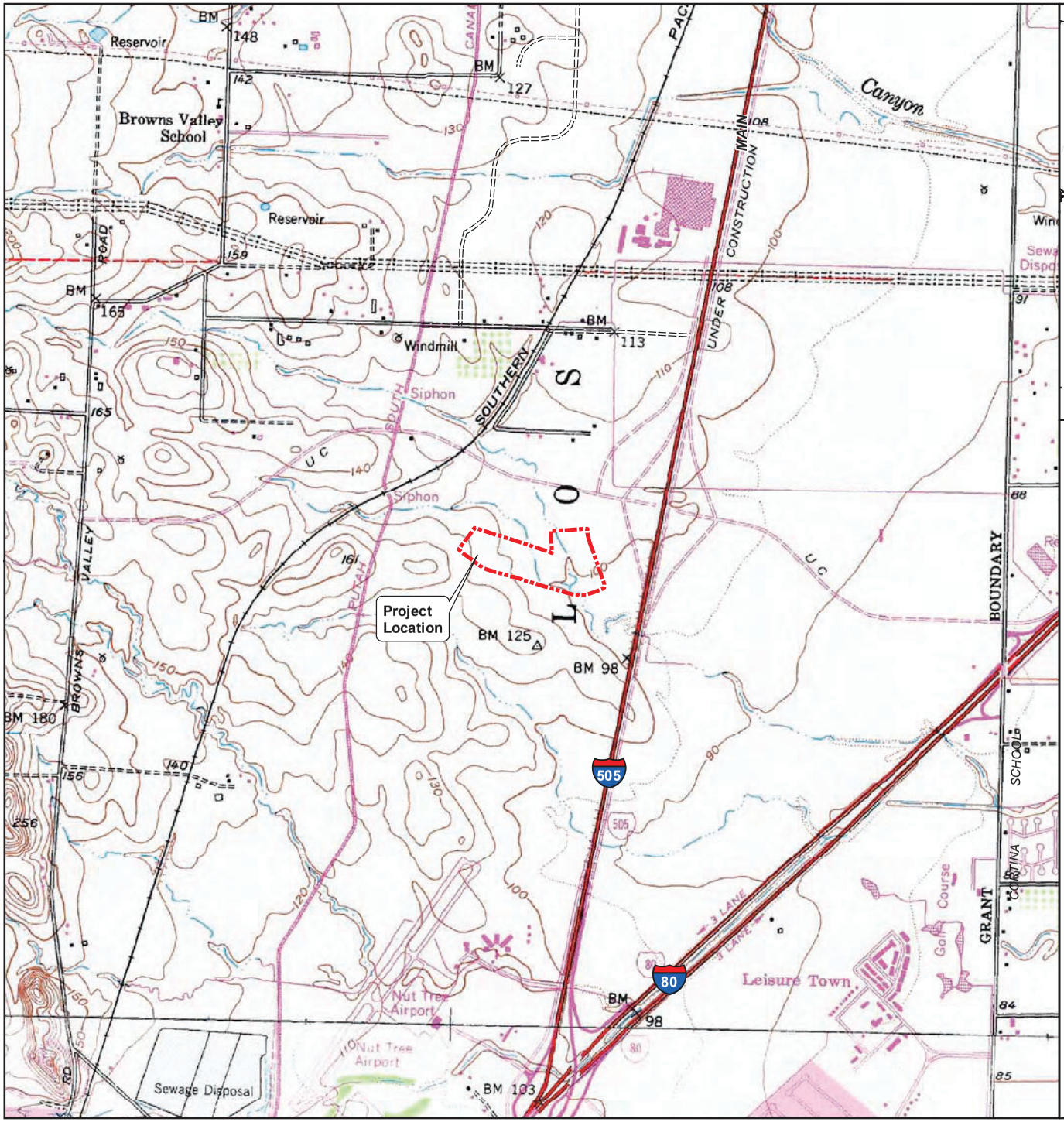
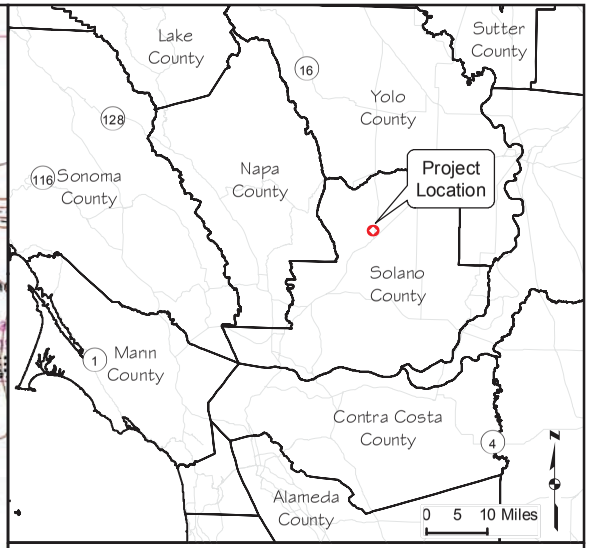
--

Sarah Markegard
Biologist, Listing and Recovery Division
USFWS, Sacramento Field Office
2800 Cottage Way W-2605
Sacramento, CA 95825-1888
916-414-6492

ATTACHMENT B.

Location Map and Site Map





Cessna Project
City of Vacaville, CA
12 June 2018

Project Location Map

Project Location

2,000 1,000 0 2,000 Feet

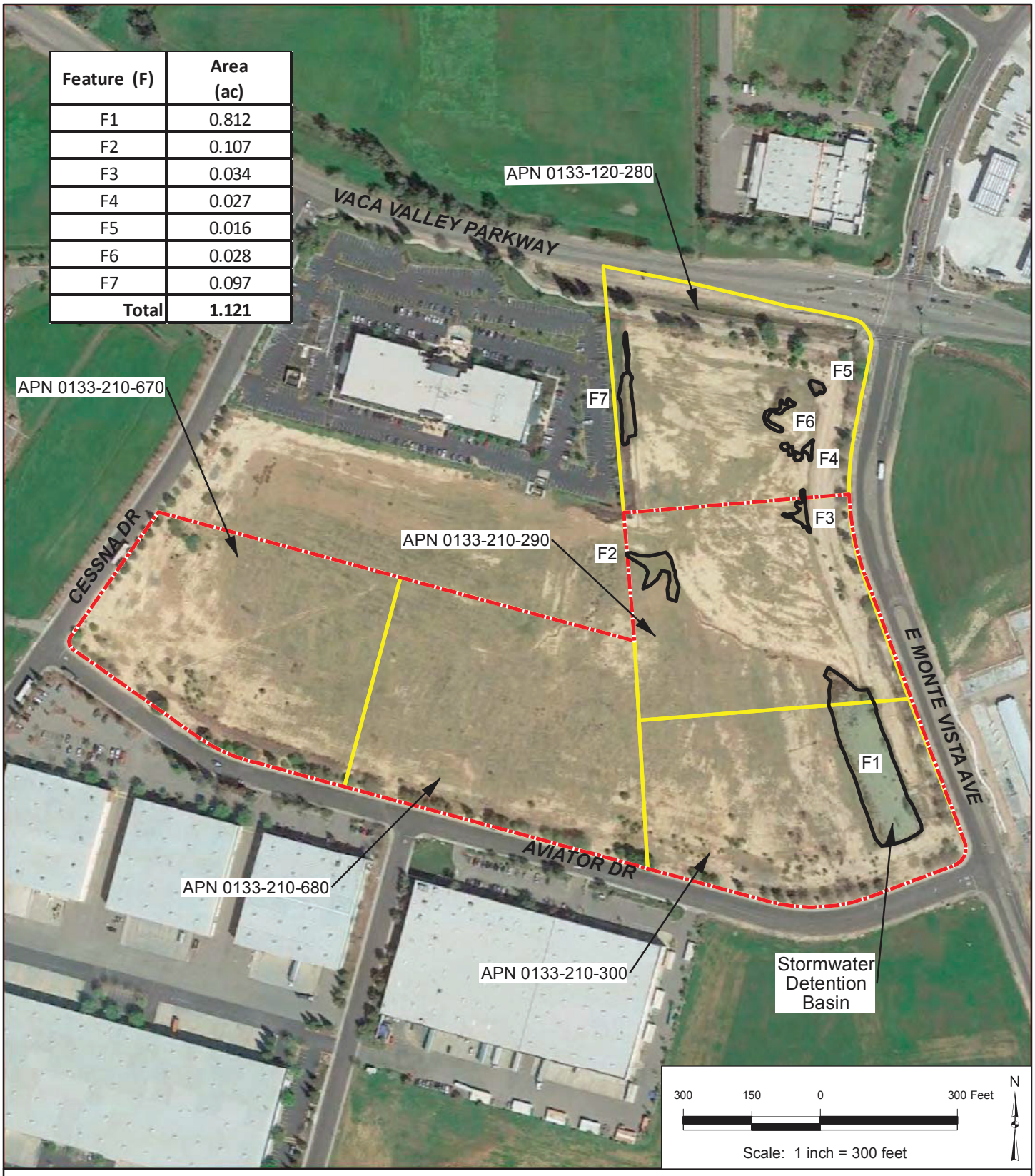
Scale: 1 inch = 2,000 feet

N

SYCAMORE Environmental Consultants, Inc.

USGS 7.5' Quadrangle Topo Basemap:
Allendale, CA (Photoinspected 1978)
CASIL California USGS Digital Raster Graphics (DRG),
7.5 Minute (C) Series, Albers Nad83 Mosaics (MrSID)
o_nw0301.sid

17114CessnaAviation_ProjectLocationMap.mxd



Feature (F)	Area (ac)
F1	0.812
F2	0.107
F3	0.034
F4	0.027
F5	0.016
F6	0.028
F7	0.097
Total	**1.121**

Cessna Project
City of Vacaville, CA
12 June 2018

Project Site
Parcel Boundary
Feature (F)

SYCAMORE Environmental Consultants, Inc.

Aerial Photograph:
16 March 2016
Google Earth Imagery

Aerial Photograph

17114CessnaAviation_AerialMap_v2.mxd

ATTACHMENT C.

Photographs

Photo 1. View looking north along the edge of Feature 1. A portion of the concrete spillway can be seen in the lower right (28 February 2018; CCH).

Photo 2. View looking south along the edge of Feature 1. The concrete spillway can be seen on the left (17 January 2018; CCH).

Photo 3. View looking south at Feature 2. Feature 2 does not provide potential habitat for listed branchiopods (31 January 2018; CCH).

Photo 4. View looking west at Feature 3 (31 January 2018; CCH).

Photo 5. View looking northwest of Feature 4 (31 January 2018; CCH).

Photo 6. View looking north of Feature 5 (28 March 2018; CCH).

Photo 7. View looking northeast of Feature 6 when full (31 January 2018; CCH).

Photo 8. View looking north of Feature 7 (14 March 2018; CCH).

ATTACHMENT D.

Survey Results

Feature 1

Date	Feature	Surveyors	Begin Time	Air Temp. (°C)	Water Temp. (°C)	Est. Average Water Depth (cm)	Max. Depth (cm)	Present Surface Area (m x m)	Est. Max. Surface Area (m x m)	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae	Platyhelminths	Habitat Condition	Notes
18Nov17	F 1	CCH	2:50PM				0		114x23									Constructed detention basin, Disturbed, Tire Tracks, Trash, Ungrazed	
2Dec17	F 1	CCH	2:50PM				0												
23Dec17	F 1	CCH	3:30PM				0												
6Jan18	F 1	CCH	3:00PM				0												
17Jan18	F 1	CCH	3:00PM	13	11	30	49	102x20						10^0					
31Jan18	F 1	CCH	9:45AM	13	11	25	53	114x23		10^3	10^1	10^1	10^1				10^2		
14Feb18	F 1	CCH/NPD	8:30AM	13	9	25	42	91x18		10^3		10^2		10^1			10^2		
28Feb18	F 1	CCH	11:00AM	14	12	15	40	80x16		10^3	10^1	10^1		10^2					
14Mar18	F 1	CCH	9:45AM	12	13	25	55	114x23		10^4	10^2	10^2		10^1					
28Mar18	F 1	CCH	1:30PM	26	21	20	40	102x21		10^3	10^3	10^2		10^1					
11Apr18	F 1	CCH/NPD	9:45AM	17	16	25	52	114x23		10^3	10^2	10^3	10^1	10^3					Tadpoles
25Apr18	F 1	CCH	10:40AM	24	19	20	41	80x16		10^2				10^2					Tadpoles

Notes:

10^0	<10 observed	CCH	Chuck Hughes
10^1	10-100 observed	NPD	Nicole Desideri
10^2	100-1000 observed		
10^3	1000-10,000 observed		
10^4	>10,000 observed		

Feature 2

Date	Feature	Surveyors	Begin Time	Air Temp. (°C)	Water Temp. (°C)	Est. Average Water Depth (cm)	Max. Depth (cm)	Present Surface Area (m x m)	Est. Max. Surface Area (m x m)	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae	Platyhelminths	Habitat Condition	Notes
18Nov17	F 2	CCH	2:50PM				0		34x23									Puddle formed from rough grading, Disturbed, Tire Tracks, Trash, Ungrazed	
2Dec17	F 2	CCH	2:50PM				0												
23Dec17	F 2	CCH	3:30PM				0												
6Jan18	F 2	CCH	3:00PM				0												
17Jan18	F 2	CCH	3:00PM				0												
31Jan18	F 2	CCH	9:45AM	13	--		<3												Visual inspection, only platyhelminthes present. Too shallow to measure water temp.
14Feb18	F 2	CCH/NPD	8:30AM				0												
28Feb18	F 2	CCH	11:00AM				0												
14Mar18	F 2	CCH	9:45AM	12	13	4	5	2x5											Pool reinundated in last 2 days
28Mar18	F 2	CCH	1:30PM	26			0												
11Apr18	F 2	CCH/NPD	9:45AM				0												
25Apr18	F 2	CCH	10:40AM				0												

Feature 3

Date	Feature	Surveyors	Begin Time	Air Temp. (°C)	Water Temp. (°C)	Est. Average Water Depth (cm)	Max. Depth (cm)	Present Surface Area (m x m)	Est. Max. Surface Area (m x m)	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae	Platyhelminths	Habitat Condition	Notes
18Nov17	F 3	CCH	2:50PM				0		11x23									Puddle formed from rough grading, Disturbed, Tire Tracks, Trash, Ungrazed	
2Dec17	F 3	CCH	2:50PM				0												
23Dec17	F 3	CCH	3:30PM				0												
6Jan18	F 3	CCH	3:00PM				0												
17Jan18	F 3	CCH	3:00PM				0												
31Jan18	F 3	CCH	9:45AM	13	11	4	10	3x3		10^1	10^1								
14Feb18	F 3	CCH/NPD	8:30AM				0												
28Feb18	F 3	CCH	11:00AM				0												
14Mar18	F 3	CCH	9:45AM	12	13	5	11	5x5											Pool reinundated in last 2 days
28Mar18	F 3	CCH	1:30PM	26	21	<3	7	3x2			10^2								
11Apr18	F 3	CCH/NPD	9:45AM	17	15	3	9	2x5				10^2					10^1		
25Apr18	F 3	CCH	10:40AM				0												

Feature 4

Date	Feature	Surveyors	Begin Time	Air Temp. (°C)	Water Temp. (°C)	Est. Average Water Depth (cm)	Max. Depth (cm)	Present Surface Area (m x m)	Est. Max. Surface Area (m x m)	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae	Platyhelminths	Habitat Conditions	Notes
18Nov17	F 4	CCH	2:50PM	18	--	2	4	1x1	11x23									Puddle formed from rough grading, Disturbed, Tire Tracks, Trash, Ungrazed	Too shallow to measure water temp
2Dec17	F 4	CCH	2:50PM				0												
23Dec17	F 4	CCH	3:30PM				0												
6Jan18	F 4	CCH	3:00PM				0												
17Jan18	F 4	CCH	3:00PM	13	11	6	15	9x18						10^0					
31Jan18	F 4	CCH	9:45AM	13	11	8	16	6x4		10^1	10^1						10^1		
14Feb18	F 4	CCH/NPD	8:30AM				0												
28Feb18	F 4	CCH	11:00AM				0												
14Mar18	F 4	CCH	9:45AM	12	13	12	22	8x8											Pool reinundated in last 2 days
28Mar18	F 4	CCH	1:30PM	26	21	15	23	9x18			10^2								
11Apr18	F 4	CCH/NPD	9:45AM	17	14	10	17	6x12			10^2	10^3	10^1	10^1					Tadpoles
25Apr18	F 4	CCH	10:40AM	24	Too Shallow	3	5	1x2		10^1	10^2			10^1					Tadpoles

Feature 5

Date	Feature	Surveyors	Begin Time	Air Temp. (°C)	Water Temp. (°C)	Est. Average Water Depth (cm)	Max. Depth (cm)	Present Surface Area (m x m)	Est. Max. Surface Area (m x m)	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae	Platyhelminths	Habitat Conditions	Notes
18Nov17	F 5	CCH	2:50PM				0		11x11									Puddle formed from rough grading, Disturbed, Tire Tracks, Trash, Ungrazed	
2Dec17	F 5	CCH	2:50PM				0												
23Dec17	F 5	CCH	3:30PM				0												
6Jan18	F 5	CCH	3:00PM				0												
17Jan18	F 5	CCH	3:00PM	13	11	6	15	9x9											
31Jan18	F 5	CCH	9:45AM	13	11	2	4	1x2		10^1	10^1								
14Feb18	F 5	CCH/NPD	8:30AM				0												
28Feb18	F 5	CCH	11:00AM				0												
14Mar18	F 5	CCH	9:45AM	12	13	7	15	6x6											Pool reinundated in last 2 days
28Mar18	F 5	CCH	1:30PM	26	21	5	11	8x8			10^2								
11Apr18	F 5	CCH/NPD	9:45AM	17	14	6	13	8x8											Insect larvae
25Apr18	F 5	CCH	10:40AM				0												

Feature 6

Date	Feature	Surveyors	Begin Time	Air Temp. (°C)	Water Temp. (°C)	Est. Average Water Depth (cm)	Max. Depth (cm)	Present Surface Area (m x m)	Est. Max. Surface Area (m x m)	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae	Platyhelminths	Habitat Conditions	Notes
18Nov17	F 6	CCH	2:50PM				0		11x23									Puddle formed from rough grading, Disturbed, Tire Tracks, Trash, Ungrazed	
2Dec17	F 6	CCH	2:50PM				0												
23Dec17	F 6	CCH	3:30PM				0												
6Jan18	F 6	CCH	3:00PM				0												
17Jan18	F 6	CCH	3:00PM	13	11	6	16	8x16											
31Jan18	F 6	CCH	9:45AM	13	12	4	15	6x8			10^{1}								
14Feb18	F 6	CCH/NPD	8:30AM				0												
28Feb18	F 6	CCH	11:00AM				0												
14Mar18	F 6	CCH	9:45AM	12	13	7	15	7x7											Pool reinundated in last 2 days
28Mar18	F 6	CCH	1:30PM	26	21	8	15	9x18			10^{2}								
11Apr18	F 6	CCH/NPD	9:45AM	17	15	8	25	9x18				10^{3}		10^{1}					
25Apr18	F 6	CCH	10:40AM				0												

Feature 7

Date	Feature	Surveyors	Begin Time	Air Temp. (°C)	Water Temp. (°C)	Est. Average Water Depth (cm)	Max. Depth (cm)	Present Surface Area (m x m)	Est. Max. Surface Area (m x m)	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae	Platyhelminths	Habitat Conditions	Notes
18Nov17	F 7	CCH	2:50PM				0		11x68									Puddle formed from rough grading, Disturbed, Tire Tracks, Trash, Ungrazed	
2Dec17	F 7	CCH	2:50PM				0												
23Dec17	F 7	CCH	3:30PM				0												
6Jan18	F 7	CCH	3:00PM				0												
17Jan18	F 7	CCH	3:00PM				0												
31Jan18	F 7	CCH	9:45AM	13	12	4	10	5x3											Only inundation is in tire ruts
14Feb18	F 7	CCH/NPD	8:30AM				0												
28Feb18	F 7	CCH	11:00AM				0												
14Mar18	F 7	CCH	9:45AM	12	13	3	9	5x5											Pool reinundated in last 2 days
28Mar18	F 7	CCH	1:30PM	26	21	4	9	2x7			10^2								Just tire ruts left inundated
11Apr18	F 7	CCH/NPD	9:45AM	17	16	4	10	1x7									10^0		
25Apr18	F 7	CCH	10:40AM				0												

ATTACHMENT E.

Dry Season Results Letter

The University of Kansas

Kansas Biological Survey

17 November 2017

Chuck Hughes, M.S., Senior Botanist/Biologist
chuck.hughes@sycamoreenv.com
Sycamore Environmental Consultants, Inc.
6355 Riverside Blvd., Suite C
Sacramento, CA 95831

SUBJECT: Dry Season Special Status Crustacean Soil Samples Analyses for the Proposed Cessna Aviation Project in the City of Vacaville, Solano County, CA.

Dear Chuck:

Sycamore Environmental Consultants, Inc. conducted a dry season survey of potential special status shrimp habitats at the proposed Cessna Aviation Project site at (APNs 0133-210-670, -680, -300, and -290) located at the northeast corner of Aviator Drive and Cessna Drive, City of Vacaville, Solano County, California. Soil samples were collected from 7 previously identified habitats that had previously been determined as potential special status shrimp species habitat. No special status vernal pool crustacean eggs were found in any of the soil samples provided by Sycamore Environmental Consultants, Inc.

It is my understanding that Sycamore Environmental Consultants, Inc. will submit this report and all other pertinent materials and information to the US Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (DFW), as required by the USFWS guidelines for a protocol level survey.

Definitions

For the purpose of this report, special status shrimp are defined to include shrimp species listed as threatened or endangered under the federal Endangered Species Act (ESA) (50 CFR 17.11 for listed animals and various Federal Register notices for proposed species). Three special status fairy shrimp species (*Branchinecta lynchi*, *Branchinecta conservatio*, and *Lepidurus packardi*) have the potential to occur at the proposed project site. In addition, four non listed fairy shrimp species (*Linderiella occidentalis*, *Branchinecta lindahli*, *B. mesovallensis*, and *B. mackini*) are known from the proposed project vicinity.

Methods

Sycamore Environmental Consultants, Inc. staff collected soil samples from seven potential special status shrimp habitats at the proposed project site. Each soil sample was placed in two paper grocery bags, labelled with the locality number, and taken to the Kansas Biological Survey laboratory for analysis. All potential habitats sampled were identified according to the numbers assigned to them by Sycamore Environmental Consultants, Inc.

Laboratory Analysis

Soil samples were prepared for examination in the laboratory by dissolving the clumps of soil in water and sieving the material through 300- and 150- μm pore size screens. The small size of these screens ensures that the eggs from the shrimp species will be retained. The portion of each sample retained in the screens was dissolved in a brine solution to separate the organic material from the inorganic material. The organic fraction was then examined under a microscope.

Results

No fairy shrimp or tadpole shrimp eggs were recovered from the soil samples, although cladoceran ephippia, ostracod carapaces, and flatworm cocoons were found in samples 1, 4, and 6. These analyses are insufficient by themselves to determine that special status shrimp are absent from the other habitat on this site. The results of this survey must be combined with a protocol wet season survey, and concurrence must be sought from the USFWS before any additional determinations can be made.

If you have any questions please call me.

Sincerely,

D. Christopher Rogers
785.864.1714
Crustacean Taxonomist and Ecologist
Kansas Biological Survey
Kansas University, Higuchi Hall
2101 Constant Avenue, Lawrence, KS 66047-3759 USA

ATTACHMENT F.

Field Data Sheets

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna | **County:** Solano | **Quad:** Allendale | **Township:** T6N | **Range:** R1W | **Section:** Unsectioned

SURVEYOR / Permit Number: Chuck Hughes TE-799564-4 Rancho Los Putos

Date: 18-Nov-17 | **Time:** 2:50 p.m. | **Weather Conditions:** Mostly sunny, cool, light breeze

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1					0		114 x 23												
2					0		34 x 23												
																			All features on-site like this
3					0		11 x 23												
																		D, TT, T, UG	Nothing present. Water likely only present for 2 days.
4		64F	too shadow for measurement	2	4	1x1	11 x 23												
5					0		11 x 11												
6					0		11 x 23												
7					0		11 x 68												

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Lindeniella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna | **County:** Solano | **Quad:** | **Township:** | **Range:** | **Section:**

SURVEYOR / Permit Number: Chuck Hughes

Date: 2-Dec-17 | Time: 2:50 pm | Weather Conditions: Mostly cloudy, slight breeze, cool

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1				0															
2				0															
3				0															
4				0															
5				0															
6				0															
7				0															

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna | **County:** Solano | **Quad:** | **Township:** | **Range:** | **Section:**

SURVEYOR / Permit Number: Chuck Hughes

Date: 23-Dec-17 | Time: 3:30 pm | Weather Conditions: Mostly cloudy, calm, cold

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1					0														
2					0														
3					0														
4					0														
5					0														
6					0														
7					0														

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Lindeniella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna / Aviation	County: Solano	Quad:	Township:	Range:	Section:

SURVEYOR / Permit Number: Chuck Hughes

Date: 6-Jan-18 | Time: 3 pm | Weather Conditions: Partly cloudy, calm, cool

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1					0														
2					0														
3					0														
4					0														
5					0														
6					0														
7					0														

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna | **County:** Solano | **Quad:** | **Township:** | **Range:** | **Section:**

SURVEYOR / Permit Number: Chuck Hughes

Date: 17-Jan-18 | Time: 3:00-4:30 | Weather Conditions: Cloudy, calm, cool

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1		55	51	30	49	102 x 20								10°					
2					0														
3					0														
4		55	51	6	15	9 x 8								10°					
5		55	51	4	9	5 x 5													
6		55	51	6	16	8 x 16													
7					0														

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna | **County:** Solano | **Quad:** | **Township:** | **Range:** | **Section:**

SURVEYOR / Permit Number: Chuck Hughes

Date: 31-Jan-18 | Time: 9:45 → 12 | Weather Conditions: Sunny, calm, cool

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1		55	51	25	53	14x23				10^3	10^1	10^1		10^1			10^2		
2		55	too shallow		<3														visual inspection, only platyhelminths present.
3		55	52	4	10	3x3				10^1	10^1								
4		55	52	8	16	6x4				10^1	10^1						10^1		
5		55	52	2	4	1x2				10^1	10^1								
6		55	54	4	15	6x8					10^1								
7		55	53	4	10	5x3													only inundation is in tire ruts

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Lindeniella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Lessna	County: Solano	Quad:	Township:	Range:	Section:

SURVEYOR / Permit Number: Chuck Hughes + Nicole Desideri

Date: 14-Feb-18 | Time: 8:30 → 10am | Weather Conditions: Cool, Calm, partly cloudy

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1		54°F	48°F	25	42	91 x 18				10^3	0	10^2		10^1			10^2		
2					0														
3					0														
4					0														
5					0														
6					0														
7					0														

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna	County: Solano	Quad:	Township:	Range:	Section:

SURVEYOR / Permit Number: Chuck Hughes

Date: 28-Feb-18 | Time: 11:00 am | Weather Conditions: Partly Cloudy, Breezy, Cool

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1		58°F	54°F	15	40	80 x 16				10^3	10^1	10^1		10^2					
2					0														
3					0														
4					0														
5					0														
6					0														
7					0														

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Lessna	County: Solano	Quad:	Township:	Range:	Section:

SURVEYOR / Permit Number: Chuck Hughes

Date: 14-Mar-18 | Time: 9:45 | Weather Conditions: Cool, Cloudy, Scattered Showers

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1		54	56^F	25	55	114 x 23				10^4	10^2	10^2		10^1					
2		54	56	4	5	2 x 5													All pools other than 1 reinundated in last 2 days
3		54	55	5	11	5 x 5													
4		54	55^F	12	22	8 x 8													
5		54	55	7	15	6 x 6													
6		54	55	7	15	7 x 7													
7		54	55	3	9	5 x 5													

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Lessna	County: Solano	Quad:	Township:	Range:	Section:

SURVEYOR / Permit Number: Chuck Hughes

Date: 28-Mar-18 | Time: 1:30 | Weather Conditions: Sunny, warm, windy

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1		78	70F	20	40	102x21				10^3	10^3	10^2		10^1					
2		78			0														
3		78	70	<3	7	3x2					10^2								
4		78	70	15	23	9x18					10^2								
5		78	70	5	11	9x[illegible]					10^2								
6		78	70	8	15	9x18					10^2								
7		78	70	4	9	2x7					10^2								Just tire ruts left inundated

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna	County: Solano	Quad: Allendale	Township:	Range:	Section:

SURVEYOR / Permit Number: Chuck Hughes, Nicole Desideri

Date: 11/Apr/18 | Time: 9:45 a.m. | Weather Conditions: Cloudy, cool, breezy

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1		62	60°	25	52	114 x 23				10^3	10^2	10^3	10^1	10^5					tadpoles - pseudacris sierra
2					0														
3		62	54	3	9	2x5						10^2					10^6		
4		62	58	10	17	6x12					10^2	10^3	10^1	10^1					Tadpoles - pseudacris
5		62	58	6	13	8x8													Insect larvae
6		62	59	8	25	9x18						10^3		10^1					
7		62	60	4	10	1x7											10^0		

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Cessna	County: Solano	Quad:	Township:	Range:	Section:

SURVEYOR / Permit Number: Chuck Hughes

Date: 25/Apr/18 | Time: 10:40 | Weather Conditions: Clear, Calm, Warm

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1		76F	66F	~~8~~ 20	~~16~~ 41	5000				10^2				10^2					Many tadpoles
2					0														
3					0														
4		76F	too shallow	~~1~~ 3	~~2~~ 5	1000				10^1	10^2			10^1					Many tadpoles
5					0														
6					0														
7					0														

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix C

Cultural Resources Inventory Report

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CULTURAL RESOURCES TECHNICAL MEMORANDUM

Date: February 5, 2020
To: Buzz Oates Construction, Inc.
From: Solano Archaeological Services
Subject: Cultural Resources Study – Cessna and Aviator Project, Solano County, California

INTRODUCTION

This technical memorandum summarizes the background research, Native American outreach, pedestrian survey, and findings for the Cessna and Aviator Project (Project). The Project is subject to California Environmental Quality Act (CEQA) requirements, and Solano Archaeological Services (SAS) has prepared this technical memorandum to support those needs.

PROJECT LOCATION

The Project is located at the in the City of Vacaville, Solano County, California. The Project area consists of five parcels (APN 0133-210-670, -680, -300, -290, and -710), located just north of Aviator Drive and between Cessna Drive and East Monte Vista Avenue. The project area is situated on the *Allendale, California* topographic 7.5-minute quadrangle, Township 6 North, Range 1 West and 1 East. The Project lies on unsectioned land of the *Los Putos* land grant.

PROJECT DESCRIPTION

Buzz Oates Construction, Inc. proposes to construct a series of large warehouses and associated parking spaces on approximately 31.83 acres to support local airport infrastructure.

REGULATORY SETTING

CEQA requires that public agencies having authority to finance or approve public or private projects assess the effects of the projects on cultural resources. Cultural resources include buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. CEQA states that if a proposed project would result in an effect that may cause a substantial adverse change in the significance of a significant cultural resource (termed a "historical resource"), alternative plans or mitigation measures must be considered. Because only significant cultural resources need to be addressed, the significance of cultural resources must be determined before mitigation measures are developed.

CEQA §5024.1 (Public Resources Code §5024.1) and §15064.5 of the State CEQA Guidelines (14 California Code of Regulations [CCR] §15064.5) define a historical resource as "a resource listed or eligible for listing on the California Register of Historical Resources." A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2) Is associated with the lives of persons important to our past;
3) Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values; or
4) Has yielded, or may be likely to yield, information important to prehistory or history.

In addition, CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, and "unique archaeological resources." An archaeological resource is considered "unique" if it:

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory;
- Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods (Public Resources Code §21083.2).

According to the CEQA Guidelines, a project with an effect that may cause a substantial adverse change in the significance of a historical resource or a unique archaeological resource is a project that may have a significant effect on the environment (14 CCR §15064.5[b]). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

The CEQA Guidelines (14 CCR §15064.5[e]) also require that excavation activities be stopped whenever human remains are uncovered, and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of a Native American, the Native American Heritage Commission must be contacted within 24 hours, and the provisions for treating or disposing of the remains and any associated grave goods as described in CCR §15064.5 must be followed.

NATURAL AND CULTURAL SETTING

Existing Environment

The Project area is on relatively flat land with an elevation of approximately 105 ft. above mean sea level. The Project area consists of open field with seasonal streams supporting annual grasses shrubs, and bushes. The site is located along the eastern geographical edge of the interior coast range and in a valley floor ecological zone. The English Hills lie immediately to the west, while the watershed consists of a series of unnamed drainages in the vicinity and Gibson Canyon Creek to the north.

The landscape and natural resources surrounding the site are rich and diverse. These conditions are also reflected in the larger Solano region through numerous geological, ecological, and biological resource zones. Thus, the climate and natural environment would have provided an excellent setting for prehistoric settlement and subsistence.

The surrounding valley heading away from developed areas of Vacaville is now dominated by agricultural crops, non-native grasses, and many other historically introduced exotic plant species, but geographical islands of indigenous plant communities indicate what the vegetational mosaic looked like

prior to European contact and settlement. The natural canopy and scrub vegetation west and northwest of the site includes variations of Oak Woodland, Oak Savanna, Northern Mixed Chaparral, Northern Coastal Scrub, Valley Floor Grassland, Vernal Pools, Fresh Water Marshes, Riparian Woodland, and Riparian Scrub plant communities, the association, occurrence, and frequency of which are largely dependent on elevation, slope, aspect, soil type, and precipitation (for plant species, see Bakker 1984; Balls 1962; Barbour and Major 1977; Barbour et al. 1993; Clarke 1977; Dallman 1998; Eliot 1938; Hickman 1993; Holland 1986; Jepson 1975; Johnston 1994; Pavlik et al. 1991; Wiltens 1999). These diverse plant communities coupled with water resources provided by seasonal and year-round creeks, sloughs, ponds, marshes, bays, and vernal pools provided habitat for a broad spectrum of animal species.

Although the Putah Creek South Canal runs 320 meters west of the project area, Gibson Canyon Creek is the major indigenous drainage in the immediate vicinity, running approximately 2.5 kilometers to the north. Several unnamed seasonal creeks were also present historically in the project area. In addition to creating a riparian habitat for common species of birds, the creek and other surrounding water sources would have also provided important habitat for fish species on either a seasonal or a year-round basis (for bird and fish species, see: Cogswell 1977; Eschmeyer and Herald 1983; Lightfoot and Parrish 2009; Lukas 2000; McGinnis 1984; Peeters and Peeters 2005; Peterson 1990; Uvardy 1986).

This riparian habitat would have also been attractive to other common terrestrial and aquatic habitat species (see: Brown 1997; Brown 1999; Lightfoot and Parrish 2009; Stebbins 1966; Stienstra 2000). Terrestrial mammals would also have provided dietary protein and fat as well as necessary raw materials for the manufacture of clothing and tools (for other faunal species, see: Anderson 2005; Bakker 1984; Brown 1999; Lightfoot and Parrish 2009; Stienstra 2000; Storer and Tevis 1996; Whitaker 1988).

The prehistoric inhabitants of the region would also have had access to the coastal marsh and bay environments south of the project area at Grizzly Bay, Suisun Marsh, Suisun Bay, Honker Bay, and San Pablo Bay. These fresh water and brackish marsh environments are host to literally hundreds of plant and animal species (e.g. migratory waterfowl, fish, and marine mammals) that could not be otherwise obtained from the riparian habitat closest to the site, but would have provided additional resources for shelter, subsistence, and personal adornment nearby and fully within the ethnographic territory of the Patwin (e.g. Anderson 2005; Eschmeyer and Herald 1983; Holland 1986; Lightfoot and Parrish 2009).

Pre-Contact Setting

Due to the plentiful resources and temperate climate described above, the Central Valley was well populated in pre-contact times and served as the location for some of the more substantial village sites known in California. As a result, the area was an early focus for archaeological investigations. Beardsley (1948) and Lillard, Heizer and Fenenga (1939) and others conducted numerous studies that formed the core of our early understanding of upper Central Valley archaeology. Little has been found archaeologically that dates to the Paleo-Indian or the Lower Archaic time periods (10,000-3,000 B.C.) however, archaeologists have recovered a great deal of data from sites occupied beginning in the Middle Archaic period (3,000-1,000 BC). At this time, broad regional patterns of foraging subsistence strategies gave way to more intensive procurement practices, which have been subdivided into three archaeological time periods/cultural patterns. These assemblages are discussed in detail in Moratto (1984) and summarized here.

The <u>Windmiller Pattern (3,000-1,000 BC)</u> of archaeological assemblages included an increased emphasis on acorn use as well as a continuation of hunting and fishing activities. Ground and polished charmstones, twined basketry, baked-clay artifacts and worked shell and bone were hallmarks of Windmiller culture. Widely ranging trade patterns brought goods in from the Coast Ranges and trans-Sierran sources as well as closer trading partners. Distinctive burial practices identified with the

Windmiller Pattern also appeared in the Sierra foothills, indicating possible seasonal migration into the Sierra.

The Berkeley Pattern (1,000 BC to AD 500) represented a greater reliance on acorns as a food source than was seen previously. Distinctive stone and shell artifacts distinguished it from earlier or later cultural expressions. The Berkeley Pattern appears to have developed in the Bay Area and was spread through the migration of Plains Miwok Indians.

The Augustine Pattern (AD 500 to Historic Era) may have been stimulated by the southern migration of Wintun people from north of the Sacramento Valley. Their culture was marked by increasing populations resulting from more intensive food procurement strategies, as well as a marked change in burial practices, increased trade activities and a well-defined ceramic technology.

Ethnographic Setting

The project area is situated in the ethnographic territory of the Patwin. The Patwin, which means "people" in their own language, are also known as the *Copeh* or *Southern Wintun*. At the time of initial contact between European explorers and Native Americans, they existed mainly in what are now known as Solano, Yolo, and Colusa counties, and shared territorial boundaries with many different Native American groups. The Nomlaki to the north referred to the Patwin as *noymok*, or "south people", while the Yuki to the northwest referred to them as the "Little Stony Creek Patwin" who had contact with *Ku'mnom*, or "salt people" (Johnson 1978: 358-359).

The Patwin territory took an approximate geographic expanse of 90 miles north-south by 40 miles east-west. They were known to have existed on the east side of the Coastal Range, along the foothills east of Clear Lake. Suisun Bay acted as their southern boundary, providing a Delta tule marsh habitat full of biota to exploit. From Suisun Bay to the confluence of Feather River and the lower Sacramento River, the Patwin eastern boundary existed near the west banks of the Sacramento River. From this point to several miles north of the modern-day City of Princeton, the Patwin existed on the banks of both sides of the Sacramento River, but west of the Sutter Buttes (Johnson 1978:350-351). North of Princeton early peoples were differentiated culturally and linguistically as being Nomlaki.

The Patwin belong to the Penutian linguistic stock, which has been divided into five languages. The Wintun language group, residing on the west side of the Sacramento Valley, is further divided into three distinct dialects, namely the Wintu to the north, the Central Wintun (Nomlaki), and the Southern Wintun (Patwin) (Heizer and Elsasser 1980:14). Due to the three groups sharing linguistic and cultural traits, they were all originally considered to be Wintun. As ethnographic research continued, however, early ethnologist Stephen Powers in 1877 discovered during fieldwork that the Nomlaki and the Patwin were culturally distinguishable (Johnson 1978:350). As their own cultural group, the Patwin were further divided into the Hill Patwin and the River Patwin. The Hill Patwin settled in areas along the Coastal Range foothills to the west. The River Patwin settled along the Sacramento River and various valley creek drainages (and Suisun Bay). Owing much to the fishing grounds, the highest populated areas were in villages around the Sacramento River and local stream courses. According to some of the early works by Alfred Kroeber in 1932, the total population estimate for the Patwin, Nomlaki, and Wintu before historic contact was around 12,500 (Johnson 1978:352).

Historic Setting

After Mexico seceded from Spain in 1822, land in California was divided into many large land grants, or *ranchos*. Particularly in the Central Valley, *ranchos* were established to help create stability during a time of upheaval created by European contact. In 1842 Juan Felipe Peña and Manuel Cabeza Vaca settled in

the area surrounding much of what is now known as Solano County, and by 1843 they received their first land grant for the *Rancho Rio De Los Putos* ("River of the Putahs, or Patwin Indians"). The land grant originally consisted of approximately 17,754 acres (Shumway 2007; Beck and Haase 1978), but in 1858 the U.S. Government patented a much larger region of 44,384 acres for the *Rancho Los Putos*. As mentioned previously, the Project is situated in the *Rancho Los Putos* land grant.

After the explosion of the Gold Rush and the consequent exploitation of the California Delta, settlers from around the world came to establish farms in and around California's extensive drainage system. Some turned to agriculture after bad luck with the mines, others pursued it as a lucrative endeavor that others had overlooked. In 1848 two American settlers by the name of Albert Lyon and John Patton made the first sale of land from the *Rancho Rio De Los Putos*, and in the following year Vaca sold nine square acres of his rancho to William DcDaniel. In 1851 McDaniel, as part of his agreement with Vaca, established *Villa de Vacaville* and was the second town to be surveyed in Solano County. By 1892 Vacaville became incorporated as an official city that became a central community in Solano County for settlers looking to establish farm plots and orchards. *(www.ci.vacaville.ca.us)*

NATIVE AMERICAN OUTREACH

The Public Resources Code Sections 21080.1, 21080.3.1, and 21080.3.2 (AB 52) requires public agencies to consult with the appropriate California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of mitigating impacts to cultural resources. The outreach documented below does not satisfy AB 52 consultation requirements but is intended for information gathering and an introduction of the Project to the Native American community. It is the intention of AB 52 for the Project's lead agency to comply with standard regulatory protocol.

On January 24, 2020, SAS emailed a letter and a map depicting the project area and surrounding vicinity to the NAHC. The letter requested a Sacred Lands File (SLF) search of the project area, and a list of Native American consultants who should be contacted about the proposed Project. On January 27, 2020, Ms. Sarah Fonseca, Associate Governmental Program Analyst for the NAHC, replied in an emailed letter that the SLF search was completed with negative results. Ms. Fonseca also supplied a list of local Native Americans to inform about the Project and request information on unrecorded cultural resources that may exist in the project area. On January 30, 2020, SAS mailed letters to the following Native Americans identified by the NAHC:

- Charlie Wright, Chairperson (Cortina Rancheria – Kletsel Dehe Band of Wintun Indians)
- Gene Whitehouse, Chairperson (United Auburn Indian Community of the Auburn Rancheria)
- Anthony Roberts, Chairperson (Yocha Dehe Wintun Nation)

To date, no responses have been received.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM (CHRIS) RECORDS SEARCH

On February 4, 2020, SAS conducted a records search (IC No. 19-1308) at the Northwest Information Center (NWIC), of the California Historical Resources Information System at Sonoma State University. The NWIC archives were reviewed for previously known or recorded cultural resources, studies, and isolates within the project area and a half-mile radius. The NWIC records search included, but was not necessarily restricted to, a review of the following sources:

- The *National Register of Historic Places* (Historic Properties Directory, California Office of Historic Preservation 2002);

- The *California Register of Historic Places* (Historic Properties Directory, California Office of Historic Preservation 2002);
- The *California Historical Landmarks* (California Office of Historic Preservation 1996);
- The *California Points of Historical Interest* (California Office of Historic Preservation 1992); and
- The *California Inventory of Historic Resources* (California Department of Parks and Recreation 1976).

Records search results were negative for previously documented cultural resources within the Project area. One historic-era cultural resource was previously documented within a half-mile radius of the Project area. This resource is summarized in Table 1 below.

Table 1. Previously Recorded Resources Within a Half-Mile Radius of the Project Area

Site No. (P-48-00-)	Recorder	Site Description	Date Originally Recorded
1025	Crull	Vaca Valley Railroad Route	2014

Five cultural resources studies have been conducted within the project area, covering 100% of the Project area. These studies are summarized in Table 2 below.

Table 2. Previously Conducted Studies within the Project Area

Report #	Author	Title	Date
05156	Treganza et al.	Archeological Survey and Excavation Along the Tehama-Colusa Canal	1965
05162	Holman	Archaeological reconnaissance of the 352-acre parcel on the northern edge of the City of Vacaville	1997
34108	McKale et al.	Cultural and Paleontological Resources Study for the Nut Tree Airport Project	2007
45222	Anderson	Cultural Resources Inventory and Evaluation Report of the Nut Tree Airport Runway Improvement Project	2014
51227	Coleman	Cultural Resources Inventory Report Cessna Aviation Project City of Vacaville, Solano County, California	2018

In addition, there have been sixteen cultural resources studies conducted within a half-mile radius of the project area. These studies are summarized in Table 3 below.

Table 3. Previously Conducted Studies within a Half-Mile Radius of the Project Area

Report #	Author	Title	Date
00106	Fredrickson	Archaeological Reconnaissance of the Nut Tree Airport	1974
07675	McGowan Seldner	A Preliminary Archeological Study of the Northeast Sector, Vacaville, Solano County, California	1985
9124	Holson and Hager	A Cultural Resources Study for the Vaca Dixon-Moraga 230 kV Transmission Line Reconductoring Project, Contra Costa, Napa, and Solano Counties, California	1987
15510	Derr	A Cultural Resources Study for North Village Development Project EIR, Solano County, California	1993
19521	Corbett and Kostura	Historic Property Survey Report, 10-SOL-I-80 KP47.48-49.08 EA 325400, Improvements to I-80	1996
21305	Ilic and Chavez	Archaeological Survey Report, 04-SOL-505 PM 1.6 EA 0S9601, Repair of Three Slipouts Adjacent to the Shoulder of Northbound Route 80	1998
21719	Holman	Archaeological Field Inspection of the West Village Project, Vacaville, Solano County, California (letter report)	1998
25258	Holman	Archaeological Field Inspection of the Forecast Homes West Village Project Area	2000
32886	Jones & Stokes	Cultural Resources Inventory of the Alta-ACSM Parcels, City of Vacaville, Solano County, California	2007
35939	Losee	Cultural Resources Investigation for Verizon site # 181718 “North Vacaville”, Vaca Valley Parkway, Vacaville, Solano County, California 95688	2009
37587	Analytical Environmental Services	Historic Properties Study, Vaca Valley Parkway/I-505 Interchange Area Projects	2010
46139	Coleman	Cultural Resources Survey Report for the Superior Self Storage Project	2015
48917	Coleman	Cultural Resources Survey Report for the De La Torre Project	2016
48930	Crull	The History and Archaeology of the Vaca Valley Railroad; the Associated Company Towns and Remnant Landmarks in Solano and Yolo Counties: 1869-1992, Along with the Historical Townsite of the Tancred Colony	2014
51229	Coleman	Cultural Resources Inventory Report, Logistics Center at Vacaville Project, City of Vacaville, Solano County, California	2018

Historic Map Review

SAS also reviewed a series of historic USGS topographic maps and historic aerial photographs to gather information on past land use and historic development in the Project area. According to the 1859 General Land Office (GLO) Plat maps the vicinity of the Project area did not show any structures, roads, or other historic developments. The Project area itself is situated in relatively flat open land of Rancho Los Putos.

Review of the 1968 historic aerial (historicaerials.com) depicts the project area and surrounding vicinity on relatively flat open land with relatively little development outside of the nearby railroad to the west, canal to the east and rural structures to the north. or mining activity. By 1993 aerials show industrial development surround in the Project area and the existing roads the forms the perimeter of the Project area. All subsequent aerials show the continued development of the airport and industrial park in the surrounding area.

FIELD SURVEY

Methods

The majority of the Project area was previously surveyed by SAS in March 2018. On January 28, 2020, SAS archaeologists Jason Coleman (M.A., R.P.A.) and Susan Talcott (Ph.D.) conducted an intensive pedestrian survey of the newly added parcel (APN 0133210710) using 15 meter or narrower transects. The four parcels that were previously surveyed in 2018 were re-surveyed with wider 30 meter transect spacing. Seasonal water channels, rodent burrows, recent tire tracks, other recent ground disturbances, and stone cobbles were thoroughly inspected, and the property was documented with digital photographs. A sub-meter accurate Trimble GPS unit was utilized to verify project area boundaries.

Results

The Project area is bordered on the west by Cessna Drive, on the east by East Monte Vista Avenue, on the south by Aviator Drive, and on the north by and open field and a paved parcel containing the Solano Irrigation District headquarters building. The new parcel of the Project area was an open dirt field that appeared to have been recently cleared based on tire tracks and dirt push piles. In addition, there were concrete fragments, modern debris, and aggregate base observed at various locales. The previous four parcels were open fields with shrubs throughout. All of the parcels contained recent dried water channels created from rapid erosion events after recent storms and all parcels had extensive river cobbles of multiple stone material types scattered throughout. Observed stone cobbles consisted of Franciscan Chert, multiple types of cryptocrystalline silicate, basalt, and quartz. These source materials were often utilized by Native American's for tool production, however, none of the observed cobbles had evidence of cultural use. In addition, there was a large "pond" that formed in the southeast corner of the Project area. Prior to industrial development surrounding the project area there were two seasonal waterways that flowed through the Project area, the current water erosion, pond, and number of cobbles is consistent with the presence of previous streams in the area. Overall, ground surface visibility was good, the new parcel had approximately 95% visibility and the other four parcels had approximately 70-80% visibility. During survey, SAS did not identify any pre-contact or historic-era sites or isolates within the Project area. See Attachment B photographs for current site conditions.

RECOMMENDATIONS

The NAHC SLF search and NWIC records search were negative for cultural resources in the Project area. Intensive archaeological survey in 2018 and 2020 did not identify any previously unrecorded cultural resources. As such, SAS recommends no further management.

In the event that presently undocumented buried archaeological deposits are encountered during any Project-associated construction activity, work must cease within a 50-foot radius of the discovery. A qualified archaeologist must be retained to document the discovery, assess its significance, and recommend treatment. If human remains or any associated funerary artifacts are discovered during construction, all work must cease within the immediate vicinity of the discovery. In accordance with the California Health and Safety Code (Section 7050.5), the Solano County Sheriff/Coroner must be contacted immediately. If the Coroner determines the remains to be Native American, the Coroner will notify the Native American Heritage Commission, which will in turn appoint a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the Applicant and a qualified archaeologist to determine the proper treatment of the human remains and any associated funerary objects. Construction activities will not resume until either the human remains are exhumed, or the remains are avoided via Project construction design change.

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ATTACHMENT A

Figures

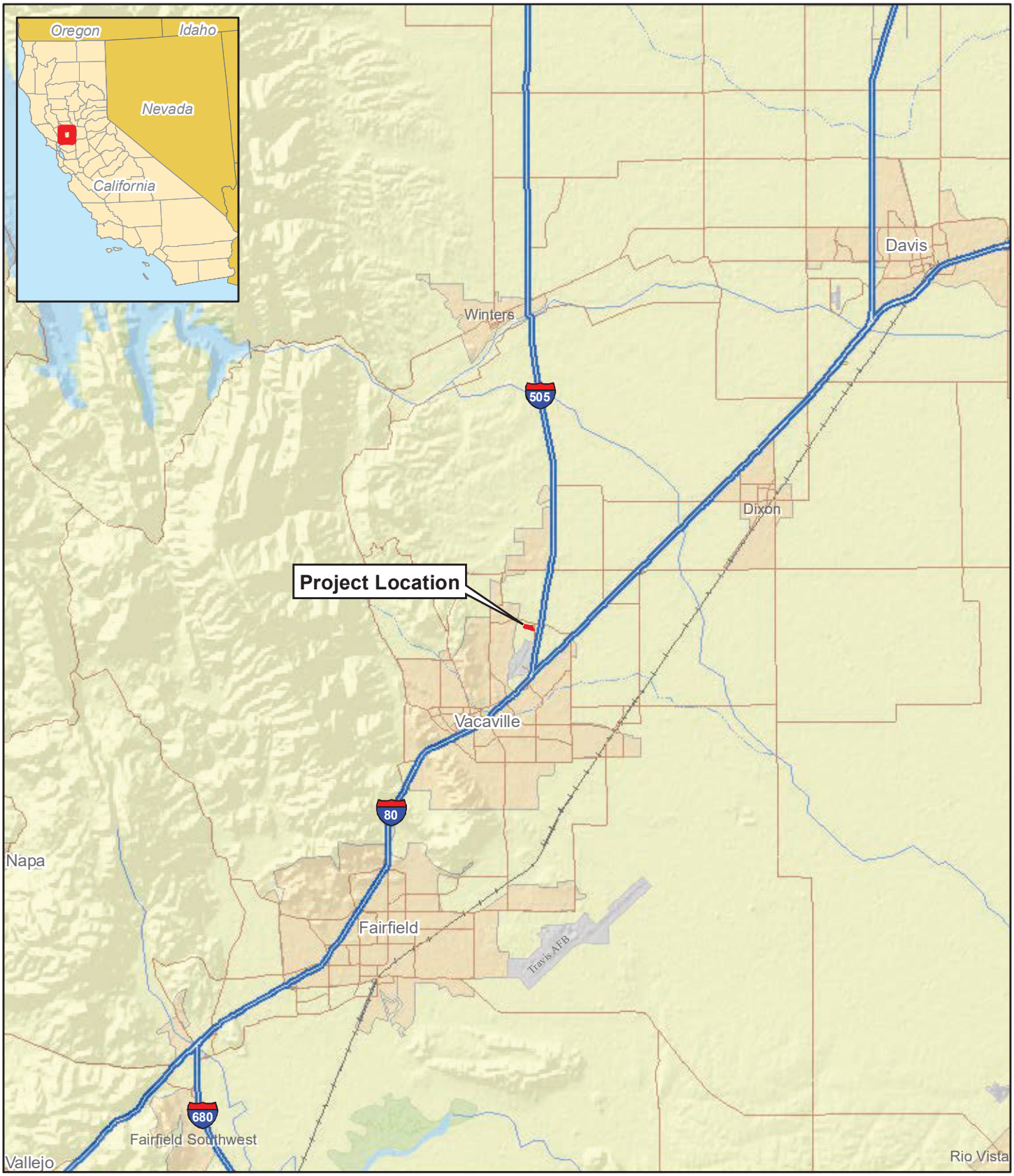

Figure1. Project Vicinity Map.

Cessna and Aviator Project Area

1:250,000

0 3 Miles

0 6 Kilometers

Sources: *USA Base Map* [layer],*Data and Maps* [CD]. ESRI, 2006.

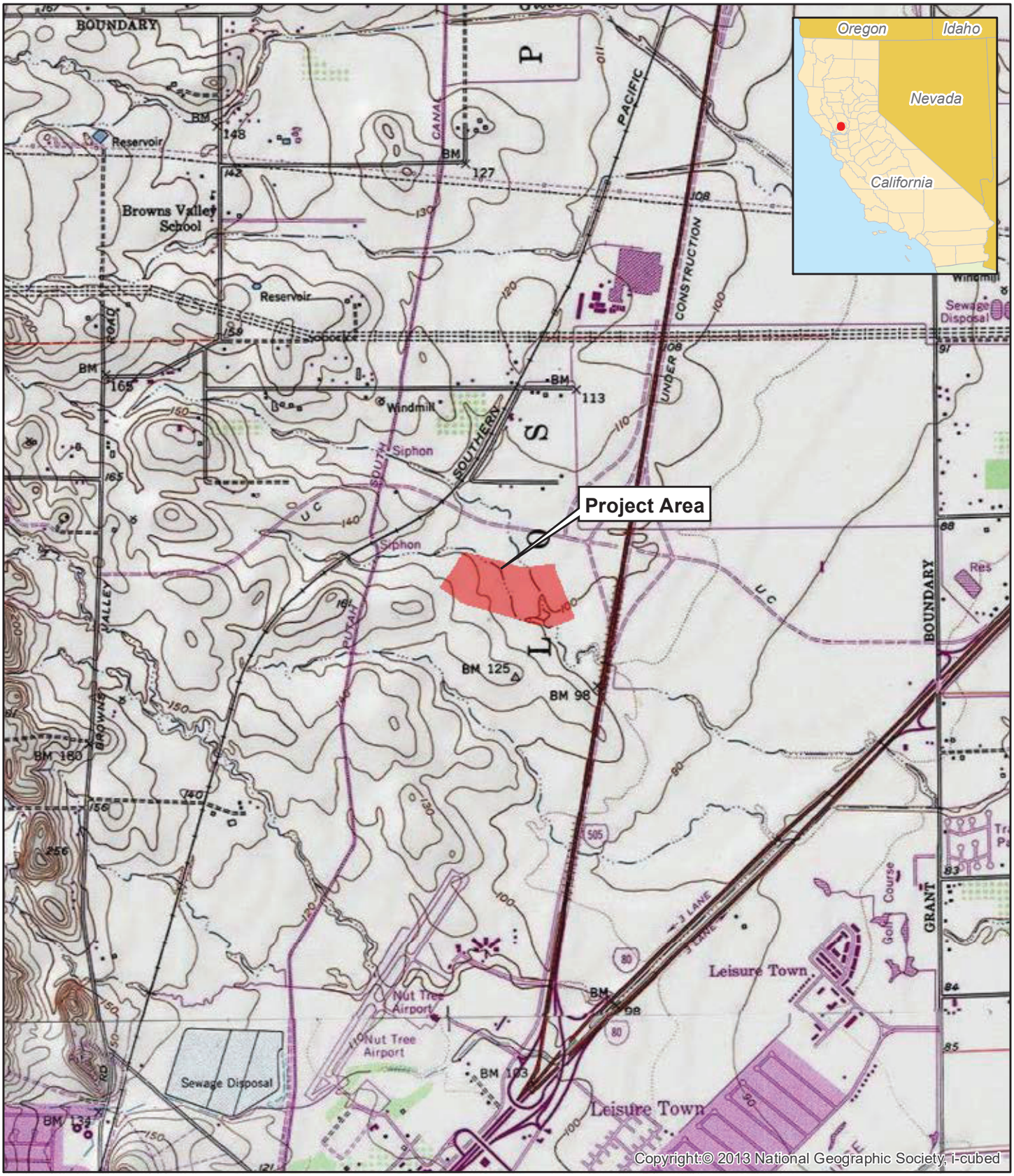

Figure 2. Project Location Map.

Cessna and Aviator Project Area

Los Putos Land Grant (Presumed T6N, R1W, Section 3).
Allendale 7.5' Series Quadrangle, USGS, 1975, pr 1978.

1:24,000

0.5 Miles

1 Kilometers

Figure 3. Project Area Map.

Cessna and Aviator Project Area

Total Acres: 31.83

1:4,200

0 200 Feet

0 100 Meters

ATTACHMENT B

Photographs

Plate 1. *Overview of new parcel (APN 0133210710) from northwest corner of Project area, facing east.*

Plate 2. *Overview from northwest corner of Project Area, facing south.*

Plate 3. *Small pond that formed in the southeast corner of Project area, facing east.*

Plate 4. *East half of project area with seasonal water channels, facing northeast.*

Plate 5. *Overview of modern disturbance in the north parcel of the Project area, facing west.*

Plate 6. *Close up of river cobble concentration, facing east.*

Appendix D

Geotechnical Engineering Report

Geotechnical Engineering Report

CESSNA BEECHCRAFT BUILDERS

Vacaville, CA

MPE No. 03569-01

MPE

MID PACIFIC ENGINEERING, INC.

December 30, 2017

Geotechnical Engineering Report

CESSNA BEECHCRAFT BUILDINGS

Vacaville, California

MPE No. 03569-01

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MPE

Geotechnical Engineering Report

CESSNA BEECHCRAFT BUILDINGS

Vacaville, California

MPE No. 03569-01

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MPE
MID PACIFIC ENGINEERING, INC.

REDDING
530-246-9499 p
530-246-9527 f

WEST SACRAMENTO
916-927-7000 p
916-372-9900 f

GEOTECHNICAL ENGINEERING | EARTHWORK TESTING | MATERIALS ENGINEERING AND TESTING | SPECIAL INSPECTIONS

Geotechnical Engineering Report
CESSNA BEECHCRAFT BUILDINGS
Cessna Drive and Aviator Drive
Vacaville, California
MPE No. 03569-01
December 30, 2017

INTRODUCTION

GENERAL

We have completed a Geotechnical Engineering investigation for the proposed warehouses project to be constructed east of Cessna Drive and north of Aviator Drive in Vacaville, California. The purposes of our study were to investigate the site, soil and groundwater conditions across the project site and to prepare Geotechnical Engineering conclusions and recommendations regarding design and construction of the proposed warehouse and associated improvements.

SCOPE OF WORK

Our scope of work included the following:

1. Site reconnaissance;
2. Review of available geologic, seismic, soil, groundwater data and maps containing the site, and historic Google Earth images;
3. Subsurface investigation, including the drilling and sampling of 12 exploratory soil borings to maximum depths of approximately 10 to 26½ feet below existing ground surface;
4. Collection of bulk and relatively undisturbed samples of near surface soils;
5. Laboratory testing of selected soil samples;
6. Engineering analysis; and,
7. Preparation of this report.

This report is specific to the design and construction of the proposed warehouse buildings and associated improvements to be located on the project site as it is described in this report. This report should not be used for design or construction of any other proposed future buildings or parcels without review of the proposed improvements by our office. Additional reports and site investigations may be required for future buildings or group of buildings depending on the proposed development.

FIGURES AND ATTACHMENTS

This report contains a Vicinity Map as Figure 1; a Site Plan showing the approximate test boring locations as Figure 2; and, Logs of Soil Borings as Figures 3 through 14. An explanation of the symbols and classification system used on the logs is included as Figure 15. Appendix A contains information of a general nature regarding project concepts, exploratory methods used during the field phase of our investigation, an explanation of laboratory testing accomplished, and laboratory test results. Appendix B contains *Guide Earthwork Specifications* that may be used in the preparation of contract plans and documents.

PROJECT DESCRIPTION

Based on our review of the Undated Site *Plan*, prepared by Leo McGlade and Associates, Inc., we understand that the proposed development will include the construction of 3 new warehouses having building footprints of approximately 205,200 square feet (sq.ft), 104,880 sq.ft. and 109,459 sq.ft. each. We anticipate the new warehouses will be single-story, concrete tilt-up structures with interior concrete slab-on-grade floors. Associated development is anticipated to include construction of new pavements surrounding the warehouses, depressed loading truck docks, underground utilities, trash enclosures, exterior flatwork and typical landscaping.

Based on the existing site topography, we anticipate maximum excavations and fills on the order of one to four feet for development of the planned improvements.

FINDINGS

SITE DESCRIPTION

The irregular-shaped, approximately 24-acre property is located within the Vacaville Business Park in Vacaville, California. The site is bounded to the north by a Vacaville Corporate Center Building, beyond which is Vaca Valley Parkway; to the east by Cessna Drive; to the south by Aviator Drive, beyond which are multiple buildings; and, to the east by East Monte Vista Avenue, beyond which are storage buildings.

At the time of our field investigation, the site supported a sparse concentration of weeds, bushes and small to large trees. Mature trees were observed along the south, west and east boundaries of the project site. Erosion channels were observed in the eastern portion of the site meandering in different directions; the depth of channels varied throughout from several inches to about two feet. In the southeast portion of the site, a dry detention basin with eroded sediments was observed. An approximately two foot high berm consisting of soil, gravels, concrete rubble, and debris was observed extending north south in the southeastern portion of the site. A concrete weir extending across the berm and two storm drain inlets surrounded by rip rap were observed on the eastern portion of the site. Buried Polyvinyl chloride (pvc) pipe was also observed within the vicinity of the berm. In the north portion of the Planned Building C, two large concrete drain pipes were observed.

Topography across the site is relatively flat with a gentle downward slope from west to east with an average surface elevation of approximately +110 feet relative to mean sea level (msl), based on review of the topographic information presented on the *United States Geological Survey (USGS) 7.5 Minute Series Topographic Map of the Allendale Quadrangle, California (2015)*.

SITE HISTORY

As part of our work, we have reviewed aerial photographs of the project site on Google Earth taken since 1993. In general, the project site has remained fallow since 1993, with the exception of an artificial berm located on the eastern end.

Review of an aerial photograph taken from 2003 indicates a wet basin in the eastern end. From 2003 to 2007 the project site remained relatively unchanged. In 2008, storm drain inlets are observed between the existing berm and East Monte Vista Avenue. An aerial

photograph taken in 2012 indicates a rectangular weir constructed on the southeast portion of the site.

The site has remained relatively unchanged since 2012 and consistent with our observations of the site conditions during our site visits in November 2017.

SUBSURFACE SOIL CONDITIONS

The surface and near-surface soils encountered by our test borings generally consisted of medium stiff to stiff, silty/sandy clay and sandy/clayey silt to a depth of approximately 1 to 10 feet below existing grades. The near-surface clays and silts were underlain by stiff to very stiff, clayey silts, clayey sands, fine sandy silts, and silts clays to the maximum depths explored of approximately 10 to 26½ feet below surface grades.

Please refer to Figures 3 through 14 for further details regarding the soil conditions at a particular boring location

Please note that subsurface conditions within the borings are representative of the soil conditions at the time of exploration and at the specific location. It should be expected that soil conditions across the site can and will vary laterally and vertically from the soils encountered during our investigation.

GEOLOGIC STRUCTURE

The project site is located near the eastern boundary of the Coast Ranges geomorphic province of California, adjacent to the Great Valley geomorphic province. The Coast Ranges are northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level), and valleys. The ranges and valleys trend northwest, sub-parallel to the active San Andreas Fault. Strata dip beneath alluvium of the Great Valley. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata (California Geological Survey, Note 36).

The Great Valley of California is generally considered to be an elongated sedimentary trough, approximately 450 miles long and 50 miles wide, which has been filled by a thick sequence

of Jurassic to Holocene continental and marine sediments. The sediments have been folded into an asymmetric syncline, the axis of which lies immediately east of the interior Coast Ranges (Bailey, 1966).

Surface elevations within the Great Valley generally range from several feet below mean sea level (msl) to more than 1000 feet above msl. The major topographical feature in the Sacramento Valley is the Sutter Buttes (a volcanic remnant), which rise approximately 1980 feet above the surrounding valley floor.

Site Geology

The United States Geological Survey (USGS) *Preliminary Geologic Map of Solano County and Parts of Napa, Contra Costa, Marin, and Yolo Counties, California* (Helley and Sims, 1973) shows the site to be underlain by Pliocene-aged Tehama Formation (Map Symbol: T_{pth}) and the Quaternary-age older alluvium (Map Symbol: Q_{oal}). The Tehama Formation consists of poorly consolidated, siltstone, sandstone, tuff, and conglomerate. The older alluvium deposits consist of sand, silt, clay, and gravel deposited from present-day stream and river systems that drain the Coast Ranges, Klamath Mountains and Sierra Nevadas.

Groundwater

Groundwater was encountered in Borings D8 and D9 at a depth of 20 feet below existing grades. Please note, the test borings may not have been left open long enough for groundwater to reach static equilibrium; therefore, the potential exists that groundwater could rise to levels higher than measured or encountered in our borings.

To supplement our groundwater information, we have reviewed groundwater elevation data obtained from the California Department of Water Resources (DWR) monitored well identified as #384073N1219697W001, located approximately 1½-mile northwesterly of the project site. Surface elevation at the well is indicated to be about +132 feet msl. The DWR has periodically measured water elevations in this well from at least July 17, 1975, to March 24, 2017. The lowest measured groundwater elevation in the well occurred on September 20, 1994, at an elevation of approximately +25 feet msl (about 107 feet below existing grade at the well); the highest elevation occurred on July 17, 1975, at an elevation of +64 feet msl (about 64 feet below existing grade at the well).

Recent measurements taken over the past 10 to 15 years by the DWR and depth to groundwater encountered in previous borings performed in the area indicates the groundwater elevation in this area has varied between approximately 25 to 85 feet below existing site grades.

CONCLUSIONS

BEARING CAPACITY AND FOUNDATION SUPPORT

The surface soils across the site have been disturbed by erosion and water drainage causing meandering drainage channels. Thorough recompaction of the upper soils, which have been disturbed, will be crucial to providing uniform support for the planned structures.

The site contains a berm, weir, and storm drain inlets in the eastern portion (See figure 2). Buried debris, underground utilities and piping may be present in the area and will require removal creating loose and variable soil conditions. We will recommend sub-excavation and additional processing and recompaction of the soils within the areas of the existing tress, berm, weir, and storm drain inlets to facilitate proper clearing and removal of remnants and roots, and promote uniform support for the planned structures. Specific recommendations for sub-excavation and recompaction are presented In the SITE PREPARATION AND SUB-EXCAVATION section of this letter.

In our opinion, the undisturbed native soils are capable of supporting the proposed structures and pavements provided the further recommendations regarding site preparation and soils compaction are followed. Our work also indicates that engineered fill, properly placed and compacted in accordance with the recommendations of this report, will be capable of supporting the proposed improvements.

SEISMIC CODE PARAMETERS

Section 1613 of the 2016 edition of the CBC references ASCE Standard 7-10 for seismic design. The following seismic parameters were determined based on the site latitude and longitude using the public domain computer program developed by the USGS. The seismic design parameters summarized in the table below may be used for seismic design of the proposed improvements.

Table 1 –2016 CBC Seismic Design Parameters

Latitude: 38.3920° N Longitude: -121.9560° W	ASCE 7-10 Table/Figure	2016 CBC Table/Figure	Factor/ Coefficient	Value
Short-Period MCE at 0.2s	Figure 22-1	Figure 1613.3.1(1)	S_S	1.662 g
1.0s Period MCE	Figure 22-2	Figure 1613.3.1(2)	S_1	0.569 g
Soil Class	Table 20.3-1	Section 1613.3.2	Site Class	D
Site Coefficient	Table 11.4-1	Table 1613.3.3(1)	F_a	1.0
Site Coefficient	Table 11.4-2	Table 1613.3.3(2)	F_v	1.5
Adjusted MCE Spectral Response Parameters	Equation 11.4-1	Equation 16-37	S_{MS}	1.662 g
	Equation 11.4-2	Equation 16-38	S_{M1}	0.854 g
Design Spectral Acceleration Parameters	Equation 11.4-3	Equation 16-39	S_{DS}	1.108 g
	Equation 11.4-4	Equation 16-40	S_{D1}	0.569 g
Seismic Design Category	Table 11.6-1	Section 1613.3.5(1)	Risk Category I to IV	D
	Table 11.6-2	Section 1613.3.5(2)	Risk Category I to IV	D

MCE – Maximum Considered Earthquake
g – Acceleration due to gravity

The PGA_M (Section 1803.5.11 of the 2016 CBC) for the site is 0.608 g.

LIQUEFACTION POTENTIAL

Liquefaction is a soil strength and stiffness loss phenomenon that typically occurs in loose, saturated cohesionless sands as a result of strong ground shaking during earthquakes. The potential for liquefaction at a site is usually determined based on the results of a subsurface Geotechnical Engineering investigation and the groundwater conditions beneath the site. A full liquefaction analysis was beyond our scope of work performed for this project; however, based on the stiff and dense nature of the soils underlying the site, anticipated depth to true groundwater, and the mapped geology, it is our opinion that the potential for liquefaction occurring beneath this site is low. The site is not located within a State Designated Seismic Hazard Zone for liquefaction.

EXCAVATION CONDITIONS

Based on our field investigation, the native soils on the site should be readily excavatable with conventional earthmoving and trenching equipment typically used in the area.

In general, we anticipate soil sidewalls for most site excavations will remain stable at near-vertical inclinations for short periods of time without significant caving, unless saturated and/or cohesionless soils are encountered or allowed to dry. Excavations encountering groundwater will be susceptible to sloughing or caving if left open for an extended period of time requiring sloped excavations and other stabilization methods.

Excavations deeper than five feet that will be entered by workers should be sloped and/or braced in accordance with current OSHA regulations. The contractor must provide an adequately constructed and braced shoring system in accordance with federal, state and local safety regulations for individuals working in an excavation that may expose them to the danger of moving ground. If material is stored or heavy equipment is operated near an excavation, stronger shoring would be needed to resist the extra pressure due to the superimposed loads.

EXPANSIVE SOILS

The results of our subsurface exploration indicate the major portion of the on-site surface, near-surface soils are silty/sandy clays, and sandy/clayey silts with a medium to high expansion potential when tested in accordance with the ASTM D4829 test method (see Figures A1 through A3). In our opinion, these soils are capable of exerting significant expansion pressures on foundations, interior slabs-on-grade and exterior flatwork, if exposed at or near final subgrades.

To mitigate the effects of expansive soils on foundations, we will recommend foundations be deepened to a point where moisture variations are reduced.

In floor slab and exterior flatwork areas, on past projects, replacement with imported non-expansive soils or aggregates, or lime treatment of the upper 15 to 24 inches of expansive soils has produced significant reductions in expansive soil movements, but some floor slab (both interior and exterior) movement can still occur. Where average performance is desired and it is understood that some cracking and movement can still occur, we will

recommend 15 inches of replacement or treatment. Where performance expectations are high, we will recommend replacement or treatment extend at least 24 inches.

Specific recommendations to mitigate the effects of potentially expansive soils are provided in later sections of this report.

Fill Material Suitability

The on-site soils are considered suitable for use as engineered fill provided the materials are free of roots, asphalt and concrete rubble, organic materials, pipe, drainage rocks, other deleterious debris and are at a suitable moisture content to achieve the desired degree of compaction. Removal of roots, rubble and debris from on-site soils may require laborers handpicking the fill materials. Clay soils will not be suitable for use within the upper portions of building pad or flatwork subgrades, unless they are lime treated.

Pavement Subgrade Quality & Support

Based on our experience on nearby sites with similar soil conditions and previous laboratory testing results it is our opinion that the near-surface soils are considered poor quality materials for the support of asphalt concrete pavements. Therefore, we have selected a Resistance ("R") value of 5 for the design of pavements constructed on untreated pavement soil subgrades.

Based on our experience and the results of laboratory testing (see Figure A4), chemical treatment of the near-surface clay soils may result in a substantial improvement to the support characteristics of the soil subgrade, and reduce the required thickness of the base materials by increasing the R-value. Based on the laboratory test results of a lime treated sample of the anticipated pavement subgrades soils, an R-value of 50 was utilized for the design of pavements constructed on a chemically treated subgrade.

Chemical treatment also can be used to reduce the moisture content of near-saturated soils to facilitate grading operations.

Soil Corrosion Potential

Two representative samples of the near-surface soils were submitted to Sunland Analytical to determine soil pH, minimum resistivity, chloride and sulfate concentrations to help

evaluate potential for corrosive attack upon reinforced concrete and exposed buried metal. The results of the Corrosivity testing are summarized in Table 2.

TABLE 2 - SOIL CORROSIVITY TESTING

Analyte	Test Method	Sample Identification		
		B2 (1-3')	B4 (1-3')	B5 (1-3')
Soil pH	CA DOT Test #643 Modified (Sm. Cell)	6.50	5.85	5.37
Minimum Resistivity		750 Ω-cm	1180 Ω-cm	720 Ω-cm
Chloride	CT 417	3.0 ppm	3.4 ppm	11.5 ppm
Sulfate	CT 422	17.1 ppm	16.5 ppm	12.5 ppm

* = Small cell method, Ω-cm = ohm-centimeters, ppm = parts per million

The California Department of Transportation Corrosion Technology Section, Office of Materials and Foundations, Corrosion Guidelines Version 2.1, January 2015, considers a site to be corrosive to foundation elements if one or more of the following conditions exists for the representative soil and/or water samples taken: has a chloride concentration greater than or equal to 500 ppm, sulfate concentration greater than or equal to 2000 ppm, or the pH is 5.5 or less. A minimum resistivity value for soil and/or water less than 1,000 ohm-cm indicates the presence of high quantities of soluble salts and higher propensity for corrosion. Measured resistivity less than 1000 Ω-cm can lead to shortened life of buried metal structures (CT 643). One sample tested indicates a pH of slightly less than 5.5 and is considered acidic and can react with the lime in concrete to form soluble reaction products that can more easily leach out of the concrete. This is more of special concern where the sulfate concentrations in the soil are above 2000 parts per million (ppm), as the more brittle concrete can be more susceptible to cracking which can allow for sulfate attack of the steel reinforcement. Results of our sulfate testing indicate concentrations are well below 2000 ppm. Acidic (low pH) conditions can cause discoloration of the concrete surface resulting in a yellowish or rust color distributed over the concrete surface.

Table 19.3.1.1 – *Exposure Categories and Classes*, American Concrete Institute (ACI) 318-14, Section 19.3, as referenced in Section 1904.1 of the 2016 CBC, indicates the severity of sulfate exposure for the samples tested is *not a concern*. Ordinary Type I-II Portland cement is considered suitable for use on this project, assuming a minimum concrete cover is maintained over the reinforcement.

Our experience with concrete and steel corrosion is generally based on the Caltrans corrosion guidelines, which have been developed for use by designers for use on public transportation projects, such as bridges. Generally, these structures are more highly sensitive to corrosion of concrete and steel when compared to the proposed development.

Mid Pacific Engineering, Inc. are not corrosion engineers. Therefore, to further define the soil corrosion potential at the site, or to determine the need or design parameters for cathodic protection or grounding systems, a corrosion engineer should be consulted.

GROUNDWATER AND SEASONAL WATER

Groundwater was encountered in Borings D8 and D9 performed on November 17, 2017, at a depth of approximately 20 feet below existing grades at the site. However, the test borings may not have been left open long enough for groundwater to reach static equilibrium; therefore, the potential exists that groundwater could rise to levels higher than measured or encountered in our borings. Therefore, we conclude that the permanent groundwater table could be a factor in the design or construction of the planned improvements.

Depending on the time of construction, groundwater could be encountered at the site and generally would affect the depressed loading docks, underground utility construction, including unstable trench bottoms, dewatering and shoring requirements. The contractor should be prepared to control the groundwater in the excavations, dispose of the water in accordance with local regulations, and should be aware that all soils excavated from near or below the groundwater table will be in a saturated condition, and will not be compactable without significant aeration or drying. Means and methods for dewatering operations and re-use of excavated soils should be selected by the contractor. Drying methods may include air drying, mixing, replacement with drier materials or chemical treatment.

The near-surface soils may be in a near-saturated condition during and for a significant time following the rainy season due to rain water being unable to penetrate through the cohesive soils below existing site grades. If grading operations are to proceed shortly after the rainy season, and before prolonged periods of warm dry weather, the near-surface soils may be at moisture contents where significant and prolonged aeration or lime-treatment may be required to dry the soils to a moisture content where the specified degree of compaction can be achieved. The contractor should anticipate the additional time and effort necessary to achieve a compactable moisture content.

The soils supporting pavements and slab-on-grade concrete will be moist at the time of site preparation. The soil moisture will be present through the life of structures and pavements, and can increase due to high groundwater, seasonal moisture, storm water or irrigation water. The presence of moist soil beneath the proposed structures should be considered during design. Moisture vapor penetration resistance should be a significant consideration in design and construction of the interior slabs.

RECOMMENDATIONS

We consider it essential that our office review site, grading, and structural foundation plans to verify the applicability of the following recommendations, and to provide supplemental recommendations, as conditions dictate.

The recommendations presented below are appropriate for typical construction in the late spring through fall months. The on-site soils likely will be saturated by rainfall in the winter and early spring months, and will not be compactable without drying by aeration or the addition of lime (or a similar product) to dry the soils. Should the construction schedule require work during wet conditions, additional recommendations can be provided, as conditions dictate.

The existing berm should be potholed, sampled and tested during the initial stages of grading to verify the quality and suitability of the soils for use as engineered fill.

SITE CLEARING AND SUBEXCAVATION

Prior to site grading, the site should be cleared of all surface and subsurface items designated for removal including but not limited to vegetation, trees, concrete drainage pipe, polyvinyl chloride pipe, concrete structures, drainage rock, underground utilities (including irrigation lines) to be relocated or abandoned including trench backfill, demolition debris, rubble, deleterious material, and any other items designated for removal. Where practical, the clearing should extend a minimum of five feet beyond the limits of the proposed structural areas of the site including buildings and pavements. Existing underground utilities, if encountered within the proposed building pad, should be completely removed and/or rerouted as necessary. Removal of underground utilities also should include all associated trench backfill. Utilities located outside the building areas should be properly abandoned (i.e., fully grouted provided the abandoned utility is situated

at least 2½ feet below the final subgrade level to reduce the potential for localized "hard spots"). All trees/bushes designated for removal should include the rootballs and roots ½ inch or larger in size. The existing berm should be completely excavated to expose native soils.

At the time of our field investigation, the existing detention basin did not contain water. If water is present at the time of construction water within the basin should be pumped out of the basin to expose the underlying soils. These soils will likely be in a saturated condition and require several days to dry out prior to performing additional site clearing operations within the limits of the basin.

The existing detention basin and other low lying areas and erosion drainages present on-site should be cleaned of organics, saturated and unstable soils, to expose firm, native soils as determined by our representative. This may require additional sub-excavation to remove organics or unstable soils and to expose a firm, stable subgrade. Organically-laden soils will not be suitable for use as engineered fill construction and will need to be hauled off or used in an approved landscape only area. The exposed surface should be scarified to a depth of at least 12 inches, moisture conditioned to at least the optimum moisture content and compacted to at least 90 percent of the ASTM D1557 maximum dry density. Areas containing unstable soils, as determined by our representative, should be excavation to expose a firm base and the grades should be restored with engineered fill placed in accordance with the recommendations for stabilizing the bottom of excavation, as conditions dictate. Deeper erosion drainages ranging from one to two feet below subgrade were observed in the north central portion of the site, these drainage channels may require benching to provide access to equipment in order to remove loose unstable soils and provide proper processing and compaction. The contractor should include an add/deduct unit price to account for variations during site clearing, and subexcavation.

Structural areas should be stripped of surface vegetation, landscaping materials and organically contaminated topsoil; strippings may be stockpiled for later use or disposed of off-site. If used, *on-site strippings may be placed in landscaped areas, provided they are kept at least five feet from the building pad or pavements, moisture conditioned and compacted. Strippings should not be used in landscaped berms that will support either soundwalls, retaining walls, or concrete flatwork.*

Depressions resulting from clearing operations, as well as any loose, saturated soils, as identified by our representative, should be cleaned out to firm, undisturbed soils and

widened, as necessary, to allow access with construction equipment. Depressions should be backfilled with engineered fill in accordance with the recommendations contained in this report. Any other loose, disturbed, soft or otherwise unstable materials should be removed to expose a firm base prior to backfilling to restore the areas back to the required grades.

Our review of available literature and historical photographs provide a limited site history. Therefore, unknown buried structures (foundations, basement walls, piping, etc.), as well a tree roots and rootballs, or loose fills may be present on-site and may be encountered during construction. If encountered, these items should be removed and the resulting cavities or holes should be backfilled with properly moisture conditioned and compacted engineered fill as described in this report. Areas of suspected previously placed fills should be excavated to expose firm, undisturbed native soils.

It is essential that our representative be present during clearing and overexcavation operations to verify adequate removal of existing structures and stockpiles, as well as the presence and condition of any existing fill materials, and determine the need for additional over-excavation of areas. It is essential that excavations resulting from clearing operations be left as shallow dish-shaped depressions for proper location and to allow proper access with compaction equipment during grading operations. If clearing and removal of structures takes place without direct observation by the Geotechnical Engineer, deeper cross-ripping and/or over-excavation of the disturbed areas and the building pad affected will be required.

It has been our experience that subgrade soils near or adjacent to irrigated agricultural areas and irrigation ditches may be too wet to properly compact and may require drying, probably by aeration depending on site and weather conditions, prior to achieving compaction. Evaluation of the condition and determination of the appropriate drying technique should be made by our representative at the time of construction. The contractor should anticipate wet soils in both their construction bids and schedules.

SITE PREPARATION

Following site clearing and subexcavation, areas designated to receive engineered fill, including previously excavated areas and areas left at-grade, should be uniformly scarified to a depth of at least 12 inches, moisture conditioned to at least two percent above the optimum moisture content, and compacted to not less than 90 percent of the maximum dry density, as determined by ASTM D1557 specifications. Thorough and uniform compaction of the existing surface soils is crucial to support of the planned structures, therefore full time

observation and testing by the Geotechnical Engineer's representative is recommended during building pad preparation and compaction.

Compaction operations should be undertaken with a heavy, self-propelled, sheepsfoot compactor (Caterpillar 815 or equivalent size compactor) and should be performed in the presence of our representative who will evaluate the performance of the subgrade under compactive load and identify loose or unstable soils that could require additional excavation and/or compaction. Loose, soft, or unstable soils, or fill soils should be cleaned out to firm, undisturbed and stable soils, as determined by our representative, and should be restored to grade with engineered fill compacted in accordance with the recommendations of this report. Difficulty in achieving subgrade compaction or unusual soil instability may be indications of loose fill associated with past subsurface items, or loose fills placed during previous site uses. Should these conditions exist, the materials should be excavated to check for subsurface structures and loose fills, and the excavations backfilled with engineered fill. We recommend construction bid documents contain a unit price (price per cubic yard) for all excess excavation due to loose, soft, or unsuitable materials and replacement with engineered fill.

Engineered Fill Construction

Engineered fill should be placed in horizontal lifts not exceeding six inches in compacted thickness. Engineered fill consisting of granular soils should be thoroughly moisture conditioned to at least the optimum moisture content and uniformly compacted to at least 90 percent of maximum dry density as determined by ASTM D1557. Native on-site soils should be compacted at a moisture content of at least two percent above the optimum moisture content. Fill materials should be uniformly and thoroughly moisture conditioned to the full depth of each lift. Compactive effort should be applied uniformly across the full width of fill construction. Additional passes with the compactor shall be added, as required by the Geotechnical Engineer, to achieve a firm, stable and unyielding subgrade condition.

Engineered fill should be properly benched into the side slopes of excavations to remove loose surficial soils. Each bench should consist of a level terrace excavated at least 12 inches into the slope. Our representative should observe the benching into the slopes to evaluate the need for additional or larger benches, based on exposed conditions.

The on-site soils will be suitable for use as engineered fill if the materials are free of rubbish, rubble, debris, and concentrations of organics, and have a maximum particle size of three

inches or less. Hand picking of exposed roots, rubbish and debris should be performed by the Contractor to adequately clear the grades and properly prepare and clear the soils proposed as fill, prior to use.

Imported fill material, if required, should consist of well graded granular soils with a Plasticity Index of 15 or less, an Expansion Index of 20 or less, and should have no particles greater than three inches in maximum dimension. Clean, open graded gravels (such as crushed rock or pea gravel) and other such materials are not acceptable for fill construction. The contractor also should supply appropriate documentation for imported fill materials indicating the materials are free of known contamination and have corrosion characteristics within acceptable limits. Imported soils should be tested and approved by the Geotechnical Engineer office prior to being transported to the site.

As discussed above, we are recommending the upper 15 to 24 inches of building pad and exterior flatwork subgrades should consist of lime-treated on-site soils, imported non-expansive, granular soils or aggregate base. The final decision regarding the depth of the non-expansive layer should be made by the owner, based on their desired level of performance. Clays should not be used within the upper portion of building pad or exterior flatwork fills, unless they are lime-treated. Building pad construction should extend at least five feet beyond the outside edge of building foundations and should also extend at least two feet beyond adjacent exterior columns, flatwork and pavements areas.

The upper 12 inches of final untreated building pad subgrades (import or aggregates) should be brought to at least the optimum moisture content and uniformly compacted to not less than 95 percent of the maximum dry density, regardless of whether final grade is achieved by excavation, filling or left at existing grade.

The upper 12 inches of final exterior flatwork subgrades (import or aggregates) should be scarified, brought to at least the optimum moisture content, and uniformly compacted to not less than 90 percent of the maximum dry density, as determined by ASTM D1557, regardless of whether final grade is completed by excavation, filling, or left at-grade.

The upper six inches of untreated pavement subgrades and exterior slab subgrades supporting vehicle loadings should be scarified, moisture conditioned to at least two percent above the optimum moisture content, processed, and uniformly compacted to at least 95 percent of the maximum dry density, regardless of whether final grade is completed by excavation, filling, or left at existing grade. Final pavement subgrade preparation and

compaction should be performed just prior to placement of aggregate base, after construction of underground utilities is complete. The completed pavement subgrades must be proof-rolled and stable under construction traffic prior to placement of aggregate base.

Permanent excavation and fill slopes should be constructed no steeper than two horizontal to one vertical (2:1) and should be vegetated as soon as practical following grading to minimize erosion. As a minimum, erosion control measures including placement of straw bale sediment barriers or construction of silt filter fences in areas where surface run-off may be concentrated would be prudent. Slopes should be over-built and cutback to design grades and inclinations.

Site preparation should be accomplished in accordance with the recommendations of this section and the appended *Guide Earthwork Specifications*. A representative of the Geotechnical Engineer must be present during site clearing and preparation, grading operations, to perform compaction testing and observe grading to verify compliance with the recommendations of this report.

LIME-TREATMENT ALTERNATIVE

It will be important that the subgrade soils be observed and evaluated after site clearing to verify the most appropriate treatment options based on the exposed soil conditions.

The following are *preliminary* recommendations for clayey soil subgrades. Revised recommendations will be needed if sands and silts are exposed at building pad or pavement subgrade elevations. Additional laboratory testing may be needed to determine the most appropriate product (or products) for the exposed soil conditions.

If lime-treatment is selected for pavement subgrades and/or building pad/flatwork subgrades, site preparation should be performed in accordance with the following recommendations. Following the site preparation, as recommended above, the upper 15 to 24 inches of the building pad and exterior flatwork grades (depending on desired performance level), and the upper 12 inches of pavement subgrades should be treated with at least four percent high-calcium or dolomitic quicklime, as measured by dry unit weight of the untreated soil. To achieve this spread rate, a minimum of 4½ pounds of lime per cubic foot of soil should be spread and mixed. Please be aware that multiple lifts will be required for treatment depths deeper than 18 inches.

A large self-propelled rotary mixer should be used for mixing and remixing. Lime should be thoroughly mixed and remixed, as necessary, to a minimum depth of 15 to 24 inches at a minimum spread rate of at least 4½ pounds of lime per cubic foot. This spread rate is provided for preliminary estimation purposes only as the actual amount of product can only be determined at the time of construction based upon the prevailing site, soil and moisture conditions. The contractor should include an add/deduct unit price for lime to account for variations in the quantities of product used.

It is emphasized that higher spread rates and/or deeper mixing depths with proportionately higher spread rates will needed for areas exposing the wet and/or unstable soils.

Initial mixing of lime should be followed by remixing the next day. Additional remix passes should be performed to provide a uniform soil-lime mixture. Lime stabilized soils should be compacted to at least 95 percent of the ASTM D1557 maximum dry density at a moisture content of at least two percent above the optimum moisture content. The moisture content of the treated soils should be maintained in the soil until the treated soil is covered by aggregate base or slabs. Compaction operations should be undertaken with a heavy, self-propelled, compactor and should be performed in the presence of our representative who will evaluate the performance of the subgrade under compactive load. No equipment or vehicle traffic should be allowed on the lime-treated materials during the first three days after treatment is completed.

If the lime-treatment alternate is selected, we recommend that additional laboratory testing be performed to further define the amount of lime required to produce the desired results.

A contractor experienced in such work should perform lime-treatment as specified in Chapter 24 of the Caltrans *Standard Specifications*.

UTILITY TRENCH BACKFILL

Based on our borings, the site is primarily underlain mostly by clayey silts, clayey sands, and fine sandy silts. These soils, when coupled with migrating or fluctuating groundwater, may be susceptible to piping into open graded materials, typically used for underground utility bedding and initial backfill. Therefore, we recommend any open graded materials be completely wrapped in a non-woven geotextile fabric. The fabric should be placed in the utility trench, followed by bedding materials, utility piping and initial backfill materials. Following this, the fabric should be folded over the top of the open graded materials, and

overlapped in accordance with the manufactures recommendations. Engineered fill backfill should then proceed.

Utility trench backfill within structural areas should be mechanically compacted as engineered fill in accordance with the following recommendations. We recommend that native soil be used as trench backfill within the perimeter of the building foundations to help minimize soil moisture variations beneath the structures. The native soil backfill should extend at least three feet horizontally beyond perimeter foundation lines. Utility trench backfill should be placed in maximum six-inch lifts, moisture conditioned to near the optimum moisture content and mechanically compacted to at least 90 percent of the maximum dry density as determined by ASTM D1557.

The upper 15 to 24 inches of backfill material for trenches within the building pad and slab-on-grade subgrades should be non-expansive granular soils or aggregate base compacted to 95 percent relative compaction. The upper 12 inches of backfill material for trenches within the lime treated pavement subgrades should be aggregate base compacted to 95 percent relative compaction.

We recommend that underground utility trenches that are aligned nearly parallel with foundations be at least three feet from the outer edge of foundations, wherever possible. As a general rule, trenches should not encroach into the zone extending outward at a 1:1 inclination below the bottom of the foundations. Additionally, trenches parallel to foundations should not remain open longer than 72 hours. The intent of these recommendations is to prevent loss of both lateral and vertical support of foundations, resulting in possible settlement.

FOUNDATION DESIGN

The proposed single-story warehouses may be supported on foundations extending *at least* 24 inches below building pad soil subgrade or lowest adjacent soil grade, whichever is deeper. For this project, the building pad soil subgrade shall be defined as the surface on which the capillary break gravel is placed. Continuous foundations should be at least 12 inches wide and isolated spread foundations should be at least 24 inches wide. Foundations bearing in native, undisturbed soils or engineered fill may be sized for maximum allowable soil bearing pressures of 2000 pounds per square foot (psf) for a dead load, 3000 psf for a dead plus live load, or 4000 psf for total load, including the short-term effects of seismic or

wind forces. The weight of foundation concrete extending below adjacent grade may be disregarded in sizing computations.

Foundation excavations must be observed by a representative of MPE to verify competent and uniform bearing conditions and evaluate the need for any modifications to these recommendations as may be required by specific circumstances. The observations should take place prior to placement of reinforcing steel or forms but following cleaning of the excavations. Some deepening and/or recompaction of foundation bottoms should be anticipated. To account for any re-compaction of foundation bottoms or deepening of foundations that might be required, we suggest bid documents include a unit price for additional compaction or foundation excavation and concrete that may be required.

Foundations must be continuous around the perimeter of the building to help minimize moisture migration beneath the structures.

We recommend that all foundations be adequately reinforced to provide structural continuity, mitigate cracking and permit spanning of local soil irregularities. The structural engineer should determine final foundation reinforcing requirements. However, *as a minimum*, we recommend that continuous foundations be reinforced with four No. 4 steel reinforcing bars, placed two each near the top and bottom of the foundations.

Resistance to lateral displacement of shallow foundations may be computed using an allowable friction factor of 0.25 multiplied by the effective vertical load on each foundation. Additional lateral resistance may be achieved using an allowable passive earth pressure against the vertical projection of the foundation equal to an equivalent fluid pressure of 250 psf per foot of depth. These two modes of resistance should not be added unless the frictional component is reduced by 50 percent since mobilization of the passive resistance requires some horizontal movement, effectively reducing the frictional resistance.

Uplift resistance of the foundations can be provided by weight of the concrete extending below soil grade (150 pcf) and a friction value of 200 psf applied to the sides of the foundations in contact with the soils below lowest adjacent grade.

Interior Floor Slab Support

Interior concrete slab-on-grade floors can be suitably supported upon the soil subgrade and engineered fills prepared in accordance with the recommendations in this report and

maintained in that condition (at least the optimum moisture). That is, interior concrete slab-on-grade floors should be supported upon soil subgrades consisting of at least 15 inches, but up to 24 inches, of uniformly moisture conditioned and properly compacted lime-treated on-site soils, imported *non-expansive* soils or Class 2 aggregate base (AB). Clays must be removed and replaced with non-expansive engineered fill where present at or near subgrade elevation, or they must be lime-treated.

Warehouse Slabs

As a guide minimum, we recommend interior slab-on-grade floors be at least six inches thick and, as a minimum, contain chaired No. 4 reinforcing bars on 18-inch center-on-center spacing, located at mid-slab depth. Final slab thickness, compressive strength, reinforcement, and joint spacing and details should be determined by the structural engineer based on anticipated loadings, uses and desired performance.

It is emphasized that thicker slabs with greater reinforcing will be needed in areas supporting higher loads or where increased performance is desired, especially within the warehouse areas which may be subjected to heavy concentrated loads from vehicles, fork lifts, equipment and storage of products. *The architect or structural engineer should determine the final thickness, strength, reinforcement, and joint spacing of exterior slab-on-grade concrete based on anticipated slab loadings, uses and desired performance.* Temporary loads exerted during construction from vehicle traffic, cranes, forklifts, and storage of palletized construction materials should be considered in the design of the slab-on-grade floors.

Interior warehouse floor slabs should be underlain by *at least* six inches of a layer of Class 2 aggregate base compacted to at least 95 percent of the maximum dry density as determined by ASTM D1557. Please note, if the building pads are constructed with AB materials, an additional six inches of AB is required for slab support.

Modulus of Subgrade Reaction

A maximum modulus of subgrade reaction (k_s) of 150 pounds per cubic inch (pci) is considered appropriate for design on interior floor slabs, based on the upper 12 inches of pad subgrade soils being uniformly compacted to 95 percent of the ASTM D1557 maximum dry density and a minimum six inches of 95 percent compacted AB.

Slab-on-grade floors that will be used for vehicle support (including forklift traffic) should be constructed in accordance with the recommendations presented under the PAVEMENT DESIGN section of this report.

Office Slabs

Interior slab-on-grade floors should be at least four inches thick and, as a minimum, contain chaired No. 3 reinforcing bars on 18-inch center-on-center spacing, located at mid-slab depth. This slab reinforcement is suggested as a guide "minimum" only; final slab thickness and reinforcement, and joint spacing should be determined by the structural engineer. Temporary loads exerted during construction from vehicle traffic, cranes, forklifts, and storage of palletized construction materials should be considered in the design of the slab.

Slabs that will receive moisture sensitive floor covering should be underlain by a layer of free-draining gravel serving as a deterrent to migration of capillary moisture. The gravel layer should be at least four inches thick and should be graded such that 100 percent passes a one-inch sieve and none passes a No. 4 sieve. If heavier floor loads are anticipated, the crushed rock section (if used) beneath interior slab-on-grade floor could be increased or replaced with Class 2 aggregate base compacted to at least 95 percent of the maximum dry density as determined by ASTM D1557.

Additional moisture protection for office and warehouse interior slabs may be provided by placing a plastic water vapor retarder (at least 10-mils thick) directly over the crushed rock. The plastic water vapor retarder should meet or exceed the minimum specifications as outlined in ASTM E1745. Consideration should be given to using a thicker, higher quality membrane for additional moisture protection such as a 15-mil thick Stego vapor barrier or other product. The membrane should be installed so that there are no holes or uncovered areas. All seams should overlap and be sealed with manufacturer-approved tape, continuous at the laps to create vapor tight conditions. All perimeter edges of the membrane, such as pipe penetrations, interior and exterior footings, joints, etc., should be sealed or caulked per manufacturer's recommendations. An optional, think layer of clean sand above the membrane is acceptable, as an aid to curing of the slab concrete.

Floor slab construction practice over the past 25 years or more has included placement of a thin layer of sand over the vapor retarder membrane. The intent of the sand is to aid in the proper curing of the slab concrete. However, recent debate over excessive moisture vapor emissions from floor slabs includes concern of water trapped within the sand. As a

consequence, we consider use of the sand layer as optional. The concrete curing benefits should be weighed against efforts to reduce slab moisture vapor transmission.

The recommendations presented above should mitigate significant soils-related cracking of the slab-on-grade floors. Also important to the performance and appearance of a Portland cement concrete slab is the quality of the concrete, the workmanship of the concrete contractor, the curing techniques utilized and spacing of control joints.

Floor Slab Moisture Penetration Resistance

It is considered likely that floor slab subgrade soils will become wet to near-saturated at some time during the life of the structures. This is a certainty when slabs are constructed during the wet seasons or when constantly wet ground or poor drainage conditions exist adjacent to structures. For this reason, it should be assumed that all slabs in occupied areas, as well as those intended for moisture-sensitive floor coverings or materials, require protection against moisture or moisture vapor penetration. Standard practice includes the gravel and water vapor retarder as suggested above. However, the gravel and plastic membrane offer only a limited, first-line of defense against soil-related moisture. Recommendations contained in this report concerning foundation and floor slab design are presented as *minimum* requirements, only from the geotechnical engineering standpoint.

It is emphasized that the use of sub-slab crushed rock and water vapor retarder will not "moisture proof" the slab, nor does it assure that slab moisture transmission levels will be low enough to prevent damage to floor coverings or other building components. If increased protection against moisture vapor penetration of slabs is desired, a concrete moisture protection specialist should be consulted. The architect and design team should consider all available measures for slab moisture protection. It is commonly accepted that maintaining the lowest practical water-cement ratio in the slab concrete is an effective way to help reduce future moisture vapor penetration of the completed slabs.

Exterior Flatwork (Non-Pavement Areas)

Subgrades to receive exterior concrete flatwork should consist of 15 to 24 inches (depending on expected level of performance) of non–expansive, imported soils, moisture conditioned to at least the optimum moisture content and uniformly compacted to not less than 90 percent relative compaction, prior to the placement of the concrete. Alternatively, the upper 15 to 24 inches of subgrades may be lime-treated, as recommended. *Proper moisture*

conditioning of the subgrade soils is considered essential to the performance of exterior flatwork. Expansion joints should be provided to allow for minor vertical movement of the flatwork and the soil grades adjacent to flatwork should not be allowed to dry or desiccate to help reduce seasonal movements and cracking. Practices recommended by the Portland Cement Association (PCA) and the American Concrete Institute (ACI) for proper placement and curing of concrete should be followed during exterior concrete flatwork construction.

The architect or structural engineer should determine the final thickness, strength, reinforcement, and joint spacing of exterior slab-on-grade concrete; however, we offer the following suggested minimum guidelines. Exterior flatwork should be at least four inches thick and be constructed independent of perimeter building foundations and isolated column foundations by the placement of a layer of felt material between the flatwork and the foundation. Reinforcement should consist of steel reinforcing bars, placed mid-depth of the slab. Edges thickened to at least twice the slab thickness may be constructed along the perimeter of exterior slabs where intermittent light loading is expected over the slabs. *Slabs receiving wheeled traffic should be designed as pavements and be appropriately thickened and reinforced.* For increased support and performance, the exterior slabs may be underlain by a minimum four inches of Class 2 aggregate compacted to 95 percent relative compaction.

RETAINING WALLS & LOADING DOCKS

Retaining walls that are essentially fixed at the top (unable to rotate about their bases) should be capable of resisting "active" lateral soil pressures equal to an equivalent fluid pressure of 60 psf per foot of retained soil. Rigid or restrained retaining walls that are not allowed to yield at the top should be capable of resisting "at-rest" lateral soil pressures equal to an equivalent fluid pressure of 80 psf per foot of retained soil. These soil pressures assume a horizontal grade behind the walls and that the walls will be fully drained so that hydrostatic pressures will not develop behind the wall.

Retaining wall foundations may be designed in accordance with the criteria contained in the FOUNDATION DESIGN section of this report. Resistance to lateral foundation displacement for retaining wall systems may be computed using the values provided in the FOUNDATION DESIGN section of this report, only if the bottom of the foundation is at least five feet horizontally from the face of any fill slope.

Retaining walls should be fully drained to prevent the build-up of hydrostatic forces behind the wall. Drainage may be accomplished by the use of weep holes or perforated PVC pipe

(as applicable) placed near the base of the wall and sloped to a discharge point at a gradient of at least one percent. The perforated pipe should be completely surrounded by a drainage blanket composed of State of California Class 2 permeable material (*Caltrans Standard Specifications*, Section 68-2.02F(3)). The drainage blanket should be at least one foot in width and should extend to within one foot of the top of the wall. The upper foot of wall backfill should be composed of compacted native soils. Alternatively, ½- to ¾-inch open-graded crushed rock may be used in place of the Class 2 permeable drain rock, provided that the rock and the perforated pipe are completely enveloped in a nonwoven geotextile fabric that is approved by our office.

Structural backfill materials for retaining walls (other than the drainage layer) should be approved native soils that are free of significant quantities of rubbish, rubble and organics. Structural backfill should be placed in lifts not exceeding 12 inches in compacted thickness, and should be mechanically compacted to not less than 90 percent relative compaction, based on ASTM D1557. The upper six inches of backfill in pavement areas should be mechanically compacted to not less than 95 percent relative compaction.

If loading dock slabs will extend below existing grade, they may be affected by seasonal variations in groundwater levels and subject to buoyant forces and/or flooding. Occasional seasonal flooding of the depressed docks may be possible. The slabs may be either designed to resist groundwater rising to an assumed level of three feet below existing grades (i.e. grades existing at the time of our field work), or relief valves could be provided in the slab to relieve water pressure and allow flooding of the dock.

Site Drainage

Final site grading should be accomplished to provide positive drainage of surface water away from the buildings and prevent ponding of water adjacent to foundations, slabs or pavements. The grade adjacent to structures should be sloped away from the foundations at a minimum two percent slope for a distance of at least five feet, where possible. Roof gutter downspouts and surface drains should be connected to non-perforated rigid piping directed towards appropriate drainage facilities, or the downspouts should drain onto paved or concrete surfaces sloping away from the buildings. Landscape berms, if planned, should be constructed in such a manner as to promote drainage away from the building.

PAVEMENT DESIGN

The following pavement sections have been calculated based on anticipated traffic indices (TI's), results of R-value testing, and the procedures contained within Chapters 600 to 670 of the *California Highway Design Manual, Sixth Edition*. The project civil engineer should determine the appropriate traffic index based on anticipated traffic conditions. We can provide additional section thicknesses for other TI's, as needed.

Table 3 –Pavement Design Alternatives

Traffic Index (TI)	Untreated Clay Subgrades R-value = 5		Lime-Treated Subgrades (a) R-value = 50	
	Type B Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Type B Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)
5.0	2½	11	2½	4
	3*	10	3*	4
6.0	3	15	3	5
	3½*	14	3½*	4
7.0	3	17	3	7
	4*	15	4*	5
8.0	4	20	4	7
	5*	18	5*	6
9.0	4	23	4	9
	5½*	21	5½*	7

a) Lime-treated subgrade construction as recommended in the LIME-TREATMENT ALTERNATIVE section of this report, should be at least 15 inches thick and possess a minimum R-value of 50 when tested in accordance with California Test 301, and a minimum unconfined compressive strength of 300 psi when tested in accordance with California Test 373.

* = Asphalt concrete thickness includes the Caltrans Safety Factor

The Caltrans Design method uses traffic indices to account for vehicle loads, frequency, and design life. A design life of 20 years is commonly used for commercial pavements. We understand that drive aisles with heavy wheel loading are expected to be assessed by about 60 trucks per week. Assuming a 20-year design life, the trucks are fully loaded, and that trucks travel separate lanes to enter and leave the buildings, our calculations indicate Traffic

Index of 6.5 would be appropriate for driveways carrying all the truck traffic. Traffic index of 4.5 would be appropriate for pavements used only by automobiles. Standard Buzz Oates structural pavement sections for traffic Indices of 4.5, 6.5, and 8.0 are shown in Table 4.

Table 4 – Pavement Design Alternatives (Buzz Oates Standard)

Traffic Index (TI)	Intended Use	Type B Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Lime-Treated Subgrades (inches)
4.5	Automobile Parking	2½	3	12
6.5	Drive Aisle (35 Five Axle Semi-Trucks Per Week)	3	3	12
8.0	Drive Aisle (95 Five Axle Semi-Trucks Per Week)	4	7	12

If chemical treatment alternates are selected for use at this project, additional testing on the lab-mixed samples prior to construction, and field-mixed samples during construction, should be performed to verify that the design parameters (R-value of 50+ and minimum UCC of 300 psi) are achieved in the field. Chemical treatment of the subgrades should be accomplished after underground utility construction is completed.

We emphasize that the performance of pavements is critically dependent upon uniform and adequate compaction of the soil subgrade, as well as all engineered fill and utility trench backfill within the limits of the pavements. Final pavement subgrade preparation, i.e. scarification, moisture conditioning and compaction, should be performed after underground utility construction is completed, just prior to aggregate base placement.

Pavement subgrade soils should be constructed and compacted as recommended in this report and maintained in an optimum moisture condition until covered and protected by aggregate base. Soil subgrades allowed to dry, desiccate or become disturbed must be moisture conditioned and recompacted prior to placement of aggregate base.

Pavement subgrades should be proof-rolled and must be stable under construction traffic prior to placement of aggregate base. All Class 2 aggregate base should be compacted to at

least 95 percent of the ASTM D1557 maximum dry density and must be stable prior to paving.

Efficient drainage of all surface water to avoid infiltration and saturation of the supporting aggregate base and subgrade soils is important to pavement performance. We suggest considering the use of full-depth curbs where pavements abut landscaped areas to serve as a cut-off against water migrating into the pavement base and subgrade materials. Weep holes also could be provided at drop inlets, located at or slightly below the subgrade-base interface, to allow accumulated water to drain from beneath the pavements.

Earthwork construction within the limits of the pavements should be performed in accordance with the recommendation contained within this report. Materials used for pavement construction should conform to the appropriate sections of the Caltrans *Standard Specifications* and applicable City of Vacaville *Improvement Standards*, latest editions.

Portland Cement Concrete Pavements

We anticipate the loading dock areas will be paved using a Portland cement concrete (PCC) pavement section since those areas will be subjected to concentrated heavy wheel loadings. The number of trucks and number and type of forklifts, traffic frequencies and loadings are not yet known. When more information is available we should review the preliminary section thicknesses to determine their applicability. For preliminary purposes, we recommend the following minimum Portland Cement concrete thicknesses for treated and untreated subgrades.

Portland Cement Concrete Thicknesses		
Subgrade Condition	Class 2 Aggregate Base (inches)	Portland Cement Concrete (inches)
Untreated	12	7
Lime-treated	6	7

We recommend PCC slabs be constructed with thickened edges. The thickened edge should be constructed and tapered over a minimum distance of 48 inches in accordance with American Concrete Institute (ACI) 330R design details. Reinforcing for crack control, if desired, should consist of *at least* No. 4 reinforcing bars placed on maximum 18-inch centers each way throughout the slab. Reinforcement must be located at mid-slab depth to be

effective. Joint spacing and details should be determined by the project engineer and should conform with the current PCA or ACI guidelines. Portland cement concrete should achieve a *minimum* compressive strength of *at least* 3500 pounds per square inch at 28 days.

CONSTRUCTION TESTING AND OBSERVATION

Site preparation should be accomplished in accordance with the recommendations of this report and the attached *Guide Earthwork Specifications*. Representatives of Mid Pacific Engineering, Inc. (MPE) must be present during site clearing, site preparation and all grading operations to observe and test the fill to verify compliance with our recommendations and the job specifications. These services are beyond the scope of work authorized for this investigation.

In the event that MPE is not retained to provide geotechnical engineering observation and testing services during construction, the Geotechnical Engineer retained to provide this service should indicate in writing that they agree with the recommendations of this report, prepare supplemental recommendations as necessary, and prepare the CBC 1803.5.7 report.

A final report by the "Geotechnical Engineer" should be prepared upon completion of the project indicating compliance with or deviations from this report and the project plans and specifications. Please be aware that the title Geotechnical Engineer is restricted in the State of California to a Civil Engineer authorized by the State of California to use the title "Geotechnical Engineer."

ADDITIONAL SERVICES

We recommend Mid Pacific Engineering, Inc., review the final plans and specifications to determine if the intent of our recommendations has been implemented in those documents.

LIMITATIONS

Our recommendations are based upon the information provided regarding the proposed project, combined with our analysis of site conditions revealed by the field exploration and laboratory testing programs. We have used our best engineering judgment based upon the information provided and the data generated from our investigation. This report has been prepared in substantial compliance with generally accepted geotechnical engineering

practices that exist in the area of the project at the time the report was prepared. No warranty, either express or implied, is provided.

If the proposed construction is modified or re-sited; or, if it is found during construction that subsurface conditions differ from those we encountered at our boring locations, we should be afforded the opportunity to review the new information or changed conditions to determine if our conclusions and recommendations must be modified.

We emphasize that this report is applicable only to the proposed construction and the investigated site and should not be utilized for construction on any other site. The conclusions and recommendations are considered valid for a period of two years after the date of this report. If design and construction begin after two years, the report should be reviewed and updated as necessary by a Geotechnical Engineer.

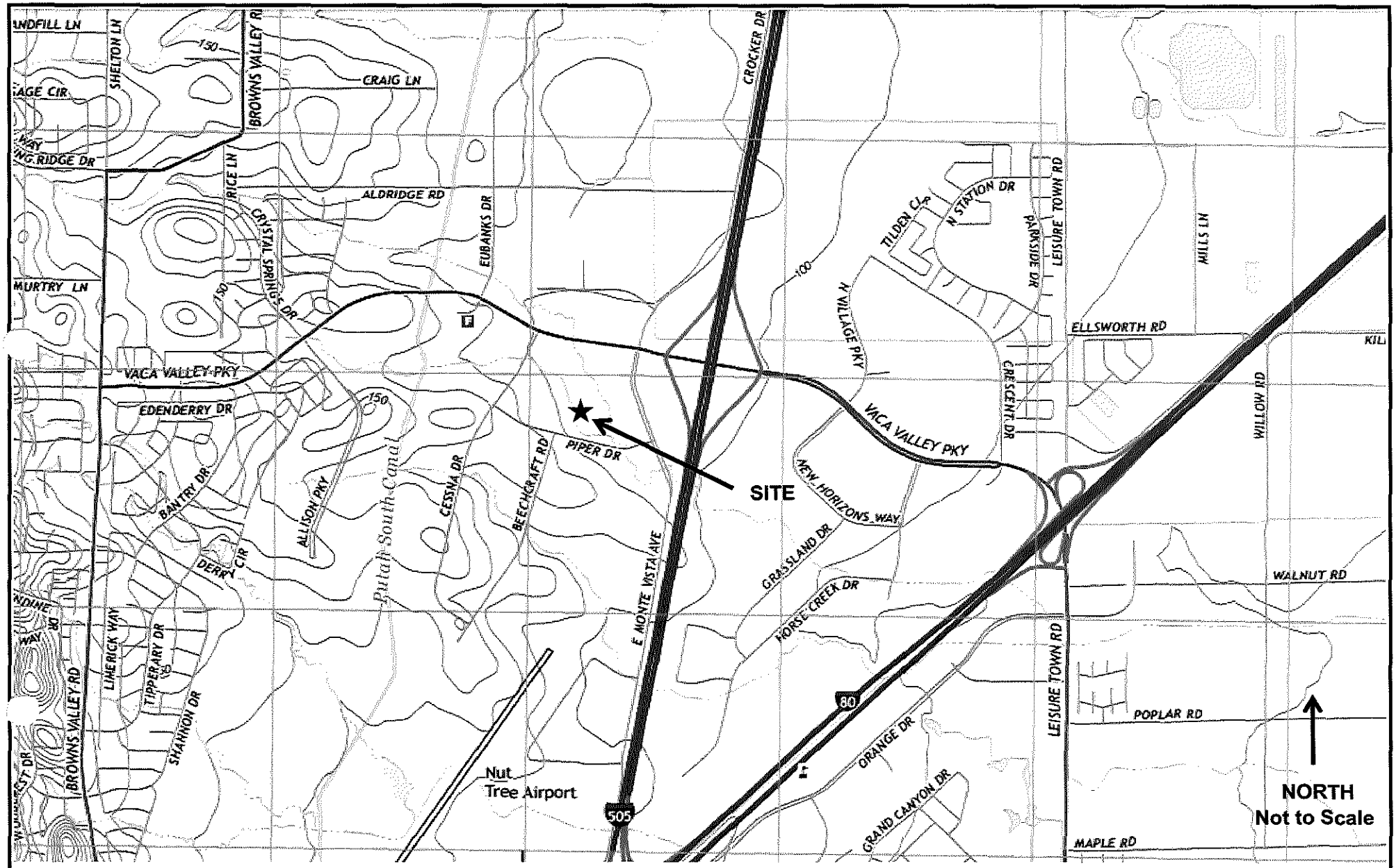
Mid Pacific Engineering, Inc.

Santiago Carrillo
Staff Engineer/EIT

Todd G. Kamisky
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
TODD G. KAMISKY
No. 2567
Exp. 12/31/19
GEOTECHNICAL
STATE OF CALIFORNIA

FIGURES



NOTES: Adapted from the USGS *Allendale Quadrangle, California*, 7.5-Minute Series, 2015

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VICINITY MAP

CESSNA BEECHCRAFT BUILDINGS

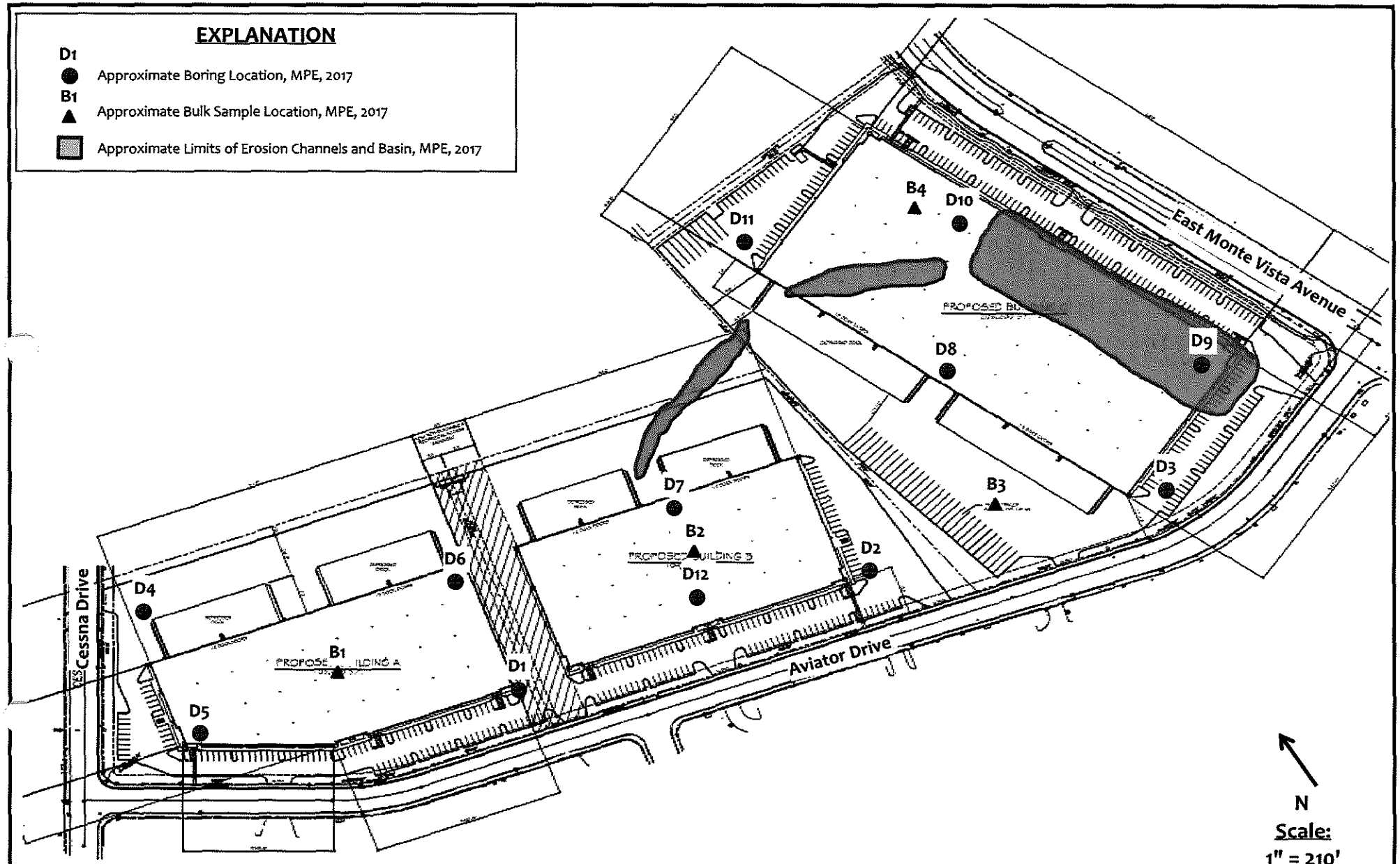
Cessna Drive and Aviator Drive

Vacaville, California

FIGURE 1

Date: 12/17

MPE No. 03569-01



NOTES: Adapted from the Undated, *Site Plan, Sheet A-1*, prepared by Leo McGlade & Associates, Inc.

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SITE PLAN

CESSNA BEECHCRAFT BUILDINGS

Cessna Drive and Aviator Drive
Vacaville, California

FIGURE 2

Date: 12/17

MPE No. 03569-01

Project: Cessna Beechcraft Buildings

Project Location: Cessna Drive and Aviator, Vacaville, California

MPE Number: 03569-01

LOG OF SOIL BORING D1

Sheet 1 of 1

Date(s) Drilled	11/9/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	V&W Drilling	Total Depth of Drill Hole, feet	16½ Feet
Drill Rig Type	CME-55	Diameter(s) of Hole, inches	6 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth [Elevation], feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Soil Cuttings

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Brown, very moist, soft, slightly sandy, silty clay with gravels (CL)						
			light brown/tan, medium stiff		D1-1	13	16.1	111	UCC 1.0 tsf
			Dark brown, moist, loose, silty, clayey fine sand (SC)						
	5		Brown, moist, stiff, silty clay (CL)		D1-2	24			
			Light brown, slightly moist, medium dense, slightly clayey, fine sandy silt (ML)						
	10		light reddish brown, very dense, poorly cemented, with clay		D1-3	50/6"			
	15		moist, moderately cemented		D1-4	50/6"			
	20								
	25								

MPE *Mid Pacific Engineering, Inc.*

FIGURE 3

Project: Cessna Beechcraft Buildings

Project Location: Cessna Drive and Aviator, Vacaville, California

MPE Number: 03569-01

LOG OF SOIL BORING D2

Sheet 1 of 1

Date(s) Drilled	11/9/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	V&W Drilling	Total Depth of Drill Hole, feet	10 Feet
Drill Rig Type	CME-55	Diameter(s) of Hole, inches	6 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth (Elevation), feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Soil Cuttings

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Light brown/Brown, very moist, stiff, silty, sandy clay (CL)						
					D2-1	15			
			Light brown, moist, medium dense, silty, clayey fine sand (SC)						
	5				D2-2	25	19.5	90	
			Brown/Light brown, moist, stiff, sandy clay (CL)						
					D2-3	18			
	10								
	15								
	20								
	25								

Project: Cessna Beechcraft Buildings	LOG OF SOIL BORING D3
Project Location: Cessna Drive and Aviator, Vacaville, California	
MPE Number: 03569-01	Sheet 1 of 1

Date(s) Drilled	11/9/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	V&W Drilling	Total Depth of Drill Hole, feet	15½ Feet
Drill Rig Type	CME-55	Diameter(s) of Hole, inches	6 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth (Elevation), feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Soil Cuttings

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Brown, very moist, silty, sandy clay/clayey sand (CL/SC)						
			Light brown/Tan, slightly moist, medium dense, moderately cemented sandy silt (ML)		D3-1	27			
	5		Dark brown, moist, very stiff, silty clay (CL)		D3-2	24			
			Brown, moist, stiff, slightly fine sandy, clayey silt (ML)						
			grayish brown						
	10		well cemented, hard		D3-3	50/6"			
			Grayish/Reddish brown, moist, medium dense, clayey fine to medium sand (SC)						
	15				D3-4	35	18.4	98	
	20								
	25								

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FIGURE 5

Project: Cessna Beechcraft Buildings	LOG OF SOIL BORING D4
Project Location: Cessna Drive and Aviator, Vacaville, California	
MPE Number: 03569-01	Sheet 1 of 1

Date(s) Drilled	11/9/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	V&W Drilling	Total Depth of Drill Hole, feet	11 Feet
Drill Rig Type	CME-55	Diameter(s) of Hole, Inches	6 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth [Elevation], feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Soil Cuttings

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Brown, very moist, sandy clay with surface gravels (CL)						
			Light brown/Tan, slightly moist, very hard, slightly clayey, silt (ML)						
					D4-1	50/6"			
	5		increase in clay content						
			moderately cemented, hard, with clay		D4-2	40	19.9	89	
	10		reddish brown, very hard, well cemented		D4-3	50/1"			
	15								
	20								
	25								

Project: Cessna Beechcraft Buildings	LOG OF SOIL BORING D5
Project Location: Cessna Drive and Aviator, Vacaville, California	
MPE Number: 03569-01	Sheet 1 of 1

Date(s) Drilled	11/16/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	Hillside Drilling	Total Depth of Drill Hole, feet	26 Feet
Drill Rig Type	Mobile B-24	Diameter(s) of Hole, inches	4 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth [Elevation], feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Neat Cement

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Light brown, very moist, slightly fine sandy, silty clay with surface gravels (CL)						
			Light brown/Reddish brown, moist, dense, moderately cemented, fine sandy silt (ML)		D5-1	48	21.9	99	UCC 1.3 tsf
	5		clayey, medium dense		D5-2	39			
			Brown, moist, medium dense, clayey fine to medium sand (SC)						
			Orangish brown, moist, dense, slightly clayey fine sandy silt/silty fine sand (SM/ML)						
	10				D5-3	46	18.5	102	
			Brown/Gray, moist, very hard, slightly clayey silt (ML)						
	15				D5-4	50/6"			
	20		fine sandy		D5-5	50/6"			
			Brown, moist, dense, clayey fine to coarse sand with gravels (SC)						
	25		very dense		D5-6	50/6"			

Project: Cessna Beechcraft Buildings	LOG OF SOIL BORING D6
Project Location: Cessna Drive and Aviator, Vacaville, California	
MPE Number: 03569-01	Sheet 1 of 1

Date(s) Drilled	11/16/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	Hillside Drilling	Total Depth of Drill Hole, feet	19½ Feet
Drill Rig Type	Mobile B-24	Diameter(s) of Hole, inches	4 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth (Elevation), feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Neat Cement

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Brown, very moist, soft, silty clay (CL)						
			light brown, stiff, fine sandy		D6-1	16			
			light brown, very stiff, fine to medium sandy		D6-2	20	19.8	104	
	5								
			Dark gray/Blackish, moist, slightly clayey, slightly sandy, silt (ML)						
			stiff		D6-3	14			
	10								
			Brown, moist, very stiff, sandy clay (CL)						
					D6-4	36			
	15								
			Brown/Light brown, moist, very hard, clayey silt (ML)		D6-5	50/6"			
	20								
	25								

Project: Cessna Beechcraft Buildings	LOG OF SOIL BORING D7
Project Location: Cessna Drive and Aviator, Vacaville, California	
MPE Number: 03569-01	Sheet 1 of 1

Date(s) Drilled	11/17/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	Hillside Drilling	Total Depth of Drill Hole, feet	11½ Feet
Drill Rig Type	Mobile B-24	Diameter(s) of Hole, inches	4 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth [Elevation], feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Soil Cuttings
Remarks					

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Light brown, moist, stiff, clayey silt (ML)						
			very stiff		D7-1	28			
			Brown, moist, medium stiff, silty clay (CL)						
	5		stiff		D7-2	18			
	10		Gray, moist, loose, slightly clayey, fine sandy silt (ML)		D7-3	6			
	15								
	20								
	25								

Project: Cessna Beechcraft Buildings	LOG OF SOIL BORING D8
Project Location: Cessna Drive and Aviator, Vacaville, California	
MPE Number: 03569-01	Sheet 1 of 1

Date(s) Drilled	11/17/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	Hillside Drilling	Total Depth of Drill Hole, feet	26½ Feet
Drill Rig Type	Mobile B-24	Diameter(s) of Hole, inches	4 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth [Elevation], feet	20 Feet	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Neat Cement

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Brown, moist, clayey, sandy silt (ML)						
			Brown, moist, stiff, silty clay with gravels (CL)						
					D8-1	12			
	5		Grayish brown/Gray, moist, medium dense, slightly clayey, sandy silt (ML)		D8-2	14			
			clayey						
			Gray, moist, silty clay (CL)						
	10		grayish brown, very stiff, sandy, orange mottling		D8-3	26			
			Tan/Light reddish brown, moist, sandy, clayey silt/silty clay (ML/CL)						
	15		very stiff		D8-4	32			
	20		Brown, wet, medium dense, fine sandy silt (ML)		D8-5	34			<#200 23.9%
	25		dense		D8-6	58			

Project: Cessna Beechcraft Buildings

Project Location: Cessna Drive and Aviator, Vacaville, California

MPE Number: 03569-01

LOG OF SOIL BORING D9

Sheet 1 of 1

Date(s) Drilled	1/17/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	Hillside Drilling	Total Depth of Drill Hole, feet	25 Feet
Drill Rig Type	Mobile B-24	Diameter(s) of Hole, Inches	4 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth [Elevation], feet	20 Feet	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Neat Cement

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Brown, moist, sandy, silty clay (CL)						
			Light brown, slightly moist, dense, silty fine sand (SM)		D9-1	38			
			Brown/Dark brown, moist, silty clay (CL)						
			stiff		D9-2	16	17.5	105	UCC 2.5 tsf
	5								
			Brown, moist, clayey, fine sandy silt (ML)						
			medium dense		D9-3	30			
	10								
			gravels						
			Light brown, moist, hard, silty sandy clay with gravels (CL)						
					D9-4	46	18.5	103	
	15								
			Light brown, moist, dense, clayey, silty fine to medium sand (SM)						
					D9-5	45			
	20		▽ wet						
			Grayish brown, wet, clayey silt (ML)						
			very stiff		D9-6	30			
	25								

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FIGURE 11

Project: Cessna Beechcraft Buildings

Project Location: Cessna Drive and Aviator, Vacaville, California

MPE Number: 03569-01

LOG OF SOIL BORING D10

Sheet 1 of 1

Date(s) Drilled	11/17/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	Hillside Drilling	Total Depth of Drill Hole, feet	10 Feet
Drill Rig Type	Mobile B-24	Diameter(s) of Hole, inches	4 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth (Elevation), feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Soil Cuttings

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Brown, moist, stiff, sandy, silty clay with surface gravels (CL)						
			light brown, sandy		D10-1	13			
					D10-2	16	20.6	96	
	5		dark brown/blackish, stiff, less sandy						
			Light brown, moist, medium dense, poorly graded fine sand with silt (SP-SM)						
					D10-3	20			
	10								
	15								
	20								
	25								

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FIGURE 12

Project: Cessna Beechcraft Buildings

Project Location: Cessna Drive and Aviator, Vacaville, California

MPE Number: 03569-01

LOG OF SOIL BORING D11

Sheet 1 of 1

Date(s) Drilled	11/17/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	Hillside Drilling	Total Depth of Drill Hole, feet	10 Feet
Drill Rig Type	Mobile B-24	Diameter(s) of Hole, inches	4 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth [Elevation], feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Soil Cuttings

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Light brown, moist, sandy clay (CL)						
			stiff		D11-1	17			
			brown, very stiff, pieces of cemented silt		D11-2	22	18.8	103	UCC 1.6 tsf
	5								
			gray						
			grayish brown		D11-3	29			
	10								
	15								
	20								
	25								

MPE Mid Pacific Engineering, Inc.

FIGURE 13

Project: Cessna Beechcraft Buildings

Project Location: Cessna Drive and Aviator, Vacaville, California

MPE Number: 03569-01

LOG OF SOIL BORING D12

Sheet 1 of 1

Date(s) Drilled	11/17/2017	Logged By	SC	Checked By	TGK
Drilling Method	Solid Flight Augers	Drilling Contractor	Hillside Drilling	Total Depth of Drill Hole, feet	10 Feet
Drill Rig Type	Mobile B-24	Diameter(s) of Hole, inches	4 Inches	Approx. Surface Elevation, ft MSL	+110 Feet
Groundwater Depth (Elevation), feet	Not Encountered	Sampling Method(s)	140 Lb Hammer/30" Drop	Drill Hole Backfill	Soil Cuttings

Remarks

ELEVATION, feet	DEPTH, feet	GRAPHIC LOG	ENGINEERING CLASSIFICATION AND DESCRIPTION	SAMPLE DATA: SAMPLE	SAMPLE NUMBER	BLOWS PER FOOT	TEST DATA: MOISTURE CONTENT, %	DRY UNIT WEIGHT, pcf	ADDITIONAL TESTS
			Brown, moist, silty clay (CL)						
			stiff, sandy		D12-1	13			
			very stiff		D12-2	20			
	5								
			Dark gray/Black, moist, medium dense, slightly clayey, sandy silt (ML)						
			bluish/brown		D12-3	18	15.4	108	
	10								
	15								
	20								
	25								

MPE Mid Pacific Engineering, Inc.

FIGURE 14

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		SYMBOL	CODE	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of soil > no. 200 sieve size)	GRAVELS (More than 50% of coarse fraction > no. 4 sieve size)	GW		Well graded gravels or gravel - sand mixtures, little or no fines
		GP		Poorly graded gravels or gravel - sand mixtures, little or no fines
		GM		Silty gravels, gravel - sand - silt mixtures
		GC		Clayey gravels, gravel - sand - silt mixtures
	SANDS (50% or more of coarse fraction < no. 4 sieve size)	SW		Well graded sands or gravelly sands, little or no fines
		SP		Poorly graded sands or gravelly sands, little or no fines
		SM		Silty sands, sand - silt mixtures
		SC		Clayey sands, sand clay mixtures
FINE GRAINED SOILS (More than 50% of soil < no. 200 sieve size)	SILTS & CLAYS LL< 50	ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		CL		Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays
		OL		Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS LL ≥ 50	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH		Inorganic clays of high plasticity, fat clays
		OH		Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS		Pt		Peat and other highly organic soils
ROCK		RX		Rocks, weathered to fresh
FILL		FILL		Artificially placed fill material

OTHER SYMBOLS

= Drive Sample: 2-1/2" O.D. Modified California sampler

= Hand Driven Sample

=SPT Sampler

= Initial Water Level

= Final Water Level

= Estimated or gradational material change line

= Observed material change line

Laboratory Tests

PI = Plasticity Index
EI =Expansive Index
UCC = Unconfined Compression Test
TR = Triaxial Compression Test
GR = Gradation Analysis (Sieve)
K = Permeability Test

GRAIN SIZE CLASSIFICATION

CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL coarse (c) fine (f)	3" to No. 4 3" to 3/4" 3/4" to No. 4	76.2 to 4.76 76.2 to 19.1 19.1 to 4.76
SAND coarse (c) Medium (m) fine (f)	No. 4 to No. 200 No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200	4.76 to 0.074 4.76 to 2.00 2.00 to 0.420 0.420 to 0.074
SILT & CLAY	Below No. 200	Below 0.074

MPE
Mid Pacific Engineering, Inc.

UNIFIED SOIL CLASSIFICATION SYSTEM
CESSNA BEECHCRAFT BUILDINGS
Cessna Drive and Aviator Drive
Vacaville, California

FIGURE 15
Date: 12/17
MPE No. 03569-01

APPENDICES

APPENDIX A

APPENDIX A

A. GENERAL INFORMATION

The performance of a geotechnical engineering investigation for the proposed warehouses to be constructed east of Cessna Drive and north of Aviator Drive in Vacaville, California, was authorized by Jason Gray on October 25, 2017. Authorization was for an investigation as described in our proposal dated October 17, 2017, sent to our client, Buzz Oates, whose mailing address is 555 Capitol Mall, Ninth Floor, Sacramento, California 95814.

In performing this investigation, we made reference to the Undated, *Site Plan, Sheet A1*, prepared by McGlade and Associates, Inc. of Sacramento, California.

B. FIELD EXPLORATION

On November 9, 2017, four soil borings were drilled at the approximate locations indicated on Figure 2, utilizing a CME-55 truck-mounted drill rig equipped with six-inch diameter, solid-stem flight augers, to maximum depths of approximately 10 to 16½ feet below existing site grades.

On November 16 and 17, 2017, eight soils borings were drilled at the approximate locations indicated on Figure 2, utilizing a Mobile B-24 track-mounted drill rig equipped with four-inch diameter, solid-stem flight augers, to maximum depths of approximately 10 to 26½ feet below existing site grades.

At various intervals, relatively undisturbed soil samples were recovered with a 2½-inch O.D., 2-inch I.D. Modified California sampler (ASTM D3550), driven by a 140-pound hammer freely falling 30 inches. The number of blows of the hammer required to drive the 18-inch long sampler each 6-inch interval was recorded with the sum of the blows required to drive the sampler the lower 12-inch interval, or portion thereof, being designated the penetration resistance or "blow count" for that particular drive.

The samples obtained with the modified California sampler were retained in 2-inch diameter by 6-inch long, thin-walled brass tubes contained within the sampler. Immediately after recovery, the field engineer visually classified the soil in the tubes

and the ends of the tubes were sealed to preserve the natural moisture contents. Disturbed bulk samples of the surface materials also were obtained at various locations and depths. Soil samples were taken to our laboratory for additional classification (ASTM D2488) and selection of samples for testing.

The Logs of Soil Borings, Figures 3 through 14, contain descriptions of the soils encountered in each boring. A Boring Legend explaining the Unified Soil Classification System and the symbols used on the logs is contained on Figure 15.

C. LABORATORY TESTING

Selected undisturbed samples of the soils were tested to determine dry unit weight (ASTM D2937), natural moisture content (ASTM D2216), and unconfined compressive Strength (ASTM D2166). The results of these tests are included on the boring logs at the depth each sample was obtained.

Three samples of the near-surface soils were subjected to Expansion Index testing (ASTM D4829). The results of these tests are presented on Figures A1 through A3.

One representative bulk sample of the anticipated pavement subgrade soils was treated with four percent (4%) hi-calcium quicklime by dry weight of soils, and was subjected to Resistance-value ("R") testing in accordance with California Test (CT) 301. Results of the R-value testing, which were used in the pavement design, are contained on Figure A4.

Three samples of the near-surface soils were submitted to Sunland Analytical in Rancho Cordova, California, for corrosivity testing in accordance with No. 643 (Modified Small Cell), CT 532, CT 422, and CT 417. The analytical results are presented in the text of the report.

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EXPANSION INDEX TEST RESULTS
(ASTM D4829-03)
(UBC 18-2)

Material Description: Tan, clay with sand (CL)
Location: B1 (1 to 3 feet)

Sample Number	Pre-Test Moisture (%)	Post-Test Moisture (%)	Dry Density (pcf)	Expansion Index
B1	12.1	27.8	100	88

CLASSIFICATION OF EXPANSIVE SOIL

EXPANSION INDEX	POTENTIAL EXPANSION
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
Above 130	Very High

MPE	**EXPANSION INDEX TEST RESULTS** **CESSNA BEECHCRAFT BUILDINGS** Cessna Drive and Aviator Drive Vacaville, California	**FIGURE A1** Date: 12/17 MPE No. 03569-01

EXPANSION INDEX TEST RESULTS
(ASTM D4829-03)
(UBC 18-2)

Material Description: Light brown, clay with sand (CL)
Location: B4 (1 to 3 feet)

Sample Number	Pre-Test Moisture (%)	Post-Test Moisture (%)	Dry Density (pcf)	Expansion Index
B4	11.5	30.0	98	91

CLASSIFICATION OF EXPANSIVE SOIL

EXPANSION INDEX	POTENTIAL EXPANSION
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
Above 130	Very High

MPE	**EXPANSION INDEX TEST RESULTS** **CESSNA BEECHCRAFT BUILDINGS** Cessna Drive and Aviator Drive Vacaville, California	**FIGURE A2** Date: 12/17 MPE No. 03569-01

EXPANSION INDEX TEST RESULTS
(ASTM D4829-03)
(UBC 18-2)

Material Description: Light brown, clay (CL)
Location: B5 (1 to 3 feet)

Sample Number	Pre-Test Moisture (%)	Post-Test Moisture (%)	Dry Density (pcf)	Expansion Index
B5	13.1	31.0	97	98

CLASSIFICATION OF EXPANSIVE SOIL

EXPANSION INDEX	POTENTIAL EXPANSION
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
Above 130	Very High

MPE	**EXPANSION INDEX TEST RESULTS** **CESSNA BEECHCRAFT BUILDINGS** Cessna Drive and Aviator Drive Vacaville, California	**FIGURE A3** Date: 12/17 MPE No. 03569-01

RESISTANCE VALUE TEST RESULTS
(California Test 301)

Material Description: Yellowish brown, silty clay (CL), treated with 4% quicklime

Location: B3 (1'– 3')

Specimen No.	Dry Unit Weight (pcf)	Moisture at Compaction (%)	Exudation Pressure (psi)	Expansion Pressure (psi)	R-Value
1	101	22.5	236	0.03	51
2	102	21.5	294	0.12	64
3	106	20.5	362	0.09	70

R-value at 300 psi exudation pressure = 64

MPE	**RESISTANCE VALUE TEST RESULTS** **CESSNA BEECHCRAFT BUILDINGS** Cessna Drive and Aviator Drive Vacaville, California	**FIGURE A4** Date: 12/17 MPE No. 03569-01

APPENDIX B

APPENDIX B

GUIDE EARTHWORK SPECIFICATIONS

CESSNA BEECHCRAFT BUILDINGS

Cessna Drive and Aviator Drive

Vacaville, California

MPE No. 03569-01

PART 1: GENERAL

1.1 SCOPE

A. General Description

This item shall include clearing of all surface and subsurface structures including but not limited to vegetation, trees, concrete drainage pipe, polyvinyl chloride pipe, concrete structures, drainage rock, underground utilities (including irrigation lines) to be relocated or abandoned including trench backfill, demolition, debris, rubble, deleterious material, and any other items designated for removal; preparation of surfaces to be filled, filling, spreading, compaction, observation and testing of the fill; and all subsidiary work necessary to complete the grading of the building area to conform with the lines, grades and slopes as shown on the accepted Drawings.

B. Related Work Specified Elsewhere

1. Trenching and backfilling for sanitary sewer system: Section _____.
2. Trenching and backfilling for storm drain system: Section _____.
3. Trenching and backfilling for underground water, natural gas, and electric supplies: Section _____.

C. Geotechnical Engineer

Where specific reference is made to "Geotechnical Engineer" this designation shall be understood to include either him or his representative.

1.2 PROTECTION

A. Adequate protection measures shall be provided to protect workers and passers-by at the site. Streets and adjacent property shall be fully protected throughout the operations.

B. In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for working conditions at the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and shall not be limited to normal working hours.

C. Any construction review of the Contractor's performance conducted by the Geotechnical Engineer is not intended to include review of the adequacy of the Contractor's safety measures, in, on or near the construction site.

D. Adjacent streets and sidewalks shall be kept free of mud, dirt or similar nuisances resulting from earthwork operations.

E. Surface drainage provisions shall be made during the period of construction in a manner to avoid creating a nuisance to adjacent areas.

F. The site and adjacent influenced areas shall be watered as required to suppress dust nuisance.

1.3 GEOTECHNICAL REPORT

A. A Geotechnical Engineering Report (MPE No. 03569-01, dated December 30, 2017) has been prepared for this site by Mid Pacific Engineering, Inc., Geotechnical Engineers. A copy is available for review at the office of Mid Pacific Engineering, Inc., 840 Embarcadero Drive, Suite 20, West Sacramento, California 95605.

B. The information contained in this report was obtained for design purposes only. The Contractor is responsible for any conclusions he/she may draw from this report; should the Contractor prefer not to assume such risk, he/she

should employ their own experts to analyze available information and/or to make additional borings upon which to base their conclusions, all at no cost to the Owner.

1.4 EXISTING SITE CONDITIONS

The Contractor shall be acquainted with all site conditions. If unshown active utilities are encountered during the work, the Architect shall be promptly notified for instructions. Failure to notify will make the Contractor liable for damage to these utilities arising from Contractor's operations subsequent to the discovery of such unshown utilities.

1.5 SEASONAL LIMITS

Fill material shall not be placed, spread or rolled during unfavorable weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until field tests indicate that the moisture contents of the subgrade and fill materials are satisfactory.

PART 2: PRODUCTS

2.1 MATERIALS

A. All fill shall be of approved local materials from required excavations, supplemented by imported fill, if necessary. Approved local materials are defined as local soil free from significant quantities of rubble, rubbish and vegetation, and having been tested and approved by the Geotechnical Engineer prior to use. Clay soils encountered, shall not be used within the upper portion of final building pad subgrades or those grades that will support exterior flatwork, unless lime-treated as recommended in the Geotechnical Engineering Report.

B. Imported fill materials shall be approved by the Geotechnical Engineer; they shall meet the above requirements. If select non-expansive soils are to be

used for fill they shall have plasticity indices not exceeding fifteen (15), when tested in accordance with ASTM D4318; shall have a maximum expansion index not exceeding twenty (20) when tested in accordance with ASTM D4829; and, shall be of three-inch (3") maximum particle size. Import fill shall be clean of contamination with appropriate documentation. All imported materials shall be approved by the Geotechnical Engineer prior to being transported to the site.

C. Asphalt concrete, aggregate base, aggregate sub-base, and other paving products shall comply with the appropriate provisions of the *State of California (Caltrans) Standard Specifications*, and City of Vacaville *Improvement Standards*, latest editions.

PART 3: EXECUTION

3.1 LAYOUT AND PREPARATION

Lay out all work, establish grades, locate existing underground utilities, set markers and stakes, set up and maintain barricades and protection of utilities--all prior to beginning actual earthwork operations.

3.2 CLEARING, GRUBBING AND PREPARING BUILDING PADS AND PAVEMENT AREAS

A. All existing surface or subsurface structures associated with current or past development of the site that are planned for removal, including but not limited to; vegetation, trees, concrete drainage pipe, polyvinyl chloride pipe, concrete structures, drainage rock, underground utilities to be relocated or abandoned including trench backfill, demolition debris, rubble, deleterious material, and any other items designated for removal shall be removed and disposed of so as to leave the areas that have been disturbed with a neat and finished appearance, free from unsightly debris. Trees and shrubs designated to be removed shall include the entire rootball and all roots larger than one-

half inch (½") in diameter. Excavations and depressions resulting from the removal of such items, as well as any existing excavations or loose soil deposits, as determined by the Geotechnical Engineer, shall be cleaned out to firm, undisturbed soil and backfilled with suitable materials in accordance with these specifications. *It is essential that the Geotechnical Engineer be present during clearing operations to verify adequate removal of existing structures and determine the need for additional over-excavation of areas. Excavations resulting from clearing operations shall be left as shallow dish-shaped depressions for proper location and to allow proper access with compaction equipment during grading operations. If clearing and removal of structures takes place without direct observation by the Geotechnical Engineer, the Geotechnical Engineer shall determine the need for deep cross-ripping and/or over-excavation of the disturbed areas and the building pad or structural area affected.*

B. Following site clearing, the existing stockpiles (existing berms) shall be completely removed to expose undisturbed native soils. The stockpiled soils shall be evaluated during initial grading operations to evaluate them for the presence of rubble, refuse, debris, or organics that may prevent them from being used as fill materials during the grading operations.

C. Scarification and/or cross-ripping to depths of twelve inches (12") shall be performed within areas of removed structures, stockpiles, trees, erosion drainage channels, and in other areas as directed by the Geotechnical Engineer, based on the exposed conditions. Exposed remnants, rubble and debris shall be removed from the subgrades. Hand picking of exposed roots, rubble and debris shall be performed by the Contractor to adequately clear the grades. Subsurface utilities to be relocated or abandoned shall be removed from within and to at least five feet (5') beyond the perimeter of the

proposed structural areas; remaining piping beyond the structure that is not removed shall be plugged.

D. The surfaces upon which fill is to be placed, as well as at-grade areas or areas achieved by excavation, shall be plowed or scarified to a depth of at least twelve inches (12") until the surface is free from ruts, hummocks or other uneven features which would tend to prevent uniform compaction by the selected equipment.

E. When the moisture content of the subgrade is below that required to achieve the specified density, and that minimum content recommended in the geotechnical report, water shall be added until the proper moisture content is achieved.

F. When the moisture content of the subgrade is too high to permit the specified compaction to be achieved, the subgrade shall be aerated by blading or other methods until the moisture content is satisfactory for compaction.

G. After the foundations for fill have been cleared, plowed, or scarified, they shall be disced or bladed until uniform and free from large clods, brought to the proper moisture content and compacted to not less than ninety percent (90%) of the ASTM D1557 maximum dry density. Soil compaction shall be performed using a heavy, self-propelled sheepsfoot compactor (Caterpillar 815 or equivalent sized compactor).

H. Compaction operations shall be performed in the presence of the Geotechnical Engineer who will evaluate the performance of the materials under compactive load. Unstable soil deposits, as determined by the Geotechnical Engineer, shall be excavated to expose a firm base and grades restored with engineered fill in accordance with these specifications.

I. Expansive clay soils exposed at or within fifteen to twenty-four inches (15"-24") of final building pad subgrade and subgrades supporting exterior concrete flatwork shall be completely removed and replaced with imported

granular, non-expansive soils or aggregate base placed and compacted as engineered fill, or soil subgrades shall be lime-treated.

J. The existing detention basin and other low lying areas and erosion drainages present on-site should be cleaned of organics, saturated and unstable soils, to expose firm, native soils as determined by our representative. This may require additional sub-excavation to remove organics or unstable soils and to expose a firm, stable subgrade. Organically-laden soils will not be suitable for use as engineered fill construction and will need to be hauled off or used in an approved landscape only area. The exposed surface should be scarified to a depth of at least twelve inches (12"), moisture conditioned to at least the optimum moisture content and compacted to at least 90 percent of the ASTM D1557 maximum dry density. Areas containing unstable soils, as determined by our representative, should be excavation to expose a firm base and the grades should be restored with engineered fill placed in accordance with the recommendations for stabilizing the bottom of excavation, as conditions dictate. Deeper erosion drainages ranging from one to two feet below subgrade were observed in the north central portion of the site, these drainage channels may require benching to provide access to equipment in order to remove loose unstable soils and provide proper processing and compaction. The contractor should include an add/deduct unit price to account for variations during site clearing, and subexcavation.

3.3 PLACING, SPREADING AND COMPACTING FILL MATERIAL

A. Engineered fills shall be placed in layers which when compacted shall not exceed six inches (6") in thickness. Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to promote uniformity of material in each layer.

B. When the moisture content of the fill material is below that required to achieve the specified density, and that minimum content recommended in the geotechnical report, water shall be added until the proper moisture content is achieved.

C. When the moisture content of the fill material is too high to permit the specified degree of compaction to be achieved, the fill material shall be aerated by blading or other methods until the moisture content is satisfactory.

D. After each layer has been placed, mixed and spread evenly, it shall be thoroughly compacted to at least ninety percent (90%) of the ASTM D1557 maximum dry density. Compaction shall be undertaken with a heavy, self-propelled sheepsfoot compactor (Caterpillar 815 or equivalent sized compactor) capable of achieving the specified density and shall be accomplished while the fill material is at the required moisture content. Each layer shall be compacted over its entire area until the desired density has been obtained.

E. Each layer of engineered fill placed to backfill excavations or placed adjacent to sloping ground shall be properly benched at least 12 inches into the side slopes ad as recommended by the Geotechnical Engineer.

F. The filling operations shall be continued until the fills have been brought to the finished slopes and grades as shown on the accepted Drawings.

3.4 FINAL SUBGRADE PREPARATION

A. The upper fifteen to twenty-four inches (15"-24") of final building pads and exterior flatwork subgrades shall consist of imported non-expansive, granular soils, aggregate base, or lime-treated native clayey soils.

B. The upper twelve inches (12") of final building pad subgrades (imported non-expansive, granular soils, aggregates, or treated clayey soils) should be

brought to a uniform moisture content of at least the optimum moisture content for imports and aggregates, and two percent (2%) above the optimum moisture content for lime treated clayey soils, and shall be uniformly compacted to not less than least ninety-five percent (95%) relative compaction.

C. The upper 12 inches (12") of final exterior flatwork subgrades (import or aggregates) should be scarified, brought to at least the optimum moisture content, and uniformly compacted to not less than ninety percent (90%) of the maximum dry density, as determined by ASTM D1557.

D. For untreated pavement subgrades and exterior slab subgrades supporting vehicle loadings, the upper six inches (6") of final subgrades supporting pavement sections shall be brought to a uniform moisture content of at least two percent above the optimum moisture content and shall be uniformly compacted to at least ninety-five percent (95%) relative compaction, regardless of whether final subgrade elevations are attained by filling, excavation, or are left at existing grades. Pavement subgrades shall be proof-rolled in the presence of the Geotechnical Engineer prior to placement of aggregate base and shall be stable under construction equipment traffic.

3.6 TRENCH BACKFILL

Utility trench backfill shall be placed in lifts of no more than six inches (6") in compacted thickness. Each lift shall be compacted to at least ninety percent (90%) compaction, as defined by ASTM D1557, except that backfill supporting sidewalks, streets or other public pavement shall be compacted to comply with applicable City of Vacaville *Improvement Standards*, latest editions. The upper six inches of trench backfill within on-site pavement areas shall be compacted to at least ninety-five percent (95%) compaction, as defined by ASTM D1557. The upper fifteen to twenty-four inches (15"-24") of backfill

material for trenches within the building pad and slab-on-grade subgrades should be non-expansive granular soils or aggregate base compacted to ninety-five percent (95%) relative compaction. The upper twelve inches (12") inches of trench backfill within lime-treated pavement areas shall be Class 2 aggregate base compacted to at least ninety-five percent (95%) compaction.

3.7 TESTING AND OBSERVATION

A. Grading operations shall be observed by the Geotechnical Engineer, serving as the representative of the Owner.

B. Field density tests shall be made by the Geotechnical Engineer after compaction of each layer of fill. Additional layers of fill shall not be spread until the field density tests indicate that the minimum specified density has been obtained.

C. Earthwork shall not be performed without the notification or approval of the Geotechnical Engineer. The Contractor shall notify the Geotechnical Engineer at least two (2) working days prior to commencement of any aspect of the site earthwork.

D. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, the Contractor shall make the necessary readjustments until all work is deemed satisfactory, as determined by the Geotechnical Engineer and the Project Design Engineer. No deviation from the specifications shall be made except upon written approval of the Geotechnical Engineer or Project Design Engineer.

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Appendix E

Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ASTM Standard E 1527-13

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
APNs 133-210-290, -300, -670, -680 and -710
Aviator Drive and East Monte Vista Avenue
Vacaville, Solano County, California

Brusca Project No. 202-003

Prepared for: **Buzz Oates, LLC, Philip D. Oates, OK&B, LLC, and OBF, LLC**

April 22, 2019

Brusca Associates, Inc.
Environmental Engineering Geology

Table of Contents

ATTACHMENTS

EXECUTIVE SUMMARY

Brusca Associates, Inc. has prepared this *Phase I Environmental Site Assessment* of the subject property in general accordance with ASTM Standard E 1527-13. Our assessment has been performed to determine if the potential exists for significant site contamination from either on- or off-site sources for the purpose of identifying any *recognized environmental conditions* in connection with the subject property. We understand that this report will be used for environmental due diligence purposes related to a commercial real estate transaction involving the subject property.

The approximate 30.5-acre subject site is located northerly of Aviator Drive, between East Monte Vista Avenue and Cessna Drive, in a mixed commercial and vacant/undeveloped area of Vacaville, Solano County, California. The subject property is identified by the Solano County Assessor's Office as parcel numbers (APNs) 133-210-290, -300, -670, -680 and -710. The subject site is currently vacant/undeveloped and unused land. The site is mostly flat and supports sparse volunteer vegetation; a number of mature trees are situated along the southerly, easterly and westerly property margins. A sizeable storm water detention basin is situated on the southeasterly portion of the site. Our reconnaissance identified no obvious evidence that current use or activities on the subject property have resulted in a significant release of hazardous substances or petroleum products to the environment on the subject property.

Our research indicates that the subject property historically has been vacant/undeveloped and unused land. A natural drainage feature historically trended across the easterly portion of the site in a north to south direction; this feature was removed/filled around the mid-1980s, likely in conjunction with mass grading in the area. The existing stormwater detention basin was constructed on the southeasterly portion of the site approximately 25 years ago. Our historical research has not revealed the likelihood that past on-site activities would have resulted in a significant release of hazardous substances or petroleum products to the environment on the subject property.

Neither our research of government agency information nor our observations of adjoining areas revealed evidence of nearby contamination conditions of sufficient magnitude or proximity to be considered a threat to the environment on the subject property.

This Phase I Environmental Site Assessment has not revealed evidence of *recognized environmental conditions* in connection with the subject property. In our opinion, the findings of this Phase I study do not warrant further due diligence environmental investigation of the subject property at this time. In consideration of the environmental condition of the property, please refer to the information contained in the remainder of this report.

Brusca Associates, Inc.
Environmental Engineering Geology

April 22, 2019

Buzz Oates, LLC, Philip D. Oates, OK&B, LLC, and OBF, LLC
Attention: Chelsea Bowman
555 Capitol Mall Suite 900
Sacramento, Ca 95814

PHASE I ENVIRONMENTAL SITE ASSESSMENT
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
APNs 133-210-290, -300, -670, -680, and -710
Aviator Drive and East Monte Vista Avenue
Vacaville, Solano County, California
Brusca Project No. 202-003

1.0 INTRODUCTION

Brusca Associates, Inc. has completed this *Phase I Environmental Site Assessment* of the subject property at the request of Buzz Oates, LLC, Philip D. Oates, OK&B, LLC, and OBF, LLC (herein refered to as Buzz Oates, LLC). The approximate 30.5-acre subject property is situated northerly of Aviator Drive, between East Monte Vista Avenue and Cessna Drive, in Vacaville, Solano County, California. The subject property is identified by the Solano County Assessor's Office as parcel numbers (APNs) 133-210-290, -300, -670, -680, and -710. The subject site is currently vacant/undeveloped and unused land and supports sparse volunteer vegetation and grasses; a number of mature trees are situated along the southerly, easterly and westerly property margins, and a storm water detention basin is situated on the southeasterly portion of the site.

We understand that this report will be used for environmental due diligence purposes related to a commercial real estate transaction involving the subject property. This *Phase I Environmental Site Assessment* has been performed in general accord with the scope and limitations of the 2013 American Society for Testing and Materials (ASTM) *Standard Practice for Phase I Environmental Site Assessments Process* (E 1527-13).

1.1 PURPOSE AND KEY DEFINITIONS

The purpose of our assessment has been to identify any *recognized environmental conditions* in connection with the subject property to determine if the potential exists for significant site contamination from either on- or off-site sources. A *recognized environmental condition* is defined in the referenced standard as:

> "*the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized*

> *environmental conditions."* A *de minimis condition* is defined as *"a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions".*

We have also considered whether any *historical recognized environmental conditions* or *controlled recognized environmental conditions* are associated with the property. A *historical recognized environmental condition* is defined as:

> *"a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)".*

A *controlled recognized environmental condition* is defined as:

> *"a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)".*

1.2 PROPERTY INFORMATION AND LOCATION

General Property Information/Location					
Property Name:	Aviator Drive and East Monte Vista Avenue Property	Address:	Aviator Drive and East Monte Vista Avenue, Vacaville, California		
APNs:	133-210-290, -300, -670, -680, and -710	County:	Solano	Owner:	Buzz Oates, LLC
Location:	See *Vicinity Map*, Plate 1			Size:	Approx. 30.5 acres
Latitude/Longitude:	38.3924050/ -121.9558540	Current Use:	Vacant/unused		
Considered Future Use:	Commercial/industrial; warehouse/distribution facility				

1.3 SCOPE OF WORK

Protocol and ASTM Scope Items

This *Phase I Environmental Site Assessment* has been performed in general accord with the scope and limitations of the 2013 ASTM *Standard Practice for Phase I Environmental Site Assessments Process* (E 1527-13). A *Phase I Environmental Site Assessment* is the primary component of an "*All Appropriate Inquiry"* designed to evaluate the environmental integrity of a property as part of the due diligence required to qualify for Landowner Liability Protections under the Comprehensive Environmental

Response, Compensation, and Liability Act (CERCLA). The regulatory requirements and standards for Phase I environmental site assessment were established by the Federal Environmental Protection Agency and are outlined in 40 CFR Part 312, *"The Final Rule for Standards and Practices for All Appropriate Inquiries (AAI)"*.

The scope of this investigation included:

- Review of physical setting information sources
- Historical research, including review of any available, relevant environmental reports
- Site reconnaissance and observations of adjacent and nearby properties
- Interviews of individuals knowledgeable of the property and agency representatives
- Review of regulatory agency listings and records, including an agency database report
- Evaluation of the collected information, and preparation of this report

Non-ASTM Scope Items

The scope of work associated with this *Phase I Environmental Site Assessment* has not included soil, soil gas, or groundwater sampling/testing, a chain-of-title document search, an evaluation of business environmental risk, an environmental compliance audit, research regarding use limitations (deed restrictions), or a property lien search. Our study also has not included evaluation of the following non-ASTM scope items: asbestos-containing building materials or naturally-occurring asbestos; lead-based paint; indoor air quality; industrial hygiene or safety; cultural or historic resources; ecological resources or endangered species; wetlands; biological agents; or, mold. We could develop a scope and cost estimate for performance of non-ASTM scope items upon request.

1.4 EXCEPTIONS AND LIMITATIONS

No significant exceptions to or deviations from the ASTM standard (E 1527-13) were made during the course of our work. The ASTM Standard E 1527-13 is designed to establish good commercial and customary practices to be implemented by the Environmental Professional in performing Phase I assessment of a property in a manner that satisfies CERCLA requirements. Our services are performed in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The findings and conclusions presented herein are based on the cited reference materials, conversations, reconnaissance, and other information obtained from a variety of sources deemed to be reliable. No warranty regarding the accuracy of our opinions or conclusions is expressed or implied. It should be understood that the scope of investigation described herein is not exhaustive, and performance of a *Phase I Environmental Site Assessment* cannot completely eliminate uncertainties regarding the potential for environmental impairment of a property.

1.5 USER RELIANCE AND CONFIDENTIALITY

Buzz Oates, LLC and Raney Planning and Management may read and rely upon the information, findings, conclusions, and recommendations contained herein. Without prior written consent of the client, Brusca Associates, Inc. will keep confidential and not disclose to any person or entity, any data or information provided by the client or generated in conjunction with the performance of this study. Provisions of confidentiality shall not apply to data or information obtained from the public domain or acquired from third parties not under obligation to the client to maintain confidentiality.

2.0 PHYSICAL SETTING

2.1 PHYSICAL SETTING SOURCES

Sources used to determine the regional setting during this study have included the following:

- 1977 CGS Geologic Map of California (1:750,000)
- 1981 CGS Geologic Map of the Sacramento Quadrangle (1:250,000)
- 1985 USGS Geologic Map of the Late Cenozoic Deposits of the Sacramento Valley (1:62,500)
- USGS Allendale Quadrangle (1:24,000)

2.2 TOPOGRAPHY

As shown on the USGS Allendale Quadrangle (see Plate 1), the subject property is situated at elevations on the order of 105 feet above sea level. The site is relatively flat, and surface gradients in the vicinity slope gently toward the southeast.

2.3 GEOLOGY AND SOILS

The subject property is situated within the Sacramento Valley in the Great Valley geomorphic province of California. The valley was formed by tilting of the Sierran Block with the western side dropping to form the valley and the eastern side uplifting to form the Sierra Nevada. The valley is characterized by a thick sequence of sediments derived from erosion of the adjacent Sierra Nevada to the east and the Coast Ranges to the west. These sedimentary rocks are mainly Cretaceous in age. The depth of the sediments varies from a thin veneer at the edges of the valley to depths in excess of 50,000 feet near the western edge of the valley.

According to U.S. Geological Survey mapping prepared by Helley and Harwood (1985) the surface deposits in the vicinity of the subject site are recognized as Quaternary Alluvium. This unit is comprised of unweathered gravel, sand, and silt deposited by present-day stream and river systems. The deposits for levees along the main course of the Sacramento River, and broad alluvial fans of low surface relief along the western and southwestern side of the valley.

Soil mapping by the the US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) indicates that the majority of onsite soils are identified as Corning gravelly loam. Soils located on the easterly portion of the site are identified as Rincon clay loam. These soil units are indicated to be well drained.

2.4 SURFACE WATER AND GROUNDWATER

A sizeable stormwater detention basin is situated on the southeasterly portion of the subject property; stormwater from the site apparently drains towards this basin which discharges into two storm drains along East Monte Vista Avenue. Putah South Canal is situated approximately 1,000 feet westerly of the subject site, at its closest point. We observed no evidence of suspicious run-off to, or from the subject property during our recent site visit.

Groundwater conditions within the general area of the subject property have been considered utilizing information obtained from the California Department of Water Resources, Solano County, and the California Regional Water Quality Control Board. These sources indicate that groundwater generally occurs at depths on the order of 40 to 50 feet in the general site vicinity; the groundwater flow direction is indicated to be easterly.

3.0 SITE RECONNAISSANCE

Site Reconnaissance		
Date: April 5, 2019	Brusca Associates, Inc. Representative: Alycia Cridebring	Weather: Overcast
Site Layout: See Plate 2, *Site Map*	Site Photographs: See Appendix A	Limiting Conditions: None

3.1 SITE DESCRIPTION

General

The approximate 30.5-acre subject property is located northerly of Aviator Drive, between East Monte Vista Avenue and Cessna Drive in a mixed commercial/light-industrial and vacant/undeveloped area of Vacaville, Solano County, California. The subject property is currently vacant/undeveloped and unused land. The site is mostly flat and supports sparse volunteer vegetation; a number of mature trees are situated along the southerly, easterly and westerly property margins. Storm drain manhole covers, several fire hydrants, and a water utility cover were observed along the southerly property margin. A small orange marker indicating an underground natural gas pipeline was observed along the easterly property margin.

A sizeable stormwater detention basin is situated on the southeasterly portion of the property. Stormwater from the site apparently drains towards this basin, which then discharges to drainage systems along East Monte Vista Avenue when water from the detention basin overflows. A concrete paved outlet and drains surrounded by riprap rock are situated at the southeasterly corner of the detention basin (outlet location).

Two approximate eight-foot long segments of about three-foot diameter concrete pipe (apparently unused) were observed on the northerly property margin of the site. Additionally, minor amounts of environmentally-innocuous debris/rubbish were observed on various portions of the site. Our observations of these areas did not reveal any conditions of environmental concern.

3.2 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

No hazardous substances or petroleum products are used/stored on the subject site.

3.3 UTILITIES

Electricity and natural gas are provided to the subject vicinity by Pacific Gas and Electric Company (PG&E). Municipal drinking water and sewer service are provided to the subject vicinity by the City of Vacaville.

3.4 COMMON SITE-SPECIFIC ENVIRONMENTAL CONCERNS

Potential Environmental Concern	Observations/Comments
Storage Tanks, Vent/Fill Pipes	None revealed by our reconnaissance or research
Petroleum Pipelines or Oil & Gas Wells	None revealed by our reconnaissance or research
Drums	None revealed by our reconnaissance or research
Unidentified Substance Containers	None revealed by our reconnaissance or research
Sumps	None revealed by our reconnaissance or research
Floor Drains	None revealed by our reconnaissance or research
Stains	None revealed by our reconnaissance or research
Septic Systems	None revealed by our reconnaissance or research
Stressed Vegetation	None revealed by our reconnaissance or research
Solid Waste Disposal/Fill Placement	None revealed by our reconnaissance or research
Pools of Liquid/Standing Water	A stormwater detention basin is situated on the southeasterly portion of the site; see *Section 3.1*
Unusual Odors	None revealed by our reconnaissance or research
Polychlorinated Biphenyls (PCBs)	None revealed by our reconnaissance or research
Pits, Ponds, or Lagoons; Wastewater Treatment	A stormwater detention basin is situated on the southeasterly portion of the site; see *Section 3.1*
Wells	None revealed by our reconnaissance or research

3.5 RESULTS OF SITE RECONNAISSANCE

We observed no obvious evidence of contamination conditions, improper hazardous substance/petroleum products use or storage, environmentally suspicious dumping or discharge, or significant staining. Our reconnaissance identified no obvious evidence that current use or activities on the subject property have resulted in a significant release of hazardous substances or petroleum products to the environment on the subject property.

4.0 ADJOINING SITE CONDITIONS AND USE

The approximate 30.5-acre subject site is located within a mixed commercial/light-industrial and vacant/undeveloped area of Vacaville, Solano County. The subject site is generally bounded by mixed commercial and vacant/undeveloped properties to the north, by Aviator Drive to the south, by East Monte Vista Avenue to the east, and by Cessna Drive to the west. Information regarding adjoining and nearby site use is presented below.

Direction	Description
Northerly	Vacaville Corporate Center (810 Vaca Valley Parkway) and vacant/undeveloped land
Southerly (across Aviator Drive)	Commercial Properties – Solano County Irrigation District (1090 Aviator Drive), Hill's Pet Nutrition (1070 Aviator Drive), and U-Haul Moving &

Direction	Description
	Storage of Vaca Valley (1000 Aviator Drive) and vacant/undeveloped land
Easterly (across East Monte Vista Avenue)	Self-storage facility – Security Public Storage (2400 East Monte Vista Avenue) and vacant/undeveloped land
Westerly (across Cessna Drive)	Vacant/undeveloped land

Our research and visual observations of adjoining and nearby properties did not identify current conditions or activities considered likely to have resulted in a significant release of hazardous substances or petroleum products affecting the environment on the subject property.

5.0 INTERVIEWS AND USER QUESTIONNAIRE

5.1 INTERVIEWS

The following individuals were contacted in person, by phone, or by written communication to obtain information relevant to the environmental status and condition of the subject property.

Relationship to Property	Name/Affiliation	Comments
User Representative/ Owner Representative	Chelsea Bowman, Buzz Oates, LLC	See *Section 5.2*
Agency Official	Matthew Geisert, Solano County Environmental Health Department	See *Section 8.1*

As a part of our research, we conducted an interview with a current owner representative, Chelsea Bowman of Buzz Oates, LLC. Ms. Bowman indicated that she has been familiar with the site for about a year and a half, and that Buzz Oates Group of Companies acquired the subject parcels at different times between 2009 and 2019. The property has reportedly generally remained vacant/undeveloped and unused. Ms. Bowman indicated that there are no environmental liens or environmentally-related activity and use limitations associated with the subject property. Ms. Bowman also indicated that there are no known past hazardous substances/petroleum hydrocarbons releases or known contamination conditions on the property, and that there are no activities or features of potential environmental concern (including past or present underground storage tanks, above-ground storage tanks, on-site waste disposal, pits, sumps, oil-water separators, or septic systems) associated with the site. Additional information obtained from interviews is presented in the relevant sections of this report.

5.2 USER QUESTIONNAIRE

In order to qualify for one of the Landowner Liability Protections offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user of this report must provide specific information (if available) to the environmental professional. A user representative (Chelsea Bowman of Buzz Oates, LLC) completed a *User Questionnaire* for the subject property; a copy of the completed *User Questionnaire* is presented in Appendix B. The responses presented on the *User Questionnaire* did not reveal any evidence of recognized environmental conditions in connection with the subject property.

6.0 PREVIOUS ENVIRONMENTAL INVESTIGATION

In February 2019, our firm prepared a *Phase I Environmental Site Assessment* of the far easterly portion of the subject property.[1] At the time of the 2019 study, the subject property was vacant/undeveloped land and supported the existing stormwater detention basin on the southeasterly portion of the site; the site conditions observed during our recent site visit are very similar to those described in our previous report. The 2019 study did not identify any recognized environmental conditions in connection with the subject property.

7.0 HISTORICAL RESEARCH

7.1 HISTORICAL INFORMATION SOURCES

General

As a part of this *Phase I Environmental Site Assessment*, historical research was performed to determine the past usage of the subject property and to evaluate the potential that past site usage resulted in recognized environmental conditions on the property. In accordance with ASTM Standard E 1527-13, our research has included evaluation of obvious uses of the property back to initial site development, or the 1940s, whichever is earlier. A number of different historical resources have been considered; the historical information sources considered are discussed below. Selected historical information (including aerial photographs and topographical maps) is presented in Appendix C.

Aerial Photographs

We reviewed historical aerial photographs dated 1937, 1952, 1974, 1984, 1993, 2006, 2009, 2012, 2016, and 2019. On the 1937 aerial photograph, the subject property appears as vacant/undeveloped and unused land; a natural drainage feature is shown trending across the easterly portion of the site in a north to south direction at that time. No significant changes are apparent on the aerial photographs dated 1952, 1968, and 1974. On the 1984 aerial photograph, the drainage feature appears to have been removed/filled and the easterly portion of the subject property appears to have been mass graded. On the 1993 aerial photograph, the existing stormwater detention basin is apparent on the southeasterly portion of the site; rows of trees appear to have been planted along the southerly, easterly and westerly property margins. The easterly, westerly, and southerly adjoining roadways (East Monte Vista Avenue, Cessna Drive, and Aviator Drive, respectively) are shown in place on the 1993 aerial photograph. No significant changes to the subject property are apparent on the subsequent aerial photographs; the site continues to appear vacant and unused.

USGS Topographic Maps

We reviewed U.S. Geological Survey topographic quadrangle maps (Allendale Quadrangle) dated 1908, 1917, 1953, 1968, 1973, 1978, and 2012. All of the quadrangle maps depict the subject property as vacant and undeveloped land. The 1953 and subsequent quadrangle maps depict a drainage feature trending across the easterly portion of the site in a north to south direction. Adjoining roadways, Aviator

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[1] Brusca Associates, Inc.; "Phase I Environmental Site Assessment, Aviator Drive and East Monte Vista Avenue Property, APNs 133-210-290 and-300, Aviator Drive and East Monte Vista Avenue, Vacaville, Solano County, California"; February 4, 2019; Brusca Project No. 202-003.

Drive, Cessna Drive and East Monte Vista Avenue are first shown developed on the 2012 quadrangle map. No structures or features of environmental concern on the subject property were identified on the quadrangles reviewed.

Sanborn Fire Insurance Maps

Our research indicates that the area of the subject property is not covered by available Sanborn Fire Insurance Maps.

Oil and Gas Well Maps

Our review of California Department of Conservation Division of Oil and Gas records indicates no evidence of past or present oil or gas wells on the subject property.

EDR Proprietary Listings

Environmental Data Resources (EDR) maintains proprietary databases of historic potential high-risk sites, including dry cleaners, gasoline stations, automotive stations, and manufactured gas plants. The proprietary databases were developed largely from historic business directories. As shown in the database report presented in Appendix D, the subject property does not appear in any of these databases.

Interviews

Interview information is presented in *Section 5.1* of this report.

Previous Environmental Report

Previous environmental investigation of the property was discussed in *Section 6.0* of this report.

7.2 SUMMARY OF PAST SITE CONDITIONS AND USAGE

The historical information obtained from the sources described above indicate that the subject property historically has been vacant/undeveloped and unused land. A natural drainage feature historically trended in a north to south direction across the easterly portion of the subject site; this feature was removed/filled around the mid-1980s, likely in conjunction with mass grading in this area. The existing stormwater detention basin was constructed on the southeasterly portion of the site approximately 25 years ago.

Our research and reconnaissance have not revealed evidence indicating the likelihood that past on-site activities would have resulted in a significant release of hazardous substances or petroleum products to the environment on the subject property.

7.3 PAST ADJOINING SITE USAGE

Information obtained from historical sources cited in *Section 7.1* indicates that adjoining and nearby properties historically supported vacant/undeveloped and unused land. The general area of the site apparently was mass graded in the mid- to late-1980s, and the southerly, westerly and easterly adjoining

roadways (Aviator Drive, Cessna Drive and East Monte Vista Avenue, respectively) were in place by at least the early-1990s. The southerly adjoining property (across Aviator Drive) was developed with commercial/industrial buildings around the early 1990s and 2000s; a portion of the southerly adjoining property remained vacant/undeveloped. The northwesterly adjoining property was developed with a large commercial/office building and associated pavements around the mid-2000s. The southerly portion of the easterly adjoining site was developed around 2016 with a self-storage facility; the northerly portion of the easterly adjoining property is currently vacant/undeveloped. The far easterly portion of the southerly adjoining property (across Aviator Drive) was developed with a commercial/light-industrial building occupied by a U-Haul business around 2017. The northeasterly and westerly (across Cessna Drive) adjoining properties have generally remained vacant/undeveloped.

Our research has not identified past adjoining or nearby site usage considered likely to have resulted in a release of hazardous substances or petroleum products that would have affected the environment on the subject property.

8.0 AGENCY RECORDS REVIEW

8.1 INFORMATION SOURCES

As a part of this *Phase I Environmental Site Assessment*, agency listings and records were reviewed and considered to evaluate the environmental status and condition of the subject property. Agency research has included obtaining an agency listings database report through a third-party provider; the database records search (including search radii) meets and exceeds the agency listings search provisions of ASTM Standard E 1527-13. The database report was obtained from Environmental Data Resources (EDR) and is presented in Appendix D. In addition to review of the agency database report, supplemental research was performed via online environmental databases (including Geotracker[2] and Envirostor[3]), and through direct communications and file review (as warranted) with various agencies (including local agencies not included in the database report).

Federal, State, and Tribal Listings/Records

A partial summary of federal, state, and tribal agency records and listings reviewed/researched, including the *Standard Environmental Record Sources* required by ASTM E 1527-13, is presented below. A significant number of additional lists were reviewed; for a comprehensive listing of the agency sources researched and descriptions of the agency listings, refer to the appended database report.

Federal Databases	Search Radius	Comments
NPL Site List	1 mile	No relevant listings/records identified
Proposed NPL Site List	1 mile	No relevant listings/records identified
NPL Liens List	Subject Property	No relevant listings/records identified
Delisted NPL Site List	1 mile	No relevant listings/records identified

[2] Geotracker (www.geotracker.waterboards.ca.gov); environmental database of regulated facilities in California maintained by the State Water Resources Control Board.
[3] Envirostor (www.envirostor.dtsc.ca.gov); online database of contaminated sites, environmental cleanups, and permitted facilities in California maintained by the Department of Toxic Substances Control.

Federal Databases	Search Radius	Comments
CERCLIS List	0.5 mile	No relevant listings/records identified
CERCLIS Federal Facility List	0.5 mile	No relevant listings/records identified
CERCLIS NFRAP Site List	0.5 mile	No relevant listings/records identified
RCRA CORRACTS Facilities List	1 mile	No relevant listings/records identified
RCRA Non-CORRACTS TSD Facilities List	0.5 mile	No relevant listings/records identified
RCRA Generators List	0.25 mile	No relevant listings/records identified
US Engineering Controls Registry	0.5 mile	No relevant listings/records identified
US Institutional Controls Registry	0.5 mile	No relevant listings/records identified
LUCIS	0.5 mile	No relevant listings/records identified
ERNS List	Subject Property	No relevant listings/records identified

State/Tribal Databases	Search Radius	Comments
CA RESPONSE (equiv. NPL)	1 mile	No relevant listings/records identified
CA ENVIROSTOR (equiv. CERCLIS)	1 mile	No relevant listings/records identified
RWQCB SLIC List	0.5 mile	No relevant listings/records identified
Landfill/Solid Waste Disposal Site Lists	0.5 mile	No relevant listings/records identified
Leaking Storage Tank Lists	0.5 mile	No relevant listings/records identified
Registered Storage Tank Lists	0.25 mile	No relevant listings/records identified
Voluntary Cleanup Sites Lists	0.5 mile	No relevant listings/records identified
Brownfield Sites	0.5 mile	No relevant listings/records identified

Local Agency Listings/Records

The Solano County Environmental Health Department (SCDRM) is the local *Certified Unified Program Agency (CUPA)* responsible for sites located within Solano County. As the local CUPA, the SCDRM is certified and responsible for oversight of the following consolidated programs: Hazardous Materials Release Response Plans and Inventories (Business Plans); California Accidental Release Program; Underground Storage Tank Program; Aboveground Petroleum Storage Act; Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and, California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements. Our research indicates no environmentally-relevant listings or records pertaining to the subject property are maintained by the SCDRM. Additionally, our research does not indicate that other local agencies maintain any environmentally-relevant records or files pertaining to the subject property.

8.2 SUBJECT PROPERTY LISTINGS/RECORDS

Our research has not revealed that the subject property appears on the federal or state listings reviewed. Additionally, our research with local agencies, including the CUPA, indicates that none of these agencies maintains environmentally-relevant records or files pertaining to the subject property.

8.3 NEARBY SITES LISTINGS/RECORDS

Our research of agency listings and records indicates that a few nearby sites appear on agency listings within the search radii considered (up to one mile from the subject property). We researched and reviewed agency information regarding nearby listed sites to evaluate whether readily available information would suggest the potential for environmental impairment of the subject property from off-site areas. Our research and review of agency information regarding the nearby listed sites included consideration of the following:

- the nature/type of each listing
- the proximity of these sites to the subject site
- the nature of any nearby hazardous materials violations
- the magnitude and character of nearby known contamination conditions (including details regarding contaminant type, contamination extent, affected media, and agency status).

The agency information reviewed does not indicate that any of the nearby listed sites poses a significant threat to the environmental integrity of the subject property.

9.0 SIGNIFICANT DATA GAPS

Environmental assessment data gaps may affect the ability to identify recognized environmental conditions. Data gaps may include the inability to access relevant on-site structures or to communicate with individuals knowledgeable of the subject property or nearby contamination conditions. Lack of adequate historical information sources can also result in data gaps. In general, minor data gaps do not hinder an environmental professional's ability to render an opinion regarding potential environmental conditions associated with the subject property. There were no significant data gaps identified for this study.

10.0 FINDINGS, OPINIONS, AND CONCLUSIONS

Brusca Associates, Inc. has performed *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Standard E 1527-13 of the Aviator Drive and East Monte Vista Avenue Property identified by the Solano County Assessor's Office as APNs 133-210-290, -300, -670, -680 and -710. Any exceptions to, or deletions from, this practice are described in *Section 1.4* of this report. This assessment has revealed no evidence of existing, controlled, or historical recognized environmental conditions in connection with the property.

11.0 STATEMENT OF QUALIFICATIONS

Brusca Associates, Inc. is a multi-disciplinary geoscience consulting firm serving private and public-sector clients throughout Central and Northern California, and beyond. The firm specializes in environmental assessment and engineering geology consulting related to property acquisition, finance, due diligence, development, and regulatory compliance. Environmental services include: initial site assessment; soil, soil gas, and groundwater investigations; site characterization; groundwater monitoring; remedial feasibility studies; remedial design; and, clean-up oversight.

The Environmental Specialist for this study, Alycia Cridebring, holds a Bachelor of Science degree in Environmental Science and Management from the University of California at Davis, California. Ms. Cridebring has been an Environmental Specialist for Brusca Associates, Inc. since 2017.

The Project Manager for this study, Rachel Robles, holds a Bachelor of Science degree in Environmental Policy Analysis and Planning from the University of California at Davis, California. Ms. Robles is the Due Diligence Manager for Brusca Associates, Inc., and manages the firm's Phase I studies. Prior to joining Brusca Associates, Inc., Ms. Robles worked for AQUA Science conducting environmental and biologic testing and analyses. Prior to working with AQUA Science, Ms. Robles was employed with Area West Environmental and Arcadis performing environmental site assessment work. Ms. Robles' experience includes assistance with laboratory programs at the Crocker Nuclear Laboratory.

The firm's founder and President, Joe Brusca, directly oversees all firm operations. Mr. Brusca holds a Bachelor of Science degree in Geology from the University of California at Davis, California, is a Professional Geologist and Certified Engineering Geologist in the State of California, and has over 30 years of environmental and geological consulting experience spanning a broad range of geographic areas, project types, and client needs. Mr. Brusca and key staff are certified for Hazardous Waste Site Operations training in accord with 29 CFR 1910.120.

12.0 ENVIRONMENTAL PROFESSIONAL STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professionals as defined in §312.10 of 40 CFR 312. An *Environmental Professional* is "*a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f) of 40 CFR 312.*"

13.0 CLOSING

If you have any questions or require additional information, please contact the undersigned at (916) 677-1470.

Sincerely,

BRUSCA ASSOCIATES, INC.

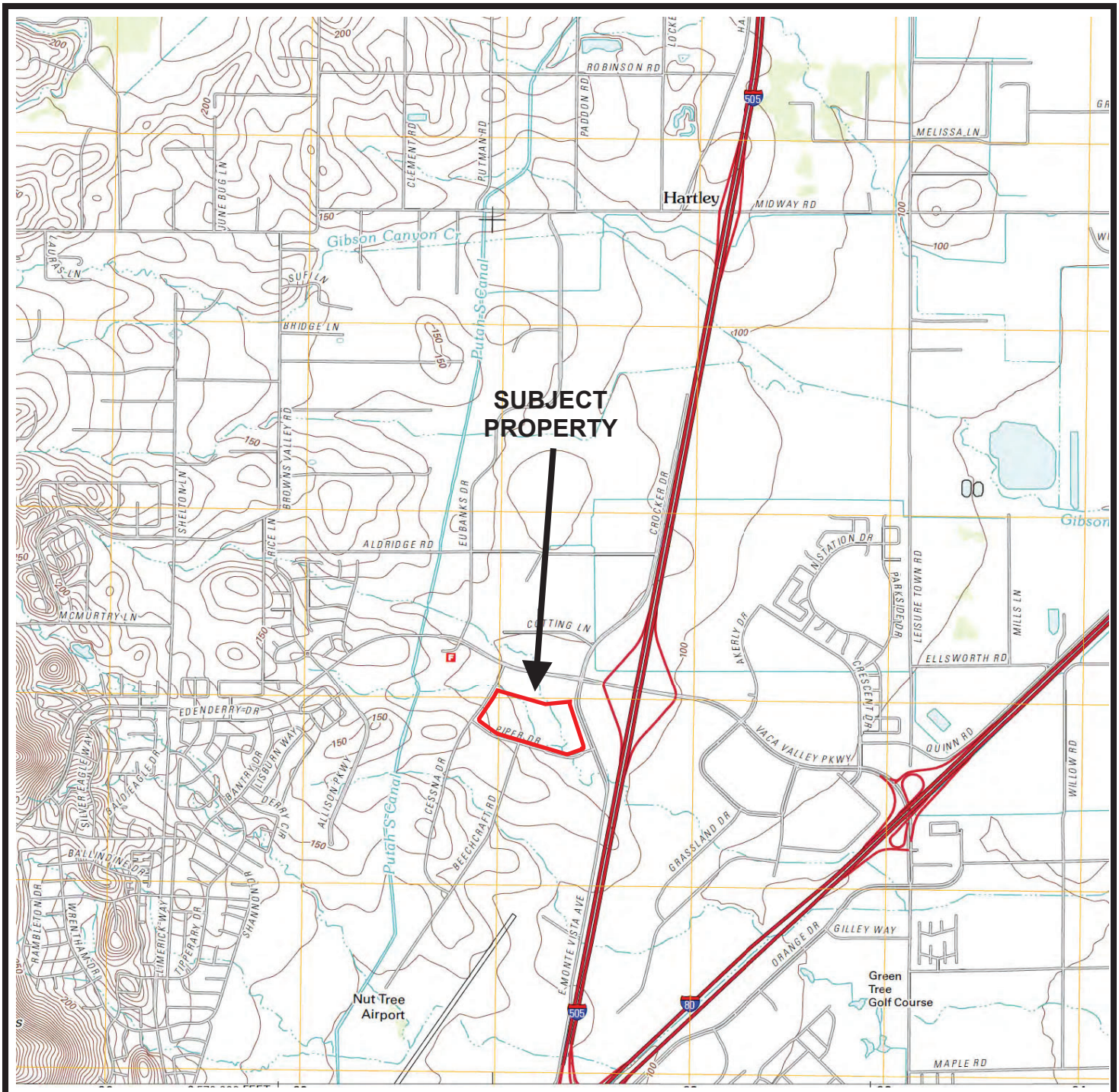
Alycia Cridebring
Environmental Specialist

Rachel Robles
Environmental Specialist
Due Diligence Manager

REGISTERED GEOLOGIST
JOSEPH G. BRUSCA
NO. 1948
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Joe Brusca
Principal Engineering Geologist
Certified Engineering Geologist No. 1948

RR:JB:rr



SOURCE: U.S.G.S. 7.5-minute Elmira Quadrangle, California, 2012
Scale 1:24,000

Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

PLATE 1 - VICINITY MAP

Aviator Drive and East Monte Vista Avenue Property
Aviator Drive and East Monte Vista Avenue
Vacaville, California

PREPARED FOR:	Buzz Oates, LLC		
PROJ. MGR:	Rachel Robles	DATE:	4/4/19
DRAWN BY:	AC	PROJ. #:	202-003

Approximate boundary of subject property

NORTH

All features and locations are approximate only

Brusca Associates, Inc.
Environmental Engineering Geology

PLATE 2 - SITE MAP
Aviator Drive and East Monte Vista Avenue Property
Aviator Drive and East Monte Vista Avenue
Vacaville, California

PREPARED FOR:	Buzz Oates, LLC		
PROJ. MGR:	Rachel Robles	DATE:	4/4/19
DRAWN BY:	AC	PROJ. #:	202-003

APPENDIX A – Photographs

Northwesterly view from southeast corner of site

Southwesterly view from northeast corner of site

Southeasterly view from northwest corner of site

Northeasterly view from southwest corner of site

Utility covers situated on southerly property margin

Fire hydrant situated along southerly property margin

Date of Photography: April 5, 2019

APPENDIX A – PHOTOGRAPHS

Northeasterly view of stormwater detention basin situated on southeasterly portion of site

Concrete paved outlet situated along easterly portion of site

Drainage grate surrounded by riprap rock for excess stormwater flow situated on easterly portion of site

Concrete piping observed on northerly portion of site

Mature trees situated along the easterly property margin

Northerly view of subject site

Date of Photography: April 5, 2019

APPENDIX A – PHOTOGRAPHS

APPENDIX B – User Questionnaire

USER QUESTIONNAIRE

This *User Questionnaire* is part of the *Phase I Environmental Site Assessment* (ESA). To qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments") the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Attach additional sheets if necessary for further explanation.

User Representative Name:	*Chelsea Bowman*	***Signature:*** CBowman	***Date:*** *4/4/19*
Property Address:	*Aviator Drive between East Monte Vista Avenue & Cessna Drive*	***Parcel Number(s):***	*133-210-290; 133-210-300; 133-210-670; 133-210-680; 133-210-710*

1. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?
☒No ☐Yes, Explain:

2. 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 site and/or have been filed or recorded in a registry under federal, tribal, state or local law?
☒No ☐Yes, Explain:

3. 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 so that you would have specialized knowledge of the chemicals and processes used by this type of business?
☒No ☐Yes, Explain:

4. Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?
☐No ☐Yes, Explain: N/A – property is not currently for sale.

5. 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?
☒No ☐Yes, Explain:

5a. Do you know the past uses of the property?
☐No ☒Yes, Explain: Vacant/undeveloped land

5b. Do you know of specific chemicals that are present or once were present at the property?
☒No ☐Yes, Explain:

5c. Do you know of spills or other chemical releases that have taken place at the property?
☒No ☐Yes, Explain:

5d. Do you know of any environmental cleanups that have taken place at the property?
☒No ☐Yes, Explain:

6. As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?
☒No ☐Yes, Explain:

ADDITIONAL INFORMATION

Certain information should be collected, if available, and provided to the environmental professional selected to conduct the Phase I ESA. This information is intended to assist the environmental professional but is not necessarily required to qualify for one of the LLPs.

Why is the Phase I ESA required? *For reference purposes in the City of Vacaville's IS/MND or EIR.*
What is the nature of the property transaction (sale, purchase, exchange, bank loan, etc.)? *N/A – this property is not currently involved in any transactions.*
What is the planned use of the property? *Warehouse/distribution facility*
Is there any scope of services desired or required beyond ASTM 1527 Phase I ESA 1527? *No*
Identify all parties who will rely on the Phase I ESA report. *Raney Planning & Management* *City of Vacaville (?)*
Are there any special terms or agreements which must be agreed upon by the environmental professional? *No*
Is there any other knowledge or experience with the property (for example, copies of prior environmental reports or documents relative to the environmental conditions of the property)? *No*
Identify the current owner of the property and how the owner can be reached. *Buzz Oates, LLC* *Contact: Chelsea Bowman, (916) 379-3838, chelseabowman@buzzoates.com*
Identify the site contact and how the contact can be reached. *Contact: Chelsea Bowman, (916) 379-3838, chelseabowman@buzzoates.com*

APPENDIX C – Historical Information

- Aerial Photographs
- Topographical Quadrangle Maps

Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 2016
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003

Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 2012
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003

Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 2009
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003

Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 2006
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003

Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 1993
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003

Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 1984
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003

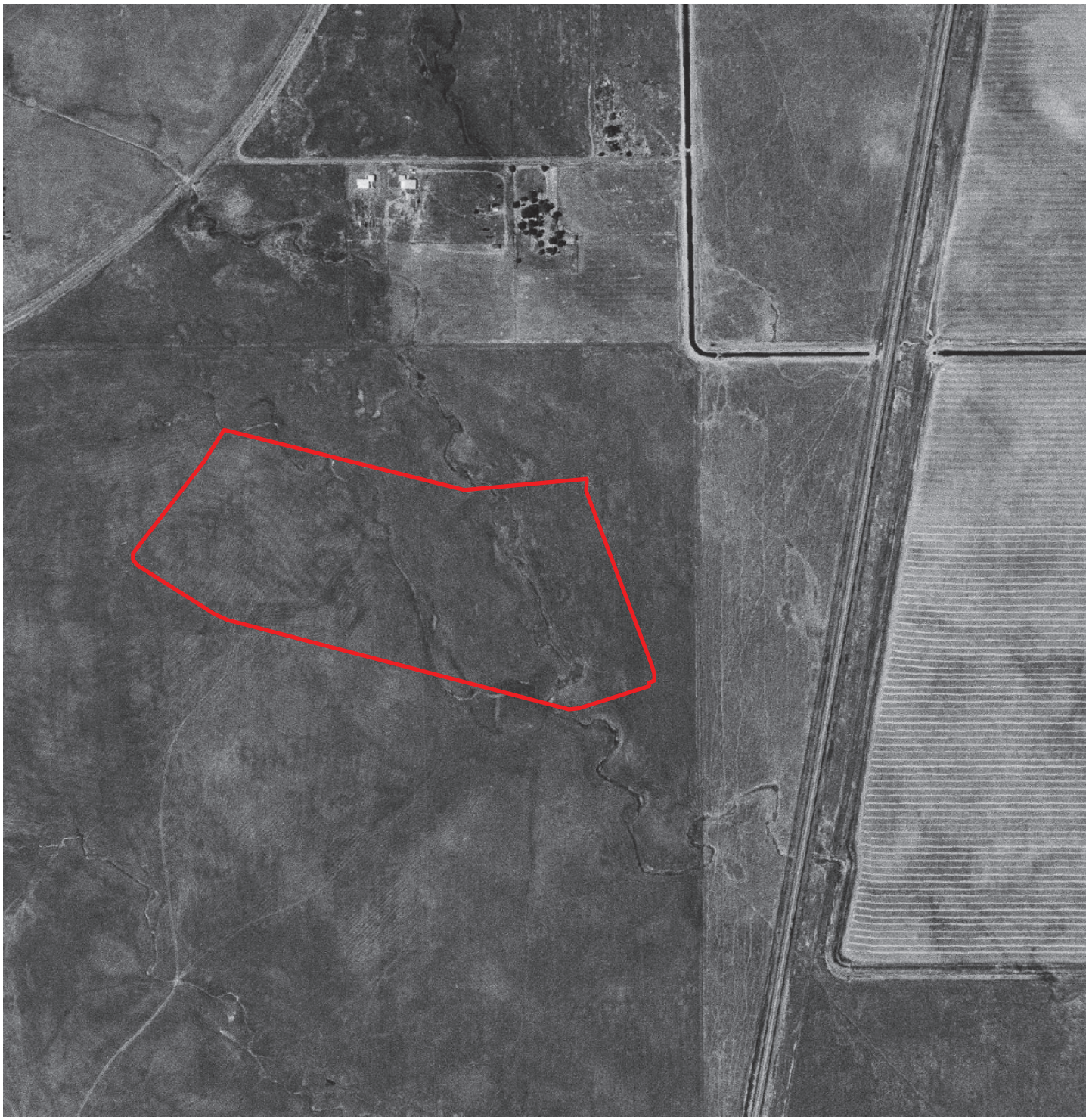
Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 1974
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003



Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 1968
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003

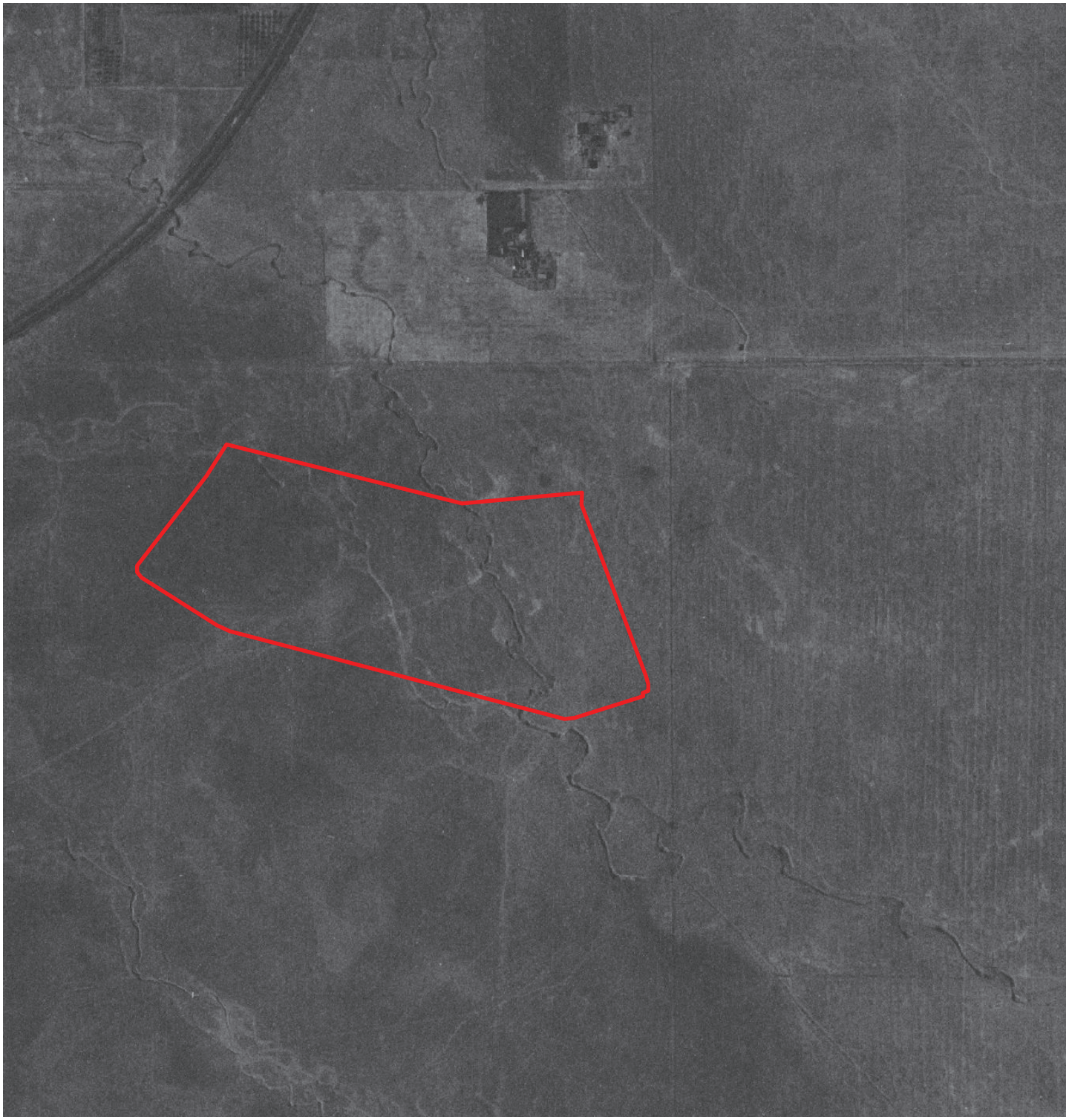
Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 1952
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003



Boundaries are approximate

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

AERIAL PHOTOGRAPH - 1937
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE, CALIFORNIA

PREPARED FOR:	Buzz Oates, LLC.		
PROJ. MGR:	Rachel Robles	DATE:	4/11/19
DRAWN BY:	AC	PROJ. #:	202-003

Boundaries are approximate

Allendale Quadrangle, California

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

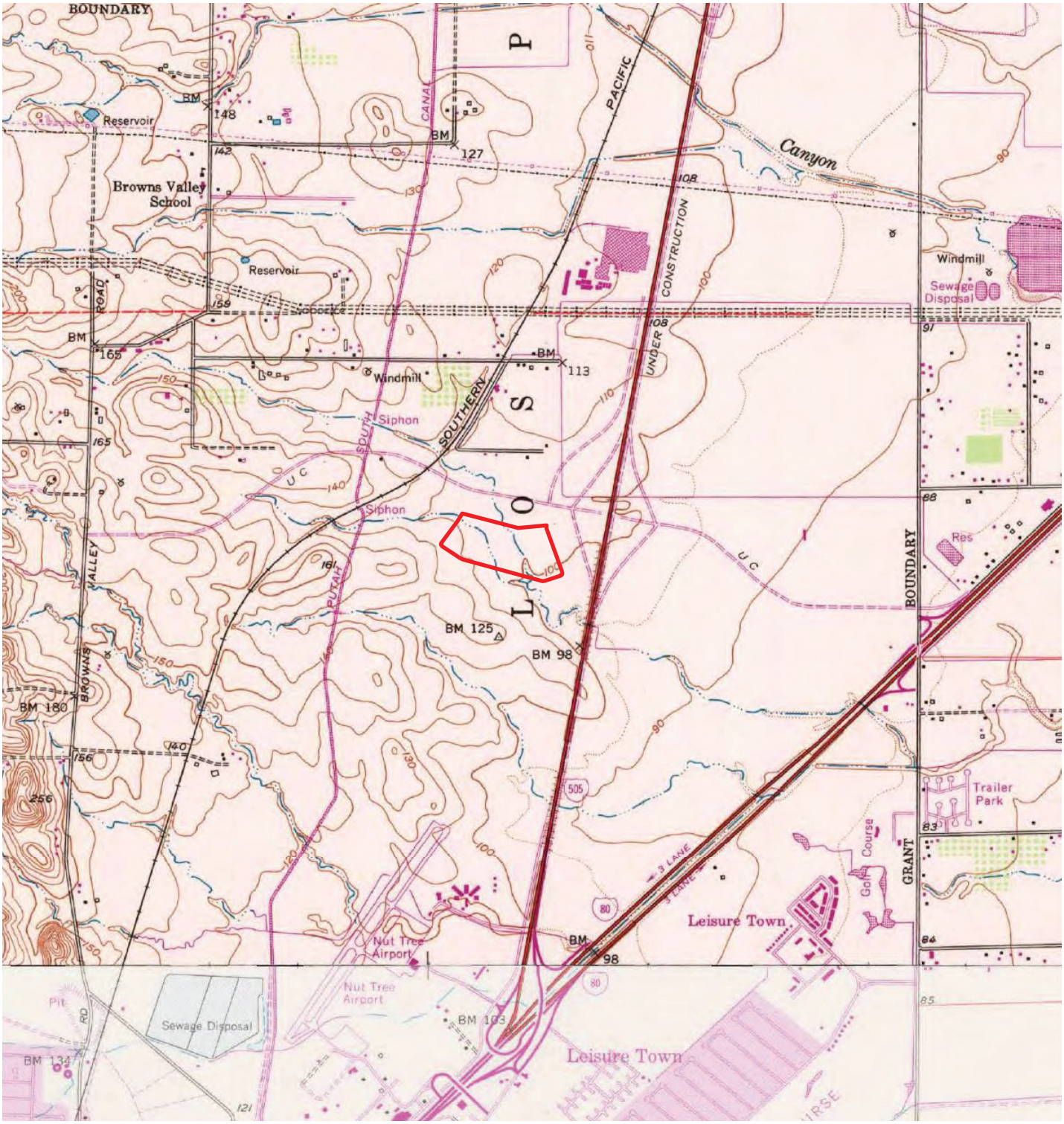
TOPO MAP - 2012

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE

VACAVILLE

PREPARED FOR:	**Buzz Oates, LLC.**		
PROJ. MGR:	**Rachel Robles**	**DATE:**	**1/3/18**
DRAWN BY:	**AC**	**PROJ. #:**	**257-005**



Boundaries are approximate

Allendale Quadrangle, California

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

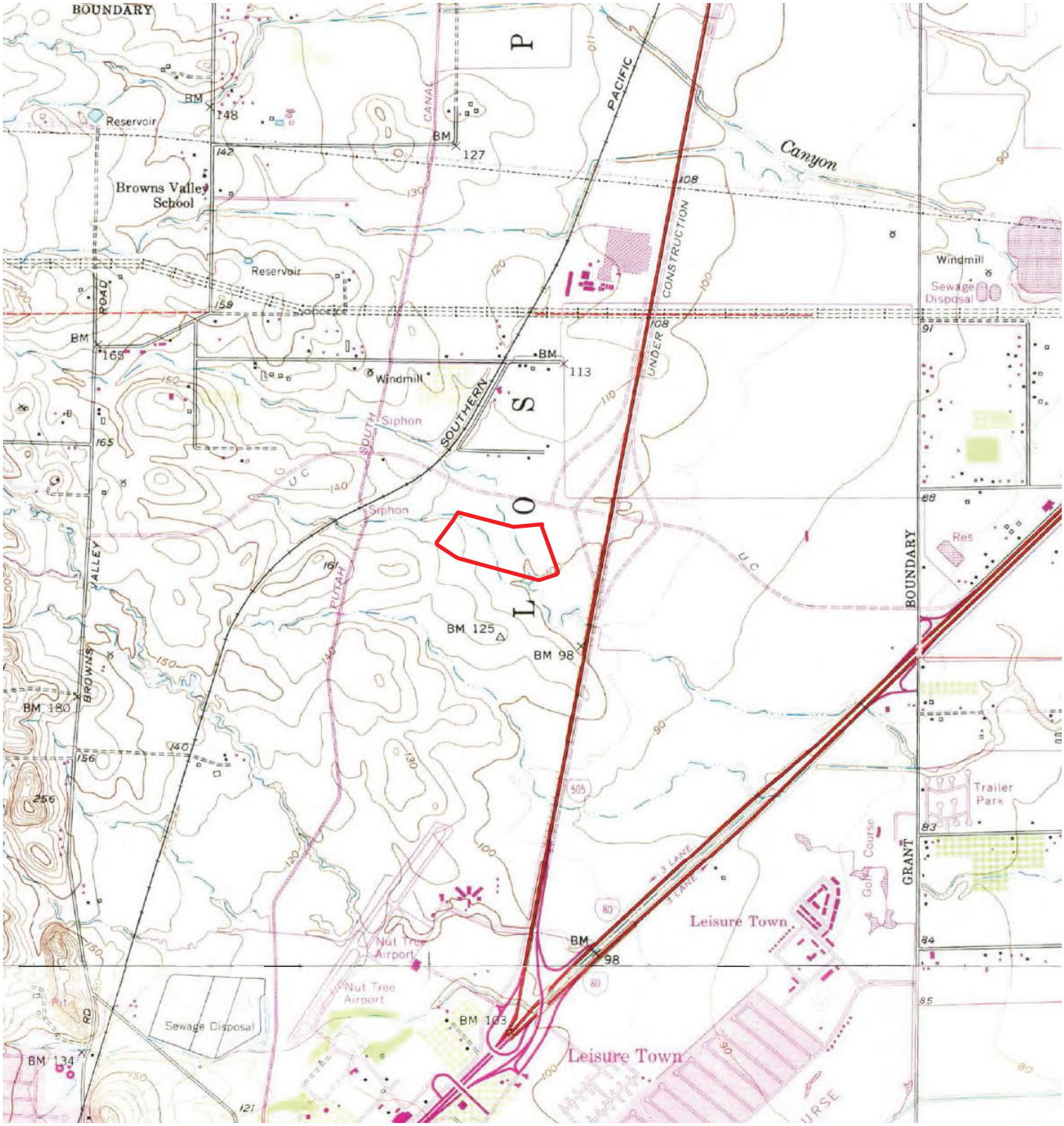
TOPO MAP - 1978

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE

VACAVILLE

PREPARED FOR:	**Buzz Oates, LLC.**		
PROJ. MGR:	**Rachel Robles**	**DATE:**	**1/3/18**
DRAWN BY:	**AC**	**PROJ. #:**	**257-005**



Boundaries are approximate

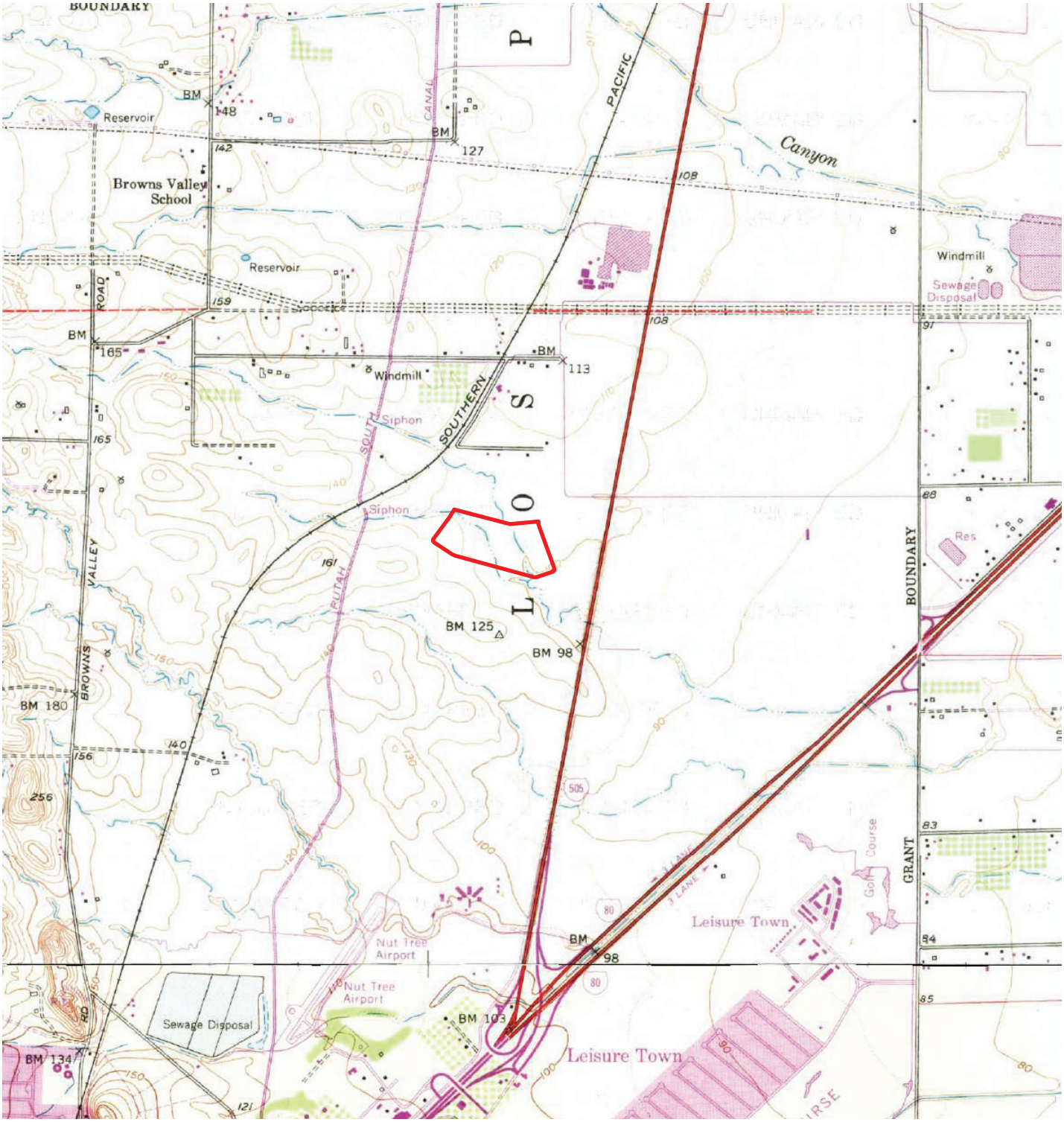
Allendale Quadrangle, California

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

TOPO MAP - 1973
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE

PREPARED FOR:	**Buzz Oates, LLC.**		
PROJ. MGR:	**Rachel Robles**	**DATE:**	**1/3/18**
DRAWN BY:	**AC**	**PROJ. #:**	**257-005**



Boundaries are approximate

Allendale Quadrangle, California

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

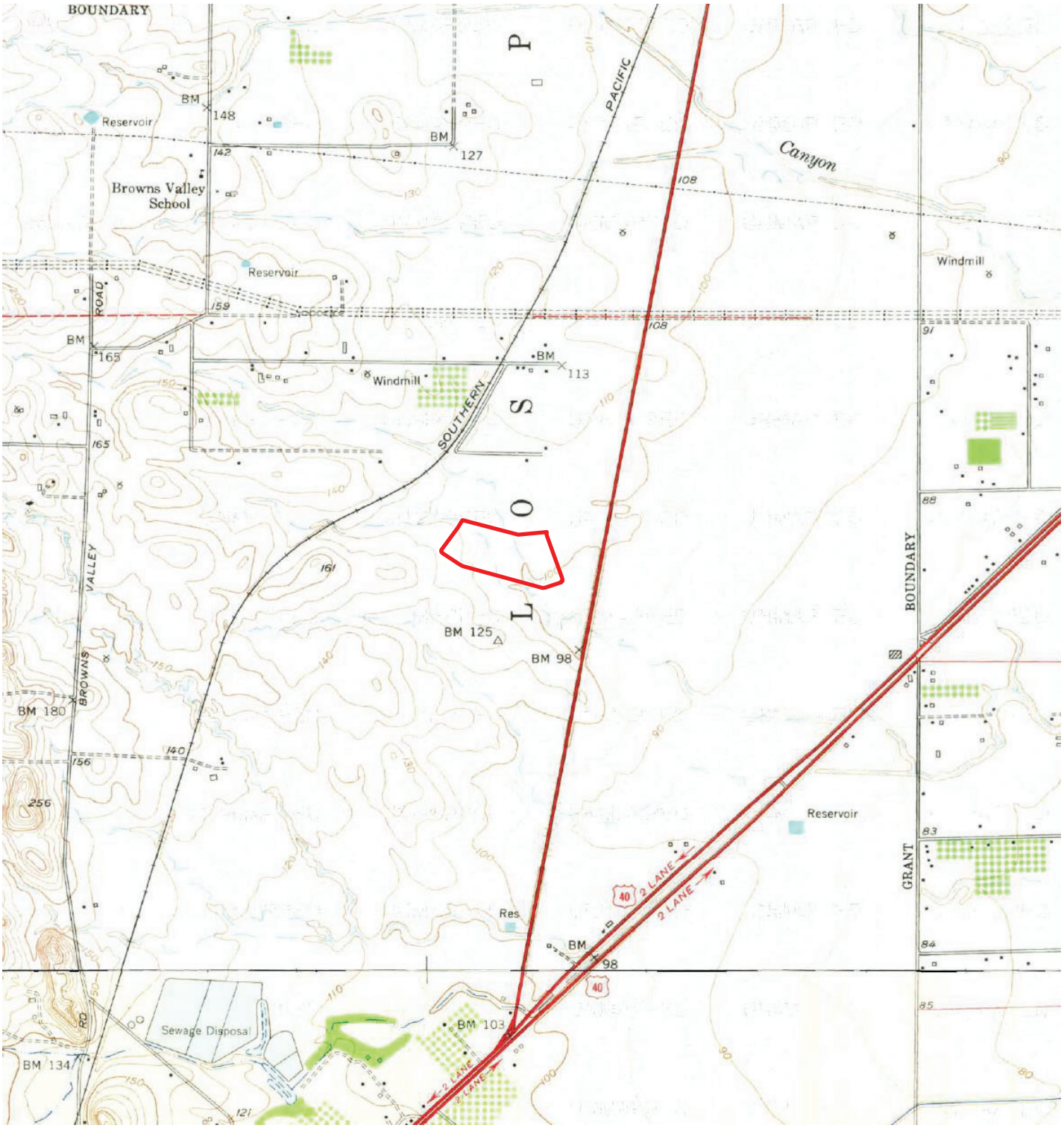
TOPO MAP - 1968

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE

VACAVILLE

PREPARED FOR:	**Buzz Oates, LLC.**		
PROJ. MGR:	**Rachel Robles**	**DATE:**	**1/3/18**
DRAWN BY:	**AC**	**PROJ. #:**	**257-005**



Boundaries are approximate

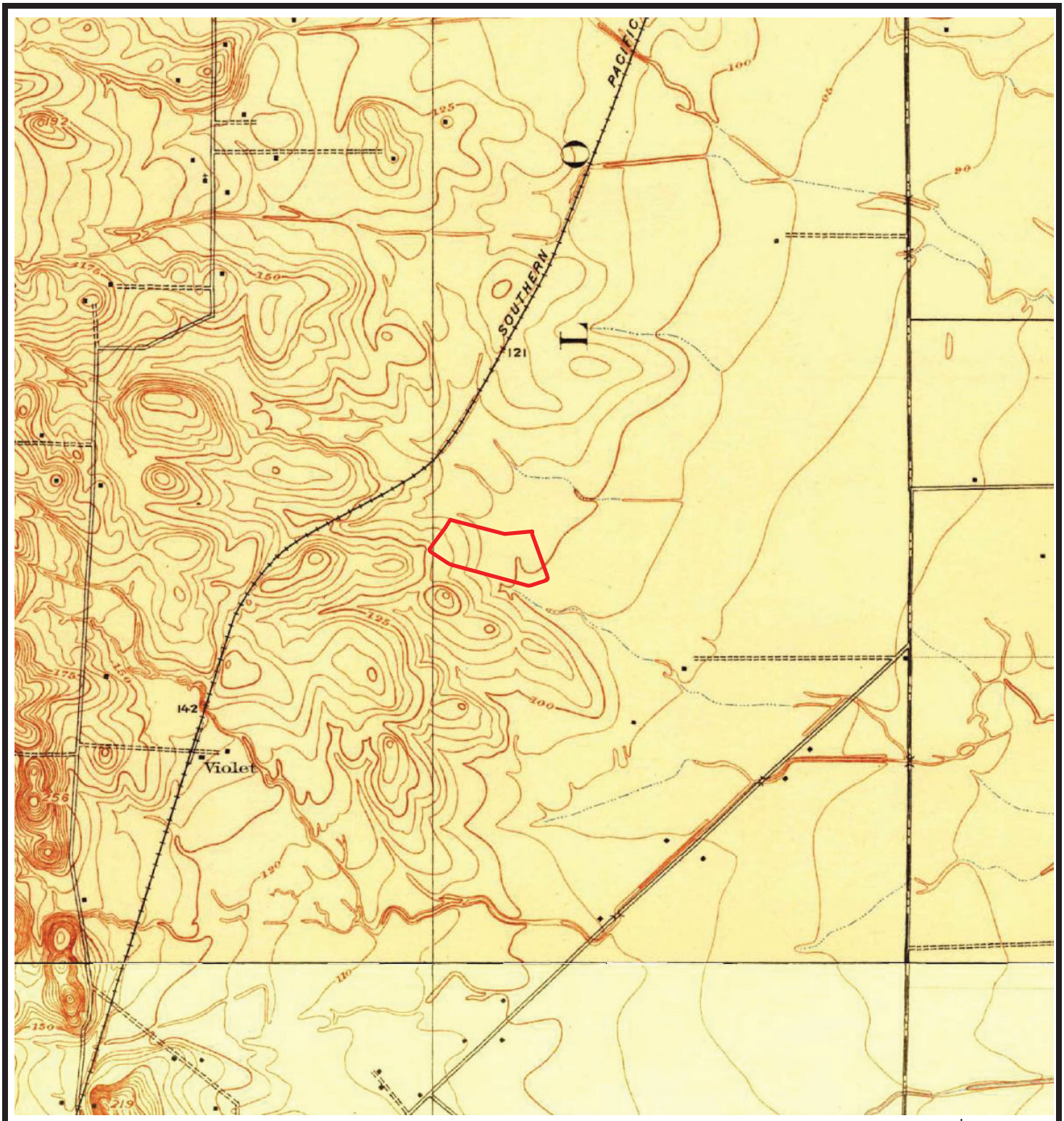
Allendale Quadrangle, California

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

TOPO MAP - 1953
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY
AVIATOR DRIVE AND EAST MONTE VISTA AVENUE
VACAVILLE

PREPARED FOR:	**Buzz Oates, LLC.**		
PROJ. MGR:	**Rachel Robles**	**DATE:**	**1/3/18**
DRAWN BY:	**AC**	**PROJ. #:**	**257-005**



Boundaries are approximate

Allendale Quadrangle, California

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

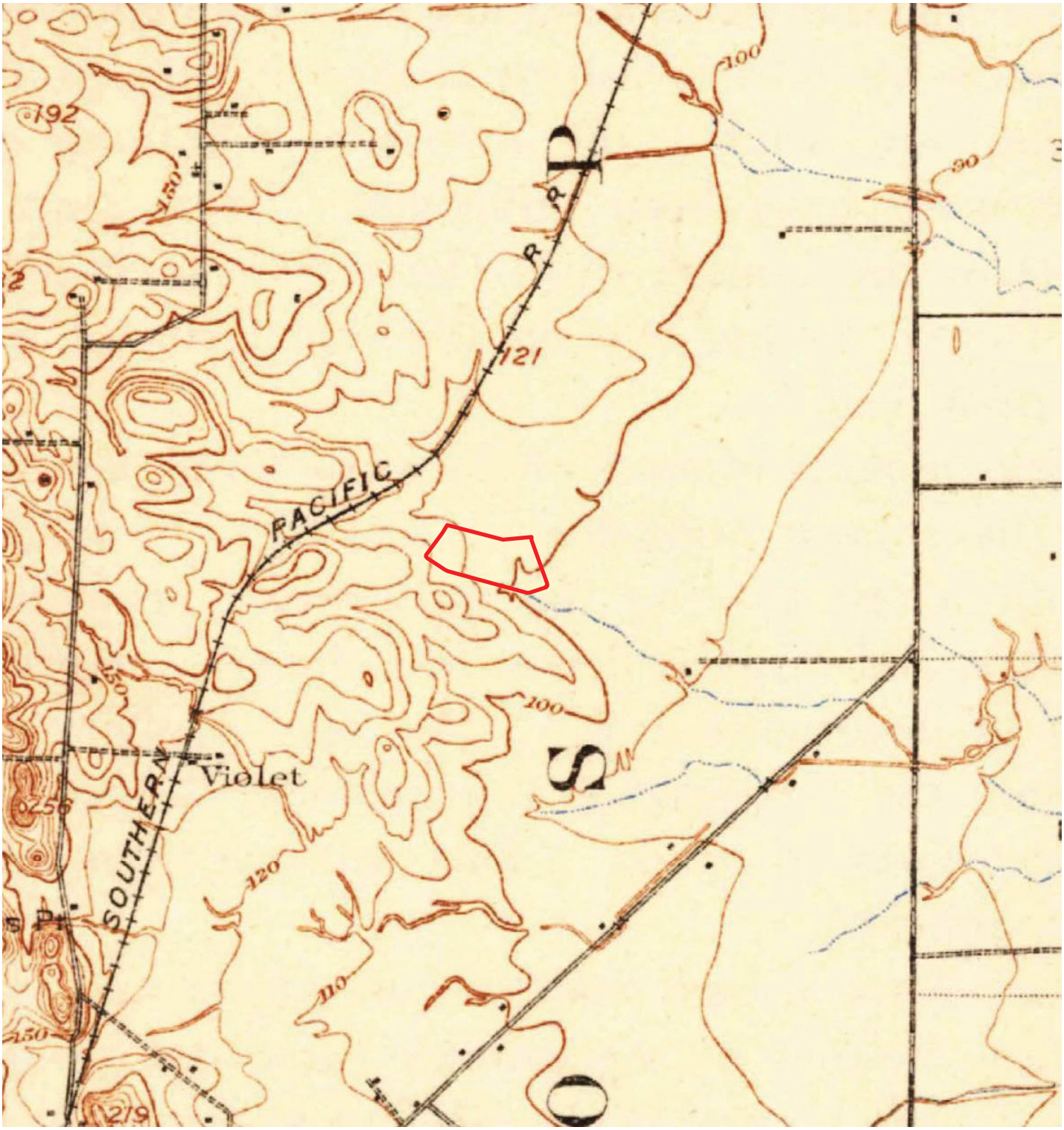
TOPO MAP - 1917

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE

VACAVILLE

PREPARED FOR:	**Buzz Oates, LLC.**		
PROJ. MGR:	**Rachel Robles**	**DATE:**	**1/3/18**
DRAWN BY:	**AC**	**PROJ. #:**	**257-005**



Boundaries are approximate

Allendale Quadrangle, California

NORTH

Brusca Associates, Inc.
Environmental Engineering Geology

TOPO MAP - 1908

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE PROPERTY

AVIATOR DRIVE AND EAST MONTE VISTA AVENUE

VACAVILLE

PREPARED FOR:	**Buzz Oates, LLC.**		
PROJ. MGR:	**Rachel Robles**	**DATE:**	**1/3/18**
DRAWN BY:	**AC**	**PROJ. #:**	**257-005**

APPENDIX D – Agency Listings Database Report

Aviator Drive and East Monte Vista Avenue Property
Aviator Dr and E Monte Vista Ave
Vacaville, CA 95688

Inquiry Number: 5611248.2s
April 04, 2019

The EDR Radius Map™ Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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

AVIATOR DR AND E MONTE VISTA AVE
VACAVILLE, CA 95688

COORDINATES

Latitude (North):	38.3924050 - 38˚ 23' 32.65''
Longitude (West):	121.9558540 - 121˚ 57' 21.07''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	591186.1
UTM Y (Meters):	4249664.0
Elevation:	108 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5629044 ALLENDALE, CA
Version Date:	2012
South Map:	5619708 ELMIRA, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140606
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
AVIATOR DR AND E MONTE VISTA AVE
VACAVILLE, CA 95688

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	FULTON-PACIFIC	1060 AVIATOR DR	CERS HAZ WASTE, CERS	Higher	281, 0.053, SW
2	MAINTENANCE BUILDING	1090 AVIATOR DR	CERS HAZ WASTE, CERS	Higher	347, 0.066, WSW
A3	NOVARTIS PHARMACEUTI	2010 CESSNA DRIVE	RCRA-LQG	Higher	488, 0.092, WNW
A4	ELANCO US INC VACAVI	2010 CESSNA DR	RCRA NonGen / NLR	Higher	488, 0.092, WNW
A5	NOVARTIS PHARMACEUTI	2010 CESSNA DR	RCRA-SQG, FINDS, ECHO	Higher	488, 0.092, WNW
A6	RXD NOVA PHARMACEUTI	2010 CESSNA DR	CERS HAZ WASTE, CERS TANKS, CERS	Higher	488, 0.092, WNW
B7	VACA VALLEY EXCAVATI	2201 E MONTE VISTA A	CERS HAZ WASTE, CERS TANKS, CERS	Higher	822, 0.156, SSE
B8	VACA VALLEY EXCAVATI	2201 E MONTE VISTA A	AST	Higher	822, 0.156, SSE
C9	VACA VALLEY TRAVEL C	151 CROCKER DR	CERS HAZ WASTE, CERS TANKS, CERS	Lower	856, 0.162, NE
C10	VACA VALLEY TRAVEL C	151 CROCKER DR	UST	Lower	856, 0.162, NE
11	REPORTER THE	916 COTTING LN	RCRA-SQG, FINDS	Higher	873, 0.165, NNE
12	MONTY'S AUTOMOTIVE I	803 VACA VALLEY PKWY	CERS HAZ WASTE, CERS	Higher	987, 0.187, NW
13	SUPERIOR SIGN SYSTEM	630 EUBANKS CT UNIT	RCRA-SQG, FINDS, ECHO, HAZNET	Higher	1092, 0.207, NW
D14	GOLDEN STATE FC LLC	300 CROCKER DR	RCRA-SQG	Higher	1103, 0.209, NE
D15	GOLDEN STATE FC LLC	300 CROCKER DR	CERS HAZ WASTE, NPDES, CERS	Higher	1103, 0.209, NE
16	INTERSTATE OIL COMPA	917 COTTING LANE	LUST, EMI, CERS	Higher	1351, 0.256, NNE
17	WABCO CALIF REPAIR C	4977 ALLISON PARKWAY	RCRA-SQG, CPS-SLIC	Higher	1807, 0.342, West
18	BIG O TIRES NORTHERN	877 COTTING COURT	LUST, HIST UST, CHMIRS, HIST CORTESE, CERS	Higher	1893, 0.359, North
19	SPRIG CIRCUITS, INC.	765-A EUBANKS DRIVE	RCRA-LQG, ENVIROSTOR	Higher	1905, 0.361, NNW
20	COURT GALVANIZING, I	4937 ALLISON PARKWAY	RCRA-LQG, ENVIROSTOR, NPDES, CIWQS	Higher	2314, 0.438, WSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

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-CESQG ..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ..... Land Use Control Information System
US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - 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
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

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
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
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

Local Lists of Registered Storage Tanks

SWEEPS UST..... SWEEPS UST Listing

HIST UST	Hazardous Substance Storage Container Database
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
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
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information

EXECUTIVE SUMMARY

FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
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)
WIP	Well Investigation Program Case List
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List
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-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/01/2018 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NOVARTIS PHARMACEUTI EPA ID:: CAL000319264	2010 CESSNA DRIVE	WNW 0 - 1/8 (0.092 mi.)	A3	20

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/01/2018 has revealed that there are 4 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NOVARTIS PHARMACEUTI EPA ID:: CAL000114976	***2010 CESSNA DR***	***WNW 0 - 1/8 (0.092 mi.)***	***A5***	***39***
REPORTER THE EPA ID:: CAR000004291	***916 COTTING LN***	***NNE 1/8 - 1/4 (0.165 mi.)***	***11***	***126***
SUPERIOR SIGN SYSTEM EPA ID:: CAD983647827	***630 EUBANKS CT UNIT***	***NW 1/8 - 1/4 (0.207 mi.)***	***13***	***130***
GOLDEN STATE FC LLC EPA ID:: CAR000276162	300 CROCKER DR	NE 1/8 - 1/4 (0.209 mi.)	D14	134

EXECUTIVE SUMMARY

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 01/28/2019 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SPRIG CIRCUITS, INC. Facility Id: 71002695 Status: Inactive - Needs Evaluation	***765-A EUBANKS DRIVE***	***NNW 1/4 - 1/2 (0.361 mi.)***	***19***	***155***
COURT GALVANIZING, I Facility Id: 71003336 Status: Inactive - Needs Evaluation	***4937 ALLISON PARKWAY***	***WSW 1/4 - 1/2 (0.438 mi.)***	***20***	***163***

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
INTERSTATE OIL COMPA Database: SOLANO CO. LUST, Date of Government Version: 11/29/2018 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 50085 Global Id: T10000000211 Facility Status: I	***917 COTTING LANE***	***NNE 1/4 - 1/2 (0.256 mi.)***	***16***	***145***
BIG O TIRES NORTHERN Database: LUST REG 5, Date of Government Version: 07/01/2008 Database: SOLANO CO. LUST, Date of Government Version: 11/29/2018 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Status: Case Closed Facility Id: 50096 Global Id: T0609500418 Facility Status: I	***877 COTTING COURT***	***N 1/4 - 1/2 (0.359 mi.)***	***18***	***151***

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 is 1 CPS-SLIC site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WABCO CALIF REPAIR C	***4977 ALLISON PARKWAY***	***W 1/4 - 1/2 (0.342 mi.)***	***17***	***150***
Database: SLIC REG 5, Date of Government Version: 04/01/2005				

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 is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
VACA VALLEY TRAVEL C	151 CROCKER DR	NE 1/8 - 1/4 (0.162 mi.)	C10	125
Database: SOLANO CO. UST, Date of Government Version: 03/05/2019				
Database: UST, Date of Government Version: 12/10/2018				
Facility Id: 501901				
Facility Status: A				
Facility Id: 48-000-501901				

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VACA VALLEY EXCAVATI	2201 E MONTE VISTA A	SSE 1/8 - 1/4 (0.156 mi.)	B8	98
Database: AST, Date of Government Version: 07/06/2016				

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 10/22/2018 has revealed that there

are 7 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FULTON-PACIFIC	*1060 AVIATOR DR*	*SW 0 - 1/8 (0.053 mi.)*	*1*	*8*
MAINTENANCE BUILDING	*1090 AVIATOR DR*	*WSW 0 - 1/8 (0.066 mi.)*	*2*	*15*
RXD NOVA PHARMACEUTI	*2010 CESSNA DR*	*WNW 0 - 1/8 (0.092 mi.)*	*A6*	*41*
VACA VALLEY EXCAVATI	*2201 E MONTE VISTA A*	*SSE 1/8 - 1/4 (0.156 mi.)*	*B7*	*88*
MONTY'S AUTOMOTIVE I	*803 VACA VALLEY PKWY*	*NW 1/8 - 1/4 (0.187 mi.)*	*12*	*127*
GOLDEN STATE FC LLC	*300 CROCKER DR*	*NE 1/8 - 1/4 (0.209 mi.)*	*D15*	*137*

Lower Elevation	Address	Direction / Distance	Map ID	Page
VACA VALLEY TRAVEL C	*151 CROCKER DR*	*NE 1/8 - 1/4 (0.162 mi.)*	*C9*	*99*

Local Lists of Registered Storage Tanks

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 10/22/2018 has revealed that there are 3 CERS TANKS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RXD NOVA PHARMACEUTI	*2010 CESSNA DR*	*WNW 0 - 1/8 (0.092 mi.)*	*A6*	*41*
VACA VALLEY EXCAVATI	*2201 E MONTE VISTA A*	*SSE 1/8 - 1/4 (0.156 mi.)*	*B7*	*88*

Lower Elevation	Address	Direction / Distance	Map ID	Page
VACA VALLEY TRAVEL C	*151 CROCKER DR*	*NE 1/8 - 1/4 (0.162 mi.)*	*C9*	*99*

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 03/01/2018 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ELANCO US INC VACAVI EPA ID:: CAR000233288	2010 CESSNA DR	WNW 0 - 1/8 (0.092 mi.)	A4	26

EXECUTIVE SUMMARY

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

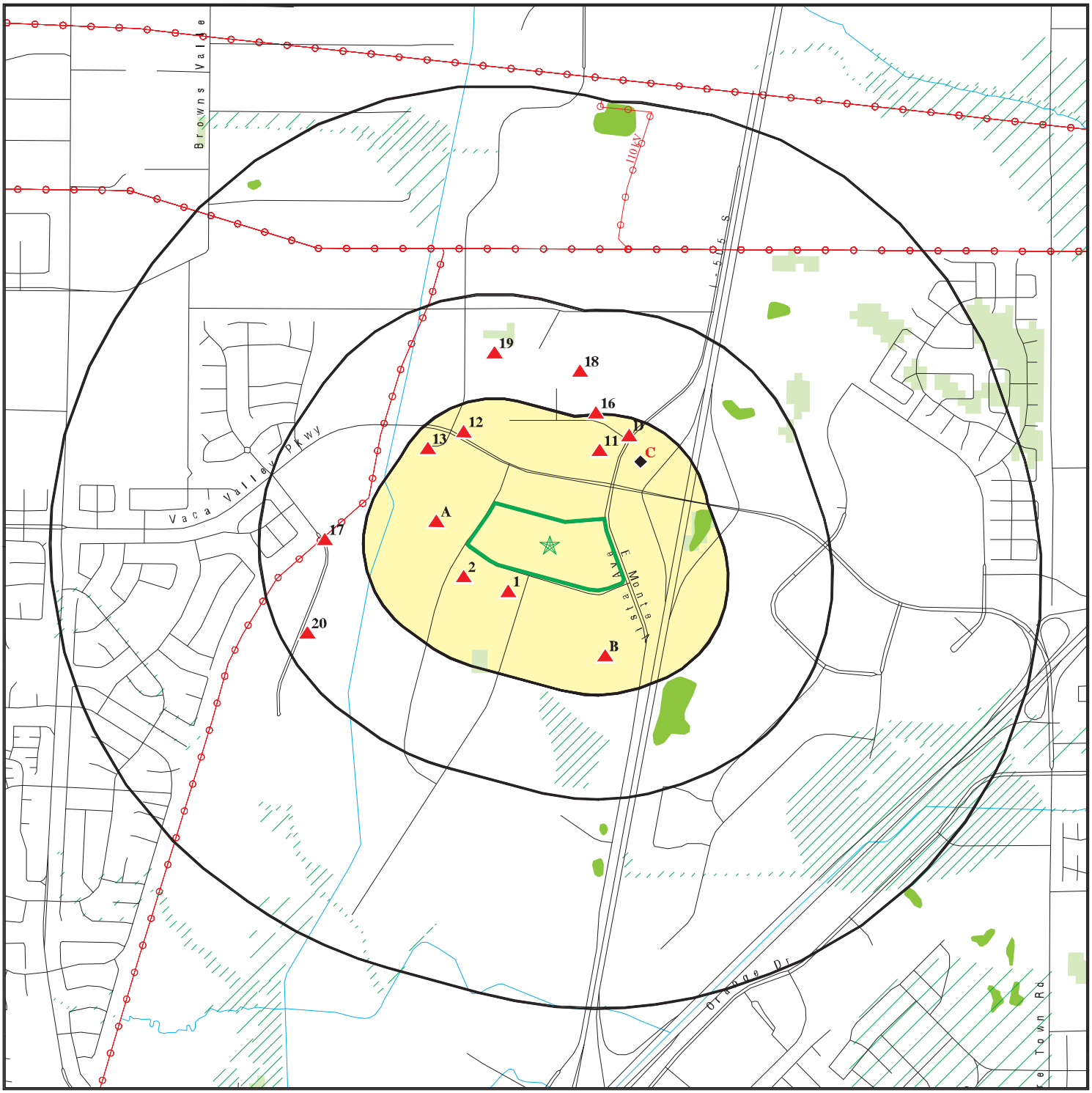
A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BIG O TIRES NORTHERN Reg Id: 480178	***877 COTTING COURT***	***N 1/4 - 1/2 (0.359 mi.)***	***18***	***151***

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5611248.2S



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

100-year flood zone

500-year flood zone

National Wetland Inventory

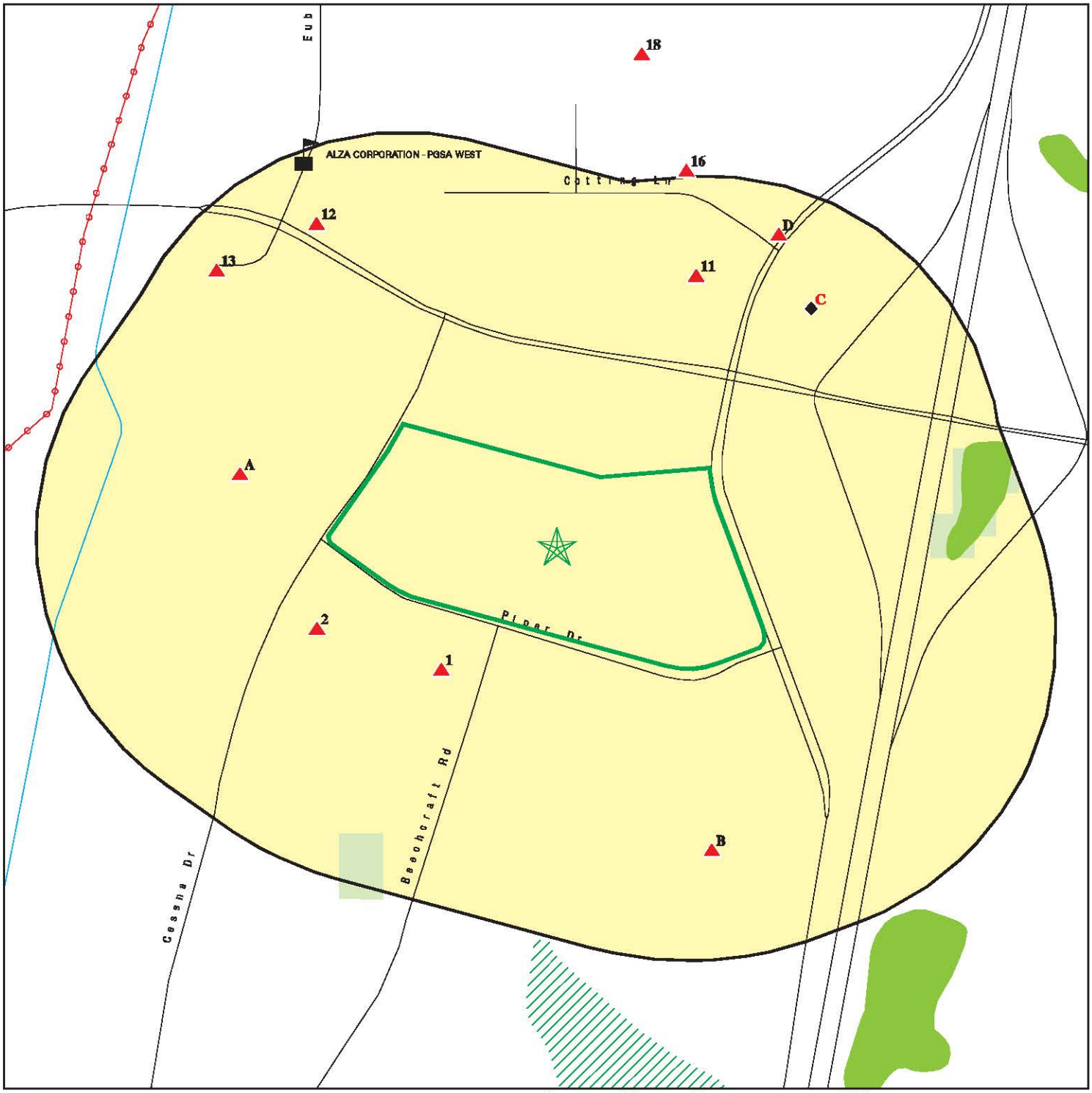
State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Aviator Drive and East Monte Vista Avenue Property	CLIENT:	Brusca Associates, Inc.
ADDRESS:	Aviator Dr and E Monte Vista Ave Vacaville CA 95688	CONTACT:	Alycia Cridebring
		INQUIRY #:	5611248.2s
LAT/LONG:	38.392405 / 121.955854	DATE:	April 04, 2019 2:04 pm

DETAIL MAP - 5611248.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Aviator Drive and East Monte Vista Avenue Property	CLIENT: Brusca Associates, Inc.
ADDRESS: Aviator Dr and E Monte Vista Ave Vacaville CA 95688	CONTACT: Alycia Cridebring INQUIRY #: 5611248.2s
LAT/LONG: 38.392405 / 121.955854	DATE: April 04, 2019 2:09 pm

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	0.001		0	NR	NR	NR	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		1	0	NR	NR	NR	1
RCRA-SQG	0.250		1	3	NR	NR	NR	4
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	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	0	NR	2
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	1	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		0	1	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN 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	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		3	4	NR	NR	NR	7
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		1	2	NR	NR	NR	3
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	1	NR	NR	1
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	7	11	6	0	0	24

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1 SW < 1/8 0.053 mi. 281 ft. | **FULTON-PACIFIC 1060 AVIATOR DR VACAVILLE, CA 95688** | **CERS HAZ WASTE CERS** | **S121766962 N/A**

Relative: Higher

Actual: 123 ft.

CERS HAZ WASTE:

Site ID:	362497
CERS ID:	10654105
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	362497
Site Name:	Fulton-Pacific
Violation Date:	11-17-2015
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.
Violation Notes:	Returned to compliance on 01/12/2016.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	362497
Site Name:	Fulton-Pacific
Violation Date:	11-17-2015
Citation:	HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Description:	Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 01/12/2016.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	362497
Site Name:	Fulton-Pacific
Violation Date:	11-17-2015
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:	Returned to compliance on 01/12/2016.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	362497
Site Name:	Fulton-Pacific
Violation Date:	11-17-2015
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 01/12/2016. Observed incomplete label.

FULTON-PACIFIC (Continued) **S121766962**

Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 362497
Site Name: Fulton-Pacific
Violation Date: 11-17-2015
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 01/12/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 362497
Site Name: Fulton-Pacific
Violation Date: 11-17-2015
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 01/12/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 362497
Site Name: Fulton-Pacific
Violation Date: 11-17-2015
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes: Returned to compliance on 01/12/2016.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-17-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-17-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported

FULTON-PACIFIC (Continued) **S121766962**

Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Document Preparer
Entity Name:	Elisa Parker
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:	Elisa Parker
Entity Title:	Not reported
Affiliation Address:	1060 Piper Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(707) 446-6020

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1060 Piper Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Rett Schuler
Entity Title:	General Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	Rett Schuler

FULTON-PACIFIC (Continued) **S121766962**

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:	(707) 446-6020

Affiliation Type Desc:	Parent Corporation
Entity Name:	Fulton-Pacific
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Fulton-Pacific Packaging Company
Entity Title:	Not reported
Affiliation Address:	1060 Piper Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 446-6020

CERS TANKS:

Site ID:	362497
CERS ID:	10654105
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	362497
Site Name:	Fulton-Pacific
Violation Date:	11-17-2015
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.
Violation Notes:	Returned to compliance on 01/12/2016.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	362497
Site Name:	Fulton-Pacific
Violation Date:	11-17-2015
Citation:	HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Description:	Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 01/12/2016.
Violation Division:	Solano County Environmental Health

FULTON-PACIFIC (Continued) **S121766962**

Violation Program: HMRRP
Violation Source: CERS

Site ID: 362497
Site Name: Fulton-Pacific
Violation Date: 11-17-2015
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: Returned to compliance on 01/12/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 362497
Site Name: Fulton-Pacific
Violation Date: 11-17-2015
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 01/12/2016. Observed incomplete label.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 362497
Site Name: Fulton-Pacific
Violation Date: 11-17-2015
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 01/12/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 362497
Site Name: Fulton-Pacific
Violation Date: 11-17-2015
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 01/12/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

FULTON-PACIFIC (Continued) **S121766962**

Site ID:	362497
Site Name:	Fulton-Pacific
Violation Date:	11-17-2015
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes:	Returned to compliance on 01/12/2016.
Violation Division:	Solano County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-17-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-17-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Document Preparer
Entity Name:	Elisa Parker
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:	Elisa Parker
Entity Title:	Not reported
Affiliation Address:	1060 Piper Dr
Affiliation City:	Vacaville

FULTON-PACIFIC (Continued) **S121766962**

Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(707) 446-6020

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1060 Piper Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Rett Schuler
Entity Title:	General Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	Rett Schuler
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:	(707) 446-6020

Affiliation Type Desc:	Parent Corporation
Entity Name:	Fulton-Pacific
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Fulton-Pacific Packaging Company
Entity Title:	Not reported
Affiliation Address:	1060 Piper Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 446-6020

2 WSW < 1/8 0.066 mi. 347 ft. | **MAINTENANCE BUILDING 1090 AVIATOR DR VACAVILLE, CA 95688** | **CERS HAZ WASTE CERS** | **S121786159 N/A**

Relative: Higher

Actual: 130 ft.

CERS HAZ WASTE:

Site ID:	46152
CERS ID:	10397260
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	46152
Site Name:	Maintenance Building
Violation Date:	06-28-2017
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 09/21/2017.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	46152
Site Name:	Maintenance Building
Violation Date:	06-28-2017
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 09/21/2017.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-28-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-28-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health

MAINTENANCE BUILDING (Continued) **S121786159**

Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Environmental Contact
Entity Name:	Victor Fortenberry
Entity Title:	Not reported
Affiliation Address:	1090 Aviator Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(707) 455-4028

Affiliation Type Desc:	Operator
Entity Name:	General Manager
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:	(707) 249-5488

Affiliation Type Desc:	Parent Corporation
Entity Name:	Solano Irrigation District
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Victor Fortenberry
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:	Identification Signer
Entity Name:	Victor Fortenberry
Entity Title:	Safety Officer/Risk Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

MAINTENANCE BUILDING (Continued) **S121786159**

Affiliation Type Desc:	Legal Owner
Entity Name:	Solano Irrigation District
Entity Title:	Not reported
Affiliation Address:	810 Vaca Valley Parkway, Ste 201
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 448-6847

Affiliation Type Desc:	Property Owner
Entity Name:	Solano Irrigation District
Entity Title:	Not reported
Affiliation Address:	1090 Aviator Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 448-6847

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	810 Vaca Valley Parkway, Ste 201
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

CERS TANKS:

Site ID:	46152
CERS ID:	10397260
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	46152
Site Name:	Maintenance Building
Violation Date:	06-28-2017
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 09/21/2017.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	46152
Site Name:	Maintenance Building
Violation Date:	06-28-2017
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.

MAINTENANCE BUILDING (Continued) **S121786159**

Violation Notes: Returned to compliance on 09/21/2017.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-28-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-28-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Solano County Env Health
Entity Title: Not reported
Affiliation Address: 675 Texas Street, Suite 5500
Affiliation City: Fairfield
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94533
Affiliation Phone: (707) 784-6765

Affiliation Type Desc: Environmental Contact
Entity Name: Victor Fortenberry
Entity Title: Not reported
Affiliation Address: 1090 Aviator Dr
Affiliation City: Vacaville
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95688
Affiliation Phone: (707) 455-4028

Affiliation Type Desc: Operator
Entity Name: General Manager
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: (707) 249-5488

Affiliation Type Desc: Parent Corporation

MAINTENANCE BUILDING (Continued) **S121786159**

Entity Name:	Solano Irrigation District
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Victor Fortenberry
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:	Identification Signer
Entity Name:	Victor Fortenberry
Entity Title:	Safety Officer/Risk Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Solano Irrigation District
Entity Title:	Not reported
Affiliation Address:	810 Vaca Valley Parkway, Ste 201
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 448-6847

Affiliation Type Desc:	Property Owner
Entity Name:	Solano Irrigation District
Entity Title:	Not reported
Affiliation Address:	1090 Aviator Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 448-6847

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	810 Vaca Valley Parkway, Ste 201
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688

MAINTENANCE BUILDING (Continued) **S121786159**

Affiliation Phone: Not reported

A3 WNW < 1/8 0.092 mi. 488 ft. **NOVARTIS PHARMACEUTICAL 2010 CESSNA DRIVE VACAVILLE, CA 95688** **RCRA-LQG** **1012175791 CAL000319264**

Site 1 of 4 in cluster A

Relative: Higher

Actual: 126 ft.

RCRA-LQG:

Date form received by agency:	03/19/2013
Facility name:	NOVARTIS PHARMACEUTICAL
Facility address:	2010 CESSNA DRIVE VACAVILLE, CA 95688
EPA ID:	CAL000319264
Mailing address:	CESSNA DRIVE VACAVILLE, CA 95688
Contact:	ROB KLASSEN
Contact address:	CESSNA DRIVE VACAVILLE, CA 95688
Contact country:	US
Contact telephone:	707-453-2245
Contact email:	ROBERT.KLASSEN@NOVARTIS.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	NOVARTIS PHARMACEUTICAL
Owner/operator address:	ONE HEALTH PLAZA EAST HANOVER, NJ 07936
Owner/operator country:	Not reported
Owner/operator telephone:	862-778-8300
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	04/20/2006
Owner/Op end date:	Not reported
Owner/operator name:	DAVID SERP
Owner/operator address:	CESSNA DRIVE VACAVILLE, CA 95688
Owner/operator country:	Not reported
Owner/operator telephone:	707-452-4913

NOVARTIS PHARMACEUTICAL (Continued) **1012175791**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 04/20/2006
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D005
. Waste name: BARIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008

NOVARTIS PHARMACEUTICAL (Continued) **1012175791**

. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED 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: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P105

NOVARTIS PHARMACEUTICAL (Continued) **1012175791**

. Waste name: SODIUM AZIDE

. Waste code: U002
. Waste name: ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U004
. Waste name: ACETOPHENONE

. Waste code: U007
. Waste name: ACRYLAMIDE

. Waste code: U108
. Waste name: 1,4-DIETHYLENEOXIDE

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

Historical Generators:
Date form received by agency: 09/15/2010
Site name: NOVARTIS - FORMALLY CHIRON CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D022

NOVARTIS PHARMACEUTICAL (Continued) **1012175791**

. Waste name: CHLOROFORM

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED 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: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: U044
. Waste name: CHLOROFORM

. Waste code: U080
. Waste name: METHANE, DICHLORO-

. Waste code: U117
. Waste name: ETHANE, 1,1'-OXYBIS-(I)

. Waste code: U154
. Waste name: METHANOL (I)

. Waste code: U218
. Waste name: ETHANETHIOAMIDE

. Waste code: U236
. Waste name: 2,7-NAPHTHALENEDISULFONIC ACID, 3,3'-[(3,3'-DIMETHYL[1,1'-BIPHENYL]-4,4'-DIYL)BIS(AZO)BIS[5-AMINO-4-HYDROXY]-, TETRASODIUM SALT

. Waste code: U404
. Waste name: ETHANAMINE, N,N-DIETHYL- (OR) TRIETHYLAMINE

Date form received by agency: 03/27/2008
Site name: NOVARTIS - FORMALLY CHIRON CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN

NOVARTIS PHARMACEUTICAL (Continued) **1012175791**

OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005

NOVARTIS PHARMACEUTICAL (Continued) **1012175791**

. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED 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: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U007
. Waste name: ACRYLAMIDE

. Waste code: U080
. Waste name: METHANE, DICHLORO-

. Waste code: U117
. Waste name: ETHANE, 1,1'-OXYBIS-(I)

. Waste code: U144
. Waste name: ACETIC ACID, LEAD(2+) SALT

Violation Status: No violations found

A4 WNW < 1/8 0.092 mi. 488 ft. **ELANCO US INC VACAVILLE SITE** **RCRA NonGen / NLR** **1015753007**
2010 CESSNA DR **CAR000233288**
VACAVILLE, CA 95688

Site 2 of 4 in cluster A

Relative: Higher
Actual: 126 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/12/2018
Facility name:	ELANCO US INC VACAVILLE SITE
Facility address:	2010 CESSNA DR VACAVILLE, CA 95688
EPA ID:	CAR000233288
Mailing address:	CESSNA DR VACAVILLE, CA 95688
Contact:	SHELLY SHOPE
Contact address:	INNOVATION WAY DROP CODE EL05 GREENFIELD, IN 46410
Contact country:	US
Contact telephone:	317-651-5295
Contact email:	SHOPE_SHELLY_H@ELANCO.COM
EPA Region:	09
Land type:	Private
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	ELANCO US INC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 11/01/2015
Owner/Op end date: Not reported

Owner/operator name: ELANCO US INC
Owner/operator address: INNOVATION WAY DROP CODE EL05
GREENFIELD, IN 46410
Owner/operator country: US
Owner/operator telephone: 317-651-5295
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 11/01/2015
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: P105
. Waste name: SODIUM AZIDE

Historical Generators:
Date form received by agency: 12/02/2015
Site name: ELANCO US INC VACAVILLE SITE
Classification: Small Quantity Generator

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D008
. Waste name: LEAD

. Waste code: D009

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

. Waste name: MERCURY

. Waste code: P105
. Waste name: SODIUM AZIDE

Date form received by agency: 09/26/2014
Site name: NOVARTIS ANIMAL HEALTH INC VACAVILLE SITE
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 132
. Waste name: Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals)

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 512
. Waste name: Other empty containers 30 gallons or more

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 801
. Waste name: Waste potentially containing dioxins

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET,

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D005
. Waste name: BARIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D009
. Waste name: MERCURY

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED 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: P105
. Waste name: SODIUM AZIDE

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U117
. Waste name: ETHANE, 1,1'-OXYBIS-(I)

Date form received by agency: 03/01/2014
Site name: NOVARTIS PHARMACEUTICALS CORPORATION
Classification: Large Quantity Generator

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

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 NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED 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: P105
. Waste name: SODIUM AZIDE

Date form received by agency: 01/14/2013
Site name: NOVARTIS PHARMACEUTICAL
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 123
. Waste name: Unspecified alkaline solution

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 792
. Waste name: Liquids with pH < 2 with metals

. Waste code: D001

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D005
. Waste name: BARIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED 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: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U002
. Waste name: ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U007
. Waste name: ACRYLAMIDE

. Waste code: U044
. Waste name: CHLOROFORM

. Waste code: U080
. Waste name: METHANE, DICHLORO-

. Waste code: U108
. Waste name: 1,4-DIETHYLENEOXIDE

. Waste code: U117
. Waste name: ETHANE, 1,1'-OXYBIS-(I)

. Waste code: U122
. Waste name: FORMALDEHYDE

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U144
. Waste name: ACETIC ACID, LEAD(2+) SALT

. Waste code: U154
. Waste name: METHANOL (I)

Date form received by agency: 12/10/2012
Site name: NOVARTIS PHARMACEUTICAL
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 123
. Waste name: Unspecified alkaline solution

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 792
. Waste name: Liquids with pH < 2 with metals

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET,

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D005
. Waste name: BARIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED 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 NON-HALOGENATED 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: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U002
. Waste name: ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U007
. Waste name: ACRYLAMIDE

. Waste code: U044
. Waste name: CHLOROFORM

. Waste code: U080
. Waste name: METHANE, DICHLORO-

. Waste code: U108
. Waste name: 1,4-DIETHYLENEOXIDE

. Waste code: U117
. Waste name: ETHANE, 1,1'-OXYBIS-(I)

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U144

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

. Waste name: ACETIC ACID, LEAD(2+) SALT

. Waste code: U154
. Waste name: METHANOL (I)

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 10/29/2012
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 10/29/2012
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 10/29/2012
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 01/22/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 103284
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 04/27/2017
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/03/2015

ELANCO US INC VACAVILLE SITE (Continued) **1015753007**

Evaluation:	NOT A SIGNIFICANT NON-COMPLIER
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	10/29/2012
Evaluation:	SIGNIFICANT NON-COMPLIER
Area of violation:	Generators - Pre-transport
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	10/29/2012
Evaluation:	SIGNIFICANT NON-COMPLIER
Area of violation:	Generators - General
Date achieved compliance:	Not reported
Evaluation lead agency:	State

A5
WNW
< 1/8
0.092 mi.
488 ft.

NOVARTIS PHARMACEUTICAL
2010 CESSNA DR
VACAVILLE, CA 95688

RCRA-SQG **1008194521**
FINDS **CAL000114976**
ECHO

Site 3 of 4 in cluster A

Relative:
Higher

Actual:
126 ft.

RCRA-SQG:

Date form received by agency:	09/02/2004
Facility name:	CHIRON CORP VACAVILLE MAN FAC
Facility address:	2010 CESSNA DR VACAVILLE, CA 95688
EPA ID:	CAL000114976
Contact:	ROBERT KLASSEN
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	707-453-2245
Contact email:	ROBERT_KLASSEN@CHIRON.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CHIRON CORP
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1993
Owner/Op end date:	Not reported
Owner/operator name:	CHIRON CORP

NOVARTIS PHARMACEUTICAL (Continued) **1008194521**

Owner/operator address: CHIRON CORP
4560 HORTON ST, CA 94608
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1993
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/02/2004
Site name: CHIRON CORP VACAVILLE MAN FAC
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D005
. Waste name: BARIUM

. Waste code: D007

NOVARTIS PHARMACEUTICAL (Continued) **1008194521**

. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

Violation Status: No violations found

FINDS:

Registry ID: 110038882787

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Registry ID: 110055668479

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1008194521
Registry ID: 110038882787
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110038882787

A6 **RXD NOVA PHARMACEUTICALS, INC.** **CERS HAZ WASTE** **S121787373**
WNW **2010 CESSNA DR** **CERS TANKS** **N/A**
< 1/8 **VACAVILLE, CA 95688** **CERS**
0.092 mi.
488 ft. **Site 4 of 4 in cluster A**

Relative: Higher
Actual: 126 ft.

CERS HAZ WASTE:
Site ID: 52778
CERS ID: 10131835
CERS Description: RCRA LQ HW Generator

Violations:
Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Citation: 19 CCR 4.5 2765.2(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2765.2(a)
Violation Description: Failure to develop, implement, and maintain at the stationary source an emergency response program that includes the following elements: 1. Procedures for informing and interfacing with the public and local emergency response agencies about accidental releases, emergency planning, and emergency response. 2. Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures. 3. Procedures and measures for emergency response after an accidental release of a regulated substance. 4. Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance are developed by the stationary source. 5. Training for all employees in relevant procedures and relevant aspects of the Incident Command System. 6. Procedures to review and update the emergency response plan to reflect changes at the stationary source are developed and employees are informed of these changes.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: HSC 6.95 25504(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(a)
Violation Description: Failure to complete and/or submit hazardous material inventory forms for all reportable hazardous materials on site.
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.6(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.6(a)
Violation Description: Failure to certify that they have evaluated compliance with the provisions of this article at least every three years to verify that the procedures and practices developed under this chapter are adequate and are being followed.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.3(a)(b) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.3(a)(b)
Violation Description: Failure to prepare written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

	process and address the following: 1. Initial startup; 2. Normal operations; 3. Temporary operations; 4. Emergency shutdown and operations; 5. Normal shutdown; 6. Startup following a normal or emergency shutdown or a major change that requires a hazard review; 7. Consequences of deviations and steps required to correct or avoid deviations; 8. Equipment inspections.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description:	Failure of business to report a release or threatened release of a hazardous material to the administering agency and CalEMA.
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.7(c) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.7(c)
Violation Description:	Failure to prepare a summary of the investigation at the conclusion of the investigation that includes at a minimum: 1. Date of incident; 2. Date investigation began; 3. Description of incident; 4. Factors that contributed to the incident; 5. Recommendations resulting from the investigation
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description:	Business Plan Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
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

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

	the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 01/22/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description:	Failure to complete the five-year accident history as provided in Section 2750.9
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	22 CCR 15 66265.192(k) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(k)
Violation Description:	Failure of the new hazardous waste tank assessment to include all of the following information: 1) Tank configuration (i.e., horizontal, vertical), material of construction, and gross capacity (in gallons); 2) Design standard(s), if available, according to which the tank and ancillary equipment were or will be constructed and all of the following information; A) Material of construction; B) material thickness and the method used to determine the thickness; C) description of tank system piping (material, diameter); D) description of any internal and external pumps; and E) sketch or drawing of tank including dimensions. 3) Documented age of the tank system (if tank was previously used), if available, (otherwise, an estimate of the age); 4) Description and evaluation of any leak detection equipment; 5) Description and evaluation of any corrosion protection equipment, devices, or material; 6) Description and evaluation of any spill prevention or overfill equipment; 7) Description and evaluation of secondary containment for the tank system (secondary containment must meet minimum standards as specified in subsections (j)(1) through (j)(3) of this section) including applicable secondary containment for ancillary equipment as required in subsection 66265.193(f); 8) Hazardous characteristics of the waste(s) that have been or will be handled; 9) Prior to placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, professional engineer, registered in California, either of whom is trained and experienced in the proper installation of tank systems, shall inspect the system or component for the presence of any of the following items and document in writing the results of the inspection: A) Weld cracks or breaks; B) scrapes of protective coatings; C) corrosion; D) any structural damage or inadequate construction or installation such as cracks, punctures, damaged fittings. All discrepancies shall be documented in the assessment and remedied before the tank syste

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Notes:	Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description:	Failure to prepare a worst-case release scenario analysis as provided in Section 2750.3
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4 2729.2(a)(3) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(3)
Violation Description:	Failure to complete and/or submit an annotated site map if required by CUPA.
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.1(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.1(a)
Violation Description:	Failure to compile and maintain the following up-to-date safety information related to the regulated substances, processes, and equipment: 1. Material Safety Data Sheets that meet the requirements of Section 5189 of Title 8 of CCR; 2. Maximum intended inventory of equipment in which the regulated substances are stored or processed; 3. Safe upper and lower temperatures, pressures, flows and compositions; 4. Equipment specifications; 5. Codes and standards used to design, build & operate the process.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	22 CCR 15 66265.192(h) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(h)
Violation Description:	Failure to obtain and maintain a written assessment reviewed and certified by an independent, qualified, professional engineer stating

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

the new hazardous waste tank system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system including the foundation, structural support, seams, connections, and pressure controls (if applicable) are suitably designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be transferred, stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. This assessment shall be obtained prior to placing the tank system in service, and shall be kept on file at the facility. The tank assessment shall be good for five years. This assessment shall also include, at a minimum, the following information: (1) Design standard(s) according to which the tank(s) and ancillary equipment are or will be constructed; (2) Hazardous characteristics of the waste(s) to be handled; (3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of: (A) Factors affecting the potential for corrosion, including but not limited to: 1. Soil moisture content; 2. Soil pH; 3. Soil sulfides level; 4. Soil resistivity; 5. Structure to soil potential; 6. Influence of nearby underground metal structures (e.g., piping); 7. Stray electric current; and, 8. Existing corrosion-protection measures (e.g., coating, cathodic protection), and (B) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following: 1. Corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic; 2. Corrosion-resistant coating (such as epoxy or f

Violation Notes: Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
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 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.5(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.5(a)
Violation Description: Failure to prepare and implement procedures to maintain the on-going mechanical integrity of the process equipment.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Program: CalARP
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-27-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-03-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations cited.
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-27-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-03-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2012
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Class I violations for failure to obtain P.E. certification and to protect piping and installation unapproved spill prevention relief valves
Eval Division: Solano County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-03-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations cited.
Eval Division: Solano County Environmental Health

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-29-2012
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Chemical inventory incomplete, site diagram inaccurate, notification procedures inadequate and unavailable, Failure to report a release
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-29-2012
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Violations include lack of Compliance Audits, no five year accident history, P&IDs had inconsistant notation, lack of written procedures for Ammonium Hydroxide drum unloading, storing, and removal from storage, failure to determine manufactureer's recommedended tank truck unloading hose life.Lack of incident investigation that meets Cal ARP regulations
Eval Division:	Solano County Environmental Health
Eval Program:	CalARP
Eval Source:	CERS

Enforcement Action:

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	CalARP
Enf Action Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HWLQG
Enf Action Source:	CERS

Coordinates:

Site ID:	52778
Facility Name:	RxD Nova Pharmaceuticals, Inc.
Env Int Type Code:	CalARP
Program ID:	10131835
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	38.393299
Longitude:	-121.960861

Affiliation:

Affiliation Type Desc:	Legal Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr.
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Operator
Entity Name:	RxD Nova Pharmaceuticals, 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:	(610) 952-7242

Affiliation Type Desc:	Document Preparer
Entity Name:	Weiqun Shen
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

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Affiliation Type Desc:	Environmental Contact
Entity Name:	Emily Mosen
Entity Title:	Not reported
Affiliation Address:	1404 Franklin St Suite 600
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94610
Affiliation Phone:	(510) 645-1850

Affiliation Type Desc:	Environmental Contact
Entity Name:	Weiqun Shen
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Identification Signer
Entity Name:	Weiqun Shen
Entity Title:	COO
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: RxD Nova Pharmaceuticals, 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

Site ID: 52778
CERS ID: 10131835
CERS Description: Hazardous Chemical Management

Violations:
Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2765.2(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2765.2(a)
Violation Description: Failure to develop, implement, and maintain at the stationary source an emergency response program that includes the following elements: 1. Procedures for informing and interfacing with the public and local emergency response agencies about accidental releases, emergency planning, and emergency response. 2. Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures. 3. Procedures and measures for emergency response after an accidental release of a regulated substance. 4. Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance are developed by the stationary source. 5. Training for all employees in relevant procedures and relevant aspects of the Incident Command System. 6. Procedures to review and update the emergency response plan to reflect changes at the stationary source are developed and employees are informed of these changes.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: HSC 6.95 25504(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(a)
Violation Description: Failure to complete and/or submit hazardous material inventory forms for all reportable hazardous materials on site.
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.6(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.6(a)
Violation Description: Failure to certify that they have evaluated compliance with the provisions of this article at least every three years to verify that the procedures and practices developed under this chapter are adequate and are being followed.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.3(a)(b) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.3(a)(b)
Violation Description: Failure to prepare written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that process and address the following: 1. Initial startup; 2. Normal operations; 3. Temporary operations; 4. Emergency shutdown and operations; 5. Normal shutdown; 6. Startup following a normal or emergency shutdown or a major change that requires a hazard review; 7. Consequences of deviations and steps required to correct or avoid deviations; 8. Equipment inspections.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure of business to report a release or threatened release of a hazardous material to the administering agency and CalEMA.
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.7(c) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.7(c)
Violation Description: Failure to prepare a summary of the investigation at the conclusion of the investigation that includes at a minimum: 1. Date of incident; 2. Date investigation began; 3. Description of incident; 4. Factors that contributed to the incident; 5. Recommendations resulting from the investigation
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 01/22/2013.
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description: Failure to complete the five-year accident history as provided in Section 2750.9
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 15 66265.192(k) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(k)
Violation Description: Failure of the new hazardous waste tank assessment to include all of the following information: 1) Tank configuration (i.e., horizontal, vertical), material of construction, and gross capacity (in gallons); 2) Design standard(s), if available, according to which the tank and ancillary equipment were or will be constructed and all of the following information; A) Material of construction; B) material thickness and the method used to determine the thickness; C) description of tank system piping (material, diameter); D) description of any internal and external pumps; and E) sketch or drawing of tank including dimensions. 3) Documented age of the tank system (if tank

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

was previously used), if available, (otherwise, an estimate of the age); 4) Description and evaluation of any leak detection equipment; 5) Description and evaluation of any corrosion protection equipment, devices, or material; 6) Description and evaluation of any spill prevention or overfill equipment; 7) Description and evaluation of secondary containment for the tank system (secondary containment must meet minimum standards as specified in subsections (j)(1) through (j)(3) of this section) including applicable secondary containment for ancillary equipment as required in subsection 66265.193(f); 8) Hazardous characteristics of the waste(s) that have been or will be handled; 9) Prior to placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, professional engineer, registered in California, either of whom is trained and experienced in the proper installation of tank systems, shall inspect the system or component for the presence of any of the following items and document in writing the results of the inspection: A) Weld cracks or breaks; B) scrapes of protective coatings; C) corrosion; D) any structural damage or inadequate construction or installation such as cracks, punctures, damaged fittings. All discrepancies shall be documented in the assessment and remedied before the tank syste

Violation Notes: Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description: Failure to prepare a worst-case release scenario analysis as provided in Section 2750.3
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4 2729.2(a)(3) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(3)
Violation Description: Failure to complete and/or submit an annotated site map if required by CUPA.
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.1(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.1(a)

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Description: Failure to compile and maintain the following up-to-date safety information related to the regulated substances, processes, and equipment: 1. Material Safety Data Sheets that meet the requirements of Section 5189 of Title 8 of CCR; 2. Maximum intended inventory of equipment in which the regulated substances are stored or processed; 3. Safe upper and lower temperatures, pressures, flows and compositions; 4. Equipment specifications; 5. Codes and standards used to design, build & operate the process.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 15 66265.192(h) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(h)
Violation Description: Failure to obtain and maintain a written assessment reviewed and certified by an independent, qualified, professional engineer stating the new hazardous waste tank system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system including the foundation, structural support, seams, connections, and pressure controls (if applicable) are suitably designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be transferred, stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. This assessment shall be obtained prior to placing the tank system in service, and shall be kept on file at the facility. The tank assessment shall be good for five years. This assessment shall also include, at a minimum, the following information: (1) Design standard(s) according to which the tank(s) and ancillary equipment are or will be constructed; (2) Hazardous characteristics of the waste(s) to be handled; (3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of: (A) Factors affecting the potential for corrosion, including but not limited to: 1. Soil moisture content; 2. Soil pH; 3. Soil sulfides level; 4. Soil resistivity; 5. Structure to soil potential; 6. Influence of nearby underground metal structures (e.g., piping); 7. Stray electric current; and, 8. Existing corrosion-protection measures (e.g., coating, cathodic protection), and (B) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following: 1. Corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic; 2. Corrosion-resistant coating (such as epoxy or f
Violation Notes: Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
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 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.5(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.5(a)
Violation Description:	Failure to prepare and implement procedures to maintain the on-going mechanical integrity of the process equipment.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-27-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-03-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	No violations cited.
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-27-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-03-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Eval Division: Solano County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2012
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Class I violations for failure to obtain P.E. certification and to protect piping and installation unapproved spill prevention relief valves
Eval Division: Solano County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-03-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations cited.
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2012
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Chemical inventory incomplete, site diagram inaccurate, notification procedures inadequate and unavailable, Failure to report a release
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2012
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Violations include lack of Compliance Audits, no five year accident history, P&IDs had inconsistant notation, lack of written procedures for Ammonium Hydroxide drum unloading, storing, and removal from storage, failure to determine manufactureer's recommedended tank truck unloading hose life.Lack of incident investigation that meets Cal ARP regulations
Eval Division: Solano County Environmental Health
Eval Program: CalARP
Eval Source: CERS

Enforcement Action:
Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Site Address: 2010 CESSNA DR
Site City: VACAVILLE
Site Zip: 95688
Enf Action Date: 01-22-2013
Enf Action Type: AEO - Unified Program
Enf Action Description: Administrative Enforcement Order Based on the Unified Program Statute

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	CalARP
Enf Action Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HWLQG
Enf Action Source:	CERS

Coordinates:

Site ID:	52778
Facility Name:	RxD Nova Pharmaceuticals, Inc.
Env Int Type Code:	CalARP
Program ID:	10131835
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	38.393299
Longitude:	-121.960861

Affiliation:

Affiliation Type Desc:	Legal Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr.
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Operator
Entity Name:	RxD Nova Pharmaceuticals, 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:	(610) 952-7242

Affiliation Type Desc:	Document Preparer
Entity Name:	Weiqun Shen
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:	Emily Mosen
Entity Title:	Not reported
Affiliation Address:	1404 Franklin St Suite 600
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94610
Affiliation Phone:	(510) 645-1850

Affiliation Type Desc:	Environmental Contact
Entity Name:	Weiqun Shen
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr
Affiliation City:	Vacaville

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242
Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765
Affiliation Type Desc:	Identification Signer
Entity Name:	Weiqun Shen
Entity Title:	COO
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:	RxD Nova Pharmaceuticals, 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

Site ID:	52778
CERS ID:	10131835
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2765.2(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2765.2(a)
Violation Description:	Failure to develop, implement, and maintain at the stationary source an emergency response program that includes the following elements: 1. Procedures for informing and interfacing with the public and local emergency response agencies about accidental releases, emergency planning, and emergency response. 2. Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures. 3. Procedures and measures for emergency response after an accidental release of a regulated substance. 4. Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance are developed by the stationary source. 5. Training for all employees in relevant procedures and relevant aspects of the Incident Command System. 6. Procedures to review and update the

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

	emergency response plan to reflect changes at the stationary source are developed and employees are informed of these changes.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	HSC 6.95 25504(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(a)
Violation Description:	Failure to complete and/or submit hazardous material inventory forms for all reportable hazardous materials on site.
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.6(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.6(a)
Violation Description:	Failure to certify that they have evaluated compliance with the provisions of this article at least every three years to verify that the procedures and practices developed under this chapter are adequate and are being followed.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.3(a)(b) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.3(a)(b)
Violation Description:	Failure to prepare written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that process and address the following: 1. Initial startup; 2. Normal operations; 3. Temporary operations; 4. Emergency shutdown and operations; 5. Normal shutdown; 6. Startup following a normal or emergency shutdown or a major change that requires a hazard review; 7. Consequences of deviations and steps required to correct or avoid deviations; 8. Equipment inspections.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Date:	10-29-2012
Citation:	HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description:	Failure of business to report a release or threatened release of a hazardous material to the administering agency and CalEMA.
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.7(c) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.7(c)
Violation Description:	Failure to prepare a summary of the investigation at the conclusion of the investigation that includes at a minimum: 1. Date of incident; 2. Date investigation began; 3. Description of incident; 4. Factors that contributed to the incident; 5. Recommendations resulting from the investigation
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description:	Business Plan Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 01/22/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description:	Failure to complete the five-year accident history as provided in

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

	Section 2750.9
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	22 CCR 15 66265.192(k) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(k)
Violation Description:	Failure of the new hazardous waste tank assessment to include all of the following information: 1) Tank configuration (i.e., horizontal, vertical), material of construction, and gross capacity (in gallons); 2) Design standard(s), if available, according to which the tank and ancillary equipment were or will be constructed and all of the following information; A) Material of construction; B) material thickness and the method used to determine the thickness; C) description of tank system piping (material, diameter); D) description of any internal and external pumps; and E) sketch or drawing of tank including dimensions. 3) Documented age of the tank system (if tank was previously used), if available, (otherwise, an estimate of the age); 4) Description and evaluation of any leak detection equipment; 5) Description and evaluation of any corrosion protection equipment, devices, or material; 6) Description and evaluation of any spill prevention or overfill equipment; 7) Description and evaluation of secondary containment for the tank system (secondary containment must meet minimum standards as specified in subsections (j)(1) through (j)(3) of this section) including applicable secondary containment for ancillary equipment as required in subsection 66265.193(f); 8) Hazardous characteristics of the waste(s) that have been or will be handled; 9) Prior to placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, professional engineer, registered in California, either of whom is trained and experienced in the proper installation of tank systems, shall inspect the system or component for the presence of any of the following items and document in writing the results of the inspection: A) Weld cracks or breaks; B) scrapes of protective coatings; C) corrosion; D) any structural damage or inadequate construction or installation such as cracks, punctures, damaged fittings. All discrepancies shall be documented in the assessment and remedied before the tank syste
Violation Notes:	Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description:	Failure to prepare a worst-case release scenario analysis as provided in Section 2750.3
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

	facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4 2729.2(a)(3) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(3)
Violation Description:	Failure to complete and/or submit an annotated site map if required by CUPA.
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.1(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.1(a)
Violation Description:	Failure to compile and maintain the following up-to-date safety information related to the regulated substances, processes, and equipment: 1. Material Safety Data Sheets that meet the requirements of Section 5189 of Title 8 of CCR; 2. Maximum intended inventory of equipment in which the regulated substances are stored or processed; 3. Safe upper and lower temperatures, pressures, flows and compositions; 4. Equipment specifications; 5. Codes and standards used to design, build & operate the process.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	22 CCR 15 66265.192(h) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(h)
Violation Description:	Failure to obtain and maintain a written assessment reviewed and certified by an independent, qualified, professional engineer stating the new hazardous waste tank system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system including the foundation, structural support, seams, connections, and pressure controls (if applicable) are suitably designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be transferred, stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. This assessment shall be obtained prior to placing the tank system in service, and shall be kept on file at the facility. The tank assessment shall be good for five years. This assessment shall also include, at a minimum, the following information: (1) Design standard(s) according to which the tank(s) and ancillary equipment are or will be constructed; (2) Hazardous characteristics of the waste(s)

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

to be handled; (3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of: (A) Factors affecting the potential for corrosion, including but not limited to: 1. Soil moisture content; 2. Soil pH; 3. Soil sulfides level; 4. Soil resistivity; 5. Structure to soil potential; 6. Influence of nearby underground metal structures (e.g., piping); 7. Stray electric current; and, 8. Existing corrosion-protection measures (e.g., coating, cathodic protection), and (B) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following: 1. Corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic; 2. Corrosion-resistant coating (such as epoxy or f

Violation Notes: Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
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 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.5(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.5(a)
Violation Description: Failure to prepare and implement procedures to maintain the on-going mechanical integrity of the process equipment.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-27-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Eval Date:	06-03-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	No violations cited.
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-27-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-03-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-29-2012
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Class I violations for failure to obtain P.E. certification and to protect piping and installation unapproved spill prevention relief valves
Eval Division:	Solano County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-03-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	No violations cited.
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-29-2012
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Chemical inventory incomplete, site diagram inaccurate, notification procedures inadequate and unavailable, Failure to report a release
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Eval Date:	10-29-2012
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Violations include lack of Compliance Audits, no five year accident history, P&IDs had inconsistant notation, lack of written procedures for Ammonium Hydroxide drum unloading, storing, and removal from storage, failure to determine manufactureer's recommedended tank truck unloading hose life.Lack of incident investigation that meets Cal ARP regulations
Eval Division:	Solano County Environmental Health
Eval Program:	CalARP
Eval Source:	CERS

Enforcement Action:

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	CalARP
Enf Action Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HWLQG

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Enf Action Source: CERS

Coordinates:
Site ID: 52778
Facility Name: RxD Nova Pharmaceuticals, Inc.
Env Int Type Code: CalARP
Program ID: 10131835
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 38.393299
Longitude: -121.960861

Affiliation:
Affiliation Type Desc: Legal Owner
Entity Name: RxD Nova Pharmaceuticals, Inc.
Entity Title: Not reported
Affiliation Address: 2010 Cessna Dr.
Affiliation City: Vacaville
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95688
Affiliation Phone: (610) 952-7242

Affiliation Type Desc: Operator
Entity Name: RxD Nova Pharmaceuticals, 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: (610) 952-7242

Affiliation Type Desc: Document Preparer
Entity Name: Weiqun Shen
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: Emily Mosen
Entity Title: Not reported
Affiliation Address: 1404 Franklin St Suite 600
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94610
Affiliation Phone: (510) 645-1850

Affiliation Type Desc: Environmental Contact
Entity Name: Weiqun Shen
Entity Title: Not reported

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Identification Signer
Entity Name:	Weiqun Shen
Entity Title:	COO
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:	RxD Nova Pharmaceuticals, 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

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

CERS TANKS:

Site ID:	52778
CERS ID:	10131835
CERS Description:	Aboveground Petroleum Storage

Violations:

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2765.2(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2765.2(a)
Violation Description:	Failure to develop, implement, and maintain at the stationary source an emergency response program that includes the following elements: 1. Procedures for informing and interfacing with the public and local emergency response agencies about accidental releases, emergency planning, and emergency response. 2. Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures. 3. Procedures and measures for emergency response after an accidental release of a regulated substance. 4. Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance are developed by the stationary source. 5. Training for all employees in relevant procedures and relevant aspects of the Incident Command System. 6. Procedures to review and update the emergency response plan to reflect changes at the stationary source are developed and employees are informed of these changes.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	HSC 6.95 25504(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(a)
Violation Description:	Failure to complete and/or submit hazardous material inventory forms for all reportable hazardous materials on site.
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.6(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.6(a)
Violation Description:	Failure to certify that they have evaluated compliance with the provisions of this article at least every three years to verify that the procedures and practices developed under this chapter are adequate and are being followed.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.3(a)(b) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.3(a)(b)
Violation Description: Failure to prepare written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that process and address the following: 1. Initial startup; 2. Normal operations; 3. Temporary operations; 4. Emergency shutdown and operations; 5. Normal shutdown; 6. Startup following a normal or emergency shutdown or a major change that requires a hazard review; 7. Consequences of deviations and steps required to correct or avoid deviations; 8. Equipment inspections.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure of business to report a release or threatened release of a hazardous material to the administering agency and CalEMA.
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.7(c) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.7(c)
Violation Description: Failure to prepare a summary of the investigation at the conclusion of the investigation that includes at a minimum: 1. Date of incident; 2. Date investigation began; 3. Description of incident; 4. Factors that contributed to the incident; 5. Recommendations resulting from the investigation
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 01/22/2013.
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description: Failure to complete the five-year accident history as provided in Section 2750.9
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 15 66265.192(k) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(k)
Violation Description: Failure of the new hazardous waste tank assessment to include all of the following information: 1) Tank configuration (i.e., horizontal, vertical), material of construction, and gross capacity (in gallons); 2) Design standard(s), if available, according to which the tank and ancillary equipment were or will be constructed and all of the following information; A) Material of construction; B) material thickness and the method used to determine the thickness; C) description of tank system piping (material, diameter); D) description of any internal and external pumps; and E) sketch or drawing of tank including dimensions. 3) Documented age of the tank system (if tank was previously used), if available, (otherwise, an estimate of the age); 4) Description and evaluation of any leak detection equipment; 5) Description and evaluation of any corrosion protection equipment, devices, or material; 6) Description and evaluation of any spill prevention or overfill equipment; 7) Description and evaluation of secondary containment for the tank system (secondary containment must meet minimum standards as specified in subsections (j)(1) through (j)(3) of this section) including applicable secondary containment for ancillary equipment as required in subsection 66265.193(f); 8) Hazardous characteristics of the waste(s) that have been or will be handled; 9) Prior to placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, professional engineer, registered in California, either of

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

	whom is trained and experienced in the proper installation of tank systems, shall inspect the system or component for the presence of any of the following items and document in writing the results of the inspection: A) Weld cracks or breaks; B) scrapes of protective coatings; C) corrosion; D) any structural damage or inadequate construction or installation such as cracks, punctures, damaged fittings. All discrepancies shall be documented in the assessment and remedied before the tank syste
Violation Notes:	Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description:	Failure to prepare a worst-case release scenario analysis as provided in Section 2750.3
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4 2729.2(a)(3) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(3)
Violation Description:	Failure to complete and/or submit an annotated site map if required by CUPA.
Violation Notes:	Returned to compliance on 04/16/2013.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.1(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.1(a)
Violation Description:	Failure to compile and maintain the following up-to-date safety information related to the regulated substances, processes, and equipment: 1. Material Safety Data Sheets that meet the requirements of Section 5189 of Title 8 of CCR; 2. Maximum intended inventory of equipment in which the regulated substances are stored or processed; 3. Safe upper and lower temperatures, pressures, flows and compositions; 4. Equipment specifications; 5. Codes and standards used to design, build & operate the process.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 15 66265.192(h) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(h)
Violation Description: Failure to obtain and maintain a written assessment reviewed and certified by an independent, qualified, professional engineer stating the new hazardous waste tank system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system including the foundation, structural support, seams, connections, and pressure controls (if applicable) are suitably designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be transferred, stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. This assessment shall be obtained prior to placing the tank system in service, and shall be kept on file at the facility. The tank assessment shall be good for five years. This assessment shall also include, at a minimum, the following information: (1) Design standard(s) according to which the tank(s) and ancillary equipment are or will be constructed; (2) Hazardous characteristics of the waste(s) to be handled; (3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of: (A) Factors affecting the potential for corrosion, including but not limited to: 1. Soil moisture content; 2. Soil pH; 3. Soil sulfides level; 4. Soil resistivity; 5. Structure to soil potential; 6. Influence of nearby underground metal structures (e.g., piping); 7. Stray electric current; and, 8. Existing corrosion-protection measures (e.g., coating, cathodic protection), and (B) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following: 1. Corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic; 2. Corrosion-resistant coating (such as epoxy or f
Violation Notes: Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
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 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Citation: 19 CCR 4.5 2755.5(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.5(a)
Violation Description: Failure to prepare and implement procedures to maintain the on-going mechanical integrity of the process equipment.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-27-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-03-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations cited.
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-27-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-03-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2012
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Class I violations for failure to obtain P.E. certification and to protect piping and installation unapproved spill prevention relief valves
Eval Division: Solano County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-03-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations cited.
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2012
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Chemical inventory incomplete, site diagram inaccurate, notification procedures inadequate and unavailable, Failure to report a release
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2012
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Violations include lack of Compliance Audits, no five year accident history, P&IDs had inconsistant notation, lack of written procedures for Ammonium Hydroxide drum unloading, storing, and removal from storage, failure to determine manufactureer's recommedended tank truck unloading hose life.Lack of incident investigation that meets Cal ARP regulations
Eval Division: Solano County Environmental Health
Eval Program: CalARP
Eval Source: CERS

Enforcement Action:
Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Site Address: 2010 CESSNA DR
Site City: VACAVILLE
Site Zip: 95688
Enf Action Date: 01-22-2013
Enf Action Type: AEO - Unified Program
Enf Action Description: Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes: Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division: Solano County Environmental Health
Enf Action Program: CalARP
Enf Action Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Site Address: 2010 CESSNA DR
Site City: VACAVILLE
Site Zip: 95688
Enf Action Date: 01-22-2013
Enf Action Type: AEO - Unified Program
Enf Action Description: Administrative Enforcement Order Based on the Unified Program Statute

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HWLQG
Enf Action Source:	CERS

Coordinates:

Site ID:	52778
Facility Name:	RxD Nova Pharmaceuticals, Inc.
Env Int Type Code:	CalARP
Program ID:	10131835
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	38.393299
Longitude:	-121.960861

Affiliation:

Affiliation Type Desc:	Legal Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr.
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Operator
Entity Name:	RxD Nova Pharmaceuticals, 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:	(610) 952-7242

Affiliation Type Desc:	Document Preparer
Entity Name:	Weiqun Shen
Entity Title:	Not reported

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

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:	Emily Mosen
Entity Title:	Not reported
Affiliation Address:	1404 Franklin St Suite 600
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94610
Affiliation Phone:	(510) 645-1850

Affiliation Type Desc:	Environmental Contact
Entity Name:	Weiqun Shen
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Affiliation Type Desc:	Identification Signer
Entity Name:	Weiqun Shen
Entity Title:	COO
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:	RxD Nova Pharmaceuticals, 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

CERS TANKS:

Site ID:	52778
CERS ID:	10131835
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2765.2(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2765.2(a)
Violation Description:	Failure to develop, implement, and maintain at the stationary source an emergency response program that includes the following elements: 1. Procedures for informing and interfacing with the public and local emergency response agencies about accidental releases, emergency planning, and emergency response. 2. Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures. 3. Procedures and measures for emergency response after an accidental release of a regulated substance. 4. Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance are developed by the stationary source. 5. Training for all employees in relevant procedures and relevant aspects of the Incident Command System. 6. Procedures to review and update the emergency response plan to reflect changes at the stationary source are developed and employees are informed of these changes.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	HSC 6.95 25504(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(a)

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Description: Failure to complete and/or submit hazardous material inventory forms for all reportable hazardous materials on site.
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.6(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.6(a)
Violation Description: Failure to certify that they have evaluated compliance with the provisions of this article at least every three years to verify that the procedures and practices developed under this chapter are adequate and are being followed.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.3(a)(b) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.3(a)(b)
Violation Description: Failure to prepare written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that process and address the following: 1. Initial startup; 2. Normal operations; 3. Temporary operations; 4. Emergency shutdown and operations; 5. Normal shutdown; 6. Startup following a normal or emergency shutdown or a major change that requires a hazard review; 7. Consequences of deviations and steps required to correct or avoid deviations; 8. Equipment inspections.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure of business to report a release or threatened release of a hazardous material to the administering agency and CalEMA.
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Citation: 19 CCR 4.5 2755.7(c) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.7(c)
Violation Description: Failure to prepare a summary of the investigation at the conclusion of the investigation that includes at a minimum: 1. Date of incident; 2. Date investigation began; 3. Description of incident; 4. Factors that contributed to the incident; 5. Recommendations resulting from the investigation
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 04/16/2013.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 01/22/2013.
Violation Division: Solano County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description: Failure to complete the five-year accident history as provided in Section 2750.9
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 15 66265.192(k) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(k)
Violation Description: Failure of the new hazardous waste tank assessment to include all of

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

the following information: 1) Tank configuration (i.e., horizontal, vertical), material of construction, and gross capacity (in gallons); 2) Design standard(s), if available, according to which the tank and ancillary equipment were or will be constructed and all of the following information; A) Material of construction; B) material thickness and the method used to determine the thickness; C) description of tank system piping (material, diameter); D) description of any internal and external pumps; and E) sketch or drawing of tank including dimensions. 3) Documented age of the tank system (if tank was previously used), if available, (otherwise, an estimate of the age); 4) Description and evaluation of any leak detection equipment; 5) Description and evaluation of any corrosion protection equipment, devices, or material; 6) Description and evaluation of any spill prevention or overfill equipment; 7) Description and evaluation of secondary containment for the tank system (secondary containment must meet minimum standards as specified in subsections (j)(1) through (j)(3) of this section) including applicable secondary containment for ancillary equipment as required in subsection 66265.193(f); 8) Hazardous characteristics of the waste(s) that have been or will be handled; 9) Prior to placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, professional engineer, registered in California, either of whom is trained and experienced in the proper installation of tank systems, shall inspect the system or component for the presence of any of the following items and document in writing the results of the inspection: A) Weld cracks or breaks; B) scrapes of protective coatings; C) corrosion; D) any structural damage or inadequate construction or installation such as cracks, punctures, damaged fittings. All discrepancies shall be documented in the assessment and remedied before the tank syste

Violation Notes:	Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2750.1 - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2750.1
Violation Description:	Failure to prepare a worst-case release scenario analysis as provided in Section 2750.3
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4 2729.2(a)(3) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(3)
Violation Description:	Failure to complete and/or submit an annotated site map if required by CUPA.
Violation Notes:	Returned to compliance on 04/16/2013.

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 19 CCR 4.5 2755.1(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.1(a)
Violation Description: Failure to compile and maintain the following up-to-date safety information related to the regulated substances, processes, and equipment: 1. Material Safety Data Sheets that meet the requirements of Section 5189 of Title 8 of CCR; 2. Maximum intended inventory of equipment in which the regulated substances are stored or processed; 3. Safe upper and lower temperatures, pressures, flows and compositions; 4. Equipment specifications; 5. Codes and standards used to design, build & operate the process.
Violation Notes: Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 52778
Site Name: RxD Nova Pharmaceuticals, Inc.
Violation Date: 10-29-2012
Citation: 22 CCR 15 66265.192(h) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(h)
Violation Description: Failure to obtain and maintain a written assessment reviewed and certified by an independent, qualified, professional engineer stating the new hazardous waste tank system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system including the foundation, structural support, seams, connections, and pressure controls (if applicable) are suitably designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be transferred, stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. This assessment shall be obtained prior to placing the tank system in service, and shall be kept on file at the facility. The tank assessment shall be good for five years. This assessment shall also include, at a minimum, the following information: (1) Design standard(s) according to which the tank(s) and ancillary equipment are or will be constructed; (2) Hazardous characteristics of the waste(s) to be handled; (3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of: (A) Factors affecting the potential for corrosion, including but not limited to: 1. Soil moisture content; 2. Soil pH; 3. Soil sulfides level; 4. Soil resistivity; 5. Structure to soil potential; 6. Influence of nearby underground metal structures (e.g., piping); 7. Stray electric current; and, 8. Existing corrosion-protection measures (e.g., coating, cathodic protection), and (B) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following: 1. Corrosion-resistant materials of

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

	construction such as special alloys or fiberglass-reinforced plastic; 2. Corrosion-resistant coating (such as epoxy or f
Violation Notes:	Returned to compliance on 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
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 01/22/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Violation Date:	10-29-2012
Citation:	19 CCR 4.5 2755.5(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.5(a)
Violation Description:	Failure to prepare and implement procedures to maintain the on-going mechanical integrity of the process equipment.
Violation Notes:	Returned to compliance on 01/23/2013. Violation regarding Former facility Novartis, AEO done and achieved compliance
Violation Division:	Solano County Environmental Health
Violation Program:	CalARP
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-27-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-03-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	No violations cited.
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-27-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Eval Division:	Solano County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-03-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-29-2012
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Class I violations for failure to obtain P.E. certification and to protect piping and installation unapproved spill prevention relief valves
Eval Division:	Solano County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-03-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	No violations cited.
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-29-2012
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Chemical inventory incomplete, site diagram inaccurate, notification procedures inadequate and unavailable, Failure to report a release
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-29-2012
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Violations include lack of Compliance Audits, no five year accident history, P&IDs had inconsistant notation, lack of written procedures for Ammonium Hydroxide drum unloading, storing, and removal from storage, failure to determine manufactureer's recommedended tank truck unloading hose life.Lack of incident investigation that meets Cal ARP regulations
Eval Division:	Solano County Environmental Health
Eval Program:	CalARP
Eval Source:	CERS

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Enforcement Action:

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	CalARP
Enf Action Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Site ID:	52778
Site Name:	RxD Nova Pharmaceuticals, Inc.
Site Address:	2010 CESSNA DR
Site City:	VACAVILLE
Site Zip:	95688
Enf Action Date:	01-22-2013
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $103,284.00. Proposed Consent Order sent to facility for hazardous materials, hazardous waste, and CalARP violations see Class I violations in inspection data.
Enf Action Division:	Solano County Environmental Health
Enf Action Program:	HWLQG
Enf Action Source:	CERS

Coordinates:

Site ID:	52778
Facility Name:	RxD Nova Pharmaceuticals, Inc.
Env Int Type Code:	CalARP
Program ID:	10131835
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	38.393299
Longitude:	-121.960861

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Affiliation:

Affiliation Type Desc:	Legal Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr.
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Operator
Entity Name:	RxD Nova Pharmaceuticals, 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:	(610) 952-7242

Affiliation Type Desc:	Document Preparer
Entity Name:	Weiqun Shen
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:	Emily Mosen
Entity Title:	Not reported
Affiliation Address:	1404 Franklin St Suite 600
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94610
Affiliation Phone:	(510) 645-1850

Affiliation Type Desc:	Environmental Contact
Entity Name:	Weiqun Shen
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Drive
Affiliation City:	Vacaville
Affiliation State:	CA

RXD NOVA PHARMACEUTICALS, INC. (Continued) **S121787373**

Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	RxD Nova Pharmaceuticals, Inc.
Entity Title:	Not reported
Affiliation Address:	2010 Cessna Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(610) 952-7242
Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765
Affiliation Type Desc:	Identification Signer
Entity Name:	Weiqun Shen
Entity Title:	COO
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:	RxD Nova Pharmaceuticals, 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

B7 **VACA VALLEY EXCAVATING & TRUCKING INC.** **CERS HAZ WASTE** **S121792174**
SSE **2201 E MONTE VISTA AVE** **CERS TANKS** **N/A**
1/8-1/4 **VACAVILLE, CA 95688** **CERS**
0.156 mi.
822 ft. **Site 1 of 2 in cluster B**

Relative:
Higher

Actual:
115 ft.

CERS HAZ WASTE:

Site ID:	79645
CERS ID:	10338946
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	79645

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Site Name: Vaca Valley Excavating & Trucking Inc.
Violation Date: 10-13-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 10/13/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 79645
Site Name: Vaca Valley Excavating & Trucking Inc.
Violation Date: 10-13-2016
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 10/13/2016.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 79645
Site Name: Vaca Valley Excavating & Trucking Inc.
Violation Date: 10-13-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to 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 10/13/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 79645
Site Name: Vaca Valley Excavating & Trucking Inc.
Violation Date: 10-13-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to 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 10/13/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-13-2016
Violations Found: Yes

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-13-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	79645
Facility Name:	Vaca Valley Excavating & Trucking Inc.
Env Int Type Code:	HWG
Program ID:	10338946
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	38.388310
Longitude:	-121.952040

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Paul Guglielmoni
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:	(707) 249-7049
Affiliation Type Desc:	Property Owner
Entity Name:	Paul Guglielmoni
Entity Title:	Not reported
Affiliation Address:	2201 E Monte Vista Ave
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 453-1812
Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Affiliation Type Desc:	Environmental Contact
Entity Name:	Fremouw Environmental Services, Inc
Entity Title:	Not reported
Affiliation Address:	PO Box 2875
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95696
Affiliation Phone:	(707) 448-3700

Affiliation Type Desc:	Identification Signer
Entity Name:	Betty Guglielmoni
Entity Title:	Vice President
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	Vaca Valley Excavating & Trucking Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Brandee Lueger
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:	2201 E Monte Vista Avenue
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Paul Guglielmoni
Entity Title:	Not reported
Affiliation Address:	2201 E Monte Vista Ave
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Affiliation Zip: 95688
Affiliation Phone: (707) 453-1812

CERS TANKS:
Site ID: 79645
CERS ID: 10338946
CERS Description: Aboveground Petroleum Storage

Violations:
Site ID: 79645
Site Name: Vaca Valley Excavating & Trucking Inc.
Violation Date: 10-13-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 10/13/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 79645
Site Name: Vaca Valley Excavating & Trucking Inc.
Violation Date: 10-13-2016
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 10/13/2016.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 79645
Site Name: Vaca Valley Excavating & Trucking Inc.
Violation Date: 10-13-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to 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 10/13/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 79645
Site Name: Vaca Valley Excavating & Trucking Inc.
Violation Date: 10-13-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate training

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

program in safety procedures in the event of a release or threatened release of a hazardous material.

Violation Notes: Returned to compliance on 10/13/2016.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-13-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-13-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:

Site ID: 79645
Facility Name: Vaca Valley Excavating & Trucking Inc.
Env Int Type Code: HWG
Program ID: 10338946
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 38.388310
Longitude: -121.952040

Affiliation:

Affiliation Type Desc: Operator
Entity Name: Paul Guglielmoni
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: (707) 249-7049

Affiliation Type Desc: Property Owner
Entity Name: Paul Guglielmoni
Entity Title: Not reported
Affiliation Address: 2201 E Monte Vista Ave
Affiliation City: Vacaville
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95688
Affiliation Phone: (707) 453-1812

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Environmental Contact
Entity Name:	Fremouw Environmental Services, Inc
Entity Title:	Not reported
Affiliation Address:	PO Box 2875
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95696
Affiliation Phone:	(707) 448-3700

Affiliation Type Desc:	Identification Signer
Entity Name:	Betty Guglielmoni
Entity Title:	Vice President
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	Vaca Valley Excavating & Trucking Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Brandee Lueger
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:	2201 E Monte Vista Avenue
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Affiliation Zip:	95688
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Paul Guglielmoni
Entity Title:	Not reported
Affiliation Address:	2201 E Monte Vista Ave
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 453-1812

CERS TANKS:

Site ID:	79645
CERS ID:	10338946
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	79645
Site Name:	Vaca Valley Excavating & Trucking Inc.
Violation Date:	10-13-2016
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 10/13/2016.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	79645
Site Name:	Vaca Valley Excavating & Trucking Inc.
Violation Date:	10-13-2016
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 10/13/2016.
Violation Division:	Solano County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	79645
Site Name:	Vaca Valley Excavating & Trucking Inc.
Violation Date:	10-13-2016
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to 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 10/13/2016.

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	79645
Site Name:	Vaca Valley Excavating & Trucking Inc.
Violation Date:	10-13-2016
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to 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 10/13/2016.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-13-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-13-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	79645
Facility Name:	Vaca Valley Excavating & Trucking Inc.
Env Int Type Code:	HWG
Program ID:	10338946
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	38.388310
Longitude:	-121.952040

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Paul Guglielmoni
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:	(707) 249-7049

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Affiliation Type Desc:	Property Owner
Entity Name:	Paul Guglielmoni
Entity Title:	Not reported
Affiliation Address:	2201 E Monte Vista Ave
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 453-1812

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Environmental Contact
Entity Name:	Fremouw Environmental Services, Inc
Entity Title:	Not reported
Affiliation Address:	PO Box 2875
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95696
Affiliation Phone:	(707) 448-3700

Affiliation Type Desc:	Identification Signer
Entity Name:	Betty Guglielmoni
Entity Title:	Vice President
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	Vaca Valley Excavating & Trucking Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Brandee Lueger
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

VACA VALLEY EXCAVATING & TRUCKING INC. (Continued) **S121792174**

Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2201 E Monte Vista Avenue
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Paul Guglielmoni
Entity Title:	Not reported
Affiliation Address:	2201 E Monte Vista Ave
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 453-1812

B8 **VACA VALLEY EXCAVATING & TRUCKING INC.** **AST** **A100425710**
SSE **2201 E MONTE VISTA AVE** **N/A**
1/8-1/4 **VACAVILLE, CA 95688**
0.156 mi.
822 ft. **Site 2 of 2 in cluster B**

Relative:
Higher

Actual:
115 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Paul Guglielmoni
Total Gallons:	Not reported
CERSID:	10338946
Facility ID:	Not reported
Business Name:	Vaca Valley Excavating & Trucking Inc.
Phone:	7074531812
Fax:	7074531813
Mailing Address:	2201 E Monte Vista Avenue
Mailing Address City:	Vacaville
Mailing Address State:	CA
Mailing Address Zip Code:	95688
Operator Name:	Paul Guglielmoni
Operator Phone:	7072497049
Owner Phone:	7074531812
Owner Mail Address:	2201 E Monte Vista Ave
Owner State:	CA
Owner Zip Code:	95688
Owner Country:	United States
Property Owner Name:	Paul Guglielmoni
Property Owner Phone:	7074531812
Property Owner Mailing Address:	2201 E Monte Vista Ave
Property Owner City:	Vacaville
Property Owner Stat :	CA
Property Owner Zip Code:	95688
Property Owner Country:	United States
EPAID:	CAL000375805

C9 NE 1/8-1/4 0.162 mi. 856 ft. | **VACA VALLEY TRAVEL CENTER**
151 CROCKER DR
VACAVILLE, CA 95688 | **CERS HAZ WASTE**
CERS TANKS
CERS | **S121776715**
N/A

Site 1 of 2 in cluster C

Relative: Lower

Actual: 107 ft.

CERS HAZ WASTE:

Site ID:	405239
CERS ID:	10406887
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
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 04/23/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	04-26-2017
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 05/14/2018.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	04-26-2017
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 05/14/2018.
Violation Division:	Solano County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
Citation:	HSC 6.7 25284(a)(3) - California Health and Safety Code, Chapter 6.7, Section(s) 25284(a)(3)
Violation Description:	Failure to submit, maintain, or implement an owner/operator written agreement.
Violation Notes:	Returned to compliance on 04/23/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	UST
Violation Source:	CERS

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description: Failure to submit, obtain approval, or maintain a complete/accurate response plan.
Violation Notes: Returned to compliance on 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: HSC 6.95 25504(b) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(b)
Violation Description: Failure to include adequate emergency response procedures in the business plan for a release or threatened release.
Violation Notes: Returned to compliance on 04/14/2014.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-21-2015
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: Not reported
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description: Failure to prepare, maintain, and submit accurate CUPA UST Operating Permit Application for Facility information and/or Tank information.
Violation Notes: Returned to compliance on 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-26-2017
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 05/14/2018.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-14-2014
Citation: HSC 6.95 25510 - California Health and Safety Code, Chapter 6.95, Section(s) 25510
Violation Description: Failure to update hazardous material inventory within 30 days when one of the following occurs: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a previously undisclosed hazardous materials A change of business address, business ownership, or business name.
Violation Notes: Returned to compliance on 04/20/2015. Inspector observed 55 gal. drum of car wash chemicals on site - add to hazardous inventory on CERS
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-24-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 05/14/2018.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: 19 CCR 4 2729.5 - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.5
Violation Description: Failure to submit inventory reports (Activities, Owner/Operator, Hazardous Materials Descriptions and Map pages, if required. Documentation must be resubmitted (for facilities which exceed EPCRA thresholds) or re-certified (for facilities which do not exceed EPCRA thresholds) by March 1.
Violation Notes: Returned to compliance on 04/14/2014.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: HSC 6.95 25504(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(c)
Violation Description: Failure to include an adequate training program in the business plan, which is reasonable and appropriate for the size of the business and the nature of the hazardous material handled.
Violation Notes: Returned to compliance on 04/14/2014.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-24-2018
Citation: 22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes: Returned to compliance on 05/14/2018.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
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 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-14-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-21-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-26-2017
Violations Found: No

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-06-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-24-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-25-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-14-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-14-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	AMC observation, no violations noted. Small amount of liquid removed from diesel dispenser areas (9), directed to monitor carefully.

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-25-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	No violations observed.
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-26-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-06-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-12-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-24-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-26-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	405239
Facility Name:	Vaca Valley Travel Center
Env Int Type Code:	HMBP
Program ID:	10406887
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	38.395350
Longitude:	-121.951840

Affiliation:

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	151 Crocker Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	UST Tank Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Legal Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Operator
Entity Name:	Jaspreet Sidhu
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:	(707) 301-5244

Affiliation Type Desc:	Property Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	UST Permit Applicant
Entity Name:	Jaspreet Sidhu
Entity Title:	Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	UST Tank Operator
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Identification Signer
Entity Name:	Jaspreet Sidhu
Entity Title:	Owner
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

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:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Parent Corporation
Entity Name:	Sidhu and Sons
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 Property Owner Name
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

CERS TANKS:

Site ID:	405239
CERS ID:	10406887
CERS Description:	Underground Storage Tank

Violations:

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
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 04/23/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	405239

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Site Name:	Vaca Valley Travel Center
Violation Date:	04-26-2017
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 05/14/2018.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	04-26-2017
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 05/14/2018.
Violation Division:	Solano County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
Citation:	HSC 6.7 25284(a)(3) - California Health and Safety Code, Chapter 6.7, Section(s) 25284(a)(3)
Violation Description:	Failure to submit, maintain, or implement an owner/operator written agreement.
Violation Notes:	Returned to compliance on 04/23/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to submit, obtain approval, or maintain a complete/accurate response plan.
Violation Notes:	Returned to compliance on 04/23/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
Citation:	HSC 6.95 25504(b) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(b)
Violation Description:	Failure to include adequate emergency response procedures in the business plan for a release or threatened release.
Violation Notes:	Returned to compliance on 04/14/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-21-2015
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: Not reported
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description: Failure to prepare, maintain, and submit accurate CUPA UST Operating Permit Application for Facility information and/or Tank information.
Violation Notes: Returned to compliance on 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-26-2017
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 05/14/2018.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-14-2014
Citation: HSC 6.95 25510 - California Health and Safety Code, Chapter 6.95, Section(s) 25510
Violation Description: Failure to update hazardous material inventory within 30 days when one of the following occurs: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a previously undisclosed hazardous materials A change of business address, business ownership, or business name.
Violation Notes: Returned to compliance on 04/20/2015. Inspector observed 55 gal. drum of car wash chemicals on site - add to hazardous inventory on CERS
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-24-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

	6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 05/14/2018.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
Citation:	19 CCR 4 2729.5 - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.5
Violation Description:	Failure to submit inventory reports (Activities, Owner/Operator, Hazardous Materials Descriptions and Map pages, if required. Documentation must be resubmitted (for facilities which exceed EPCRA thresholds) or re-certified (for facilities which do not exceed EPCRA thresholds) by March 1.
Violation Notes:	Returned to compliance on 04/14/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
Citation:	HSC 6.95 25504(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(c)
Violation Description:	Failure to include an adequate training program in the business plan, which is reasonable and appropriate for the size of the business and the nature of the hazardous material handled.
Violation Notes:	Returned to compliance on 04/14/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	04-24-2018
Citation:	22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes:	Returned to compliance on 05/14/2018.
Violation Division:	Solano County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
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.

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Violation Notes: Returned to compliance on 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-14-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-21-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-26-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-06-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-25-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-14-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-14-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	AMC observation, no violations noted. Small amount of liquid removed from diesel dispenser areas (9), directed to monitor carefully.
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-25-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	No violations observed.
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-26-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-06-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-12-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-24-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-26-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	405239
Facility Name:	Vaca Valley Travel Center
Env Int Type Code:	HMBP
Program ID:	10406887
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	38.395350
Longitude:	-121.951840

Affiliation:

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	151 Crocker Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	UST Tank Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Legal Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Operator
Entity Name:	Jaspreet Sidhu
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:	(707) 301-5244

Affiliation Type Desc:	Property Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	UST Permit Applicant
Entity Name:	Jaspreet Sidhu
Entity Title:	Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	UST Tank Operator
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Identification Signer
Entity Name:	Jaspreet Sidhu
Entity Title:	Owner
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Jaspreet Sidhu
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:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Parent Corporation
Entity Name:	Sidhu and Sons
Entity Title:	Not reported
Affiliation Address:	Not reported

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	UST Property Owner Name
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

CERS TANKS:

Site ID:	405239
CERS ID:	10406887
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	05-31-2013
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 04/23/2014.
Violation Division:	Solano County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	04-26-2017
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 05/14/2018.
Violation Division:	Solano County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	405239
Site Name:	Vaca Valley Travel Center
Violation Date:	04-26-2017
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 05/14/2018.
Violation Division:	Solano County Environmental Health
Violation Program:	UST

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: HSC 6.7 25284(a)(3) - California Health and Safety Code, Chapter 6.7, Section(s) 25284(a)(3)
Violation Description: Failure to submit, maintain, or implement an owner/operator written agreement.
Violation Notes: Returned to compliance on 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description: Failure to submit, obtain approval, or maintain a complete/accurate response plan.
Violation Notes: Returned to compliance on 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: HSC 6.95 25504(b) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(b)
Violation Description: Failure to include adequate emergency response procedures in the business plan for a release or threatened release.
Violation Notes: Returned to compliance on 04/14/2014.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-21-2015
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: Not reported
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description: Failure to prepare, maintain, and submit accurate CUPA UST Operating Permit Application for Facility information and/or Tank information.

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Violation Notes: Returned to compliance on 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-26-2017
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 05/14/2018.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-14-2014
Citation: HSC 6.95 25510 - California Health and Safety Code, Chapter 6.95, Section(s) 25510
Violation Description: Failure to update hazardous material inventory within 30 days when one of the following occurs: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a previously undisclosed hazardous materials A change of business address, business ownership, or business name.
Violation Notes: Returned to compliance on 04/20/2015. Inspector observed 55 gal. drum of car wash chemicals on site - add to hazardous inventory on CERS
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-24-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 05/14/2018.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: 19 CCR 4 2729.5 - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.5
Violation Description: Failure to submit inventory reports (Activities, Owner/Operator, Hazardous Materials Descriptions and Map pages, if required. Documentation must be resubmitted (for facilities which exceed EPCRA thresholds) or re-certified (for facilities which do not exceed EPCRA thresholds) by March 1.
Violation Notes: Returned to compliance on 04/14/2014.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
Citation: HSC 6.95 25504(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(c)
Violation Description: Failure to include an adequate training program in the business plan, which is reasonable and appropriate for the size of the business and the nature of the hazardous material handled.
Violation Notes: Returned to compliance on 04/14/2014.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 04-24-2018
Citation: 22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes: Returned to compliance on 05/14/2018.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 405239
Site Name: Vaca Valley Travel Center
Violation Date: 05-31-2013
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 04/23/2014.
Violation Division: Solano County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-14-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-21-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-24-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-26-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-06-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-24-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-25-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	UST
Eval Source:	CERS

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-14-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-14-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: AMC observation, no violations noted. Small amount of liquid removed from diesel dispenser areas (9), directed to monitor carefully.
Eval Division: Solano County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-25-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations observed.
Eval Division: Solano County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-26-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-06-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Solano County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2018

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-26-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Solano County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	405239
Facility Name:	Vaca Valley Travel Center
Env Int Type Code:	HMBP
Program ID:	10406887
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	38.395350
Longitude:	-121.951840

Affiliation:

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	151 Crocker Drive
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	UST Tank Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Legal Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Operator
Entity Name:	Jaspreet Sidhu
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:	(707) 301-5244

Affiliation Type Desc:	Property Owner
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	UST Permit Applicant
Entity Name:	Jaspreet Sidhu
Entity Title:	Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	UST Tank Operator
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States

VACA VALLEY TRAVEL CENTER (Continued) **S121776715**

Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Identification Signer
Entity Name:	Jaspreet Sidhu
Entity Title:	Owner
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Jaspreet Sidhu
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:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

Affiliation Type Desc:	Parent Corporation
Entity Name:	Sidhu and Sons
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 Property Owner Name
Entity Name:	Jaspreet Sidhu
Entity Title:	Not reported
Affiliation Address:	438 Peacock Way
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-7275

C10 NE 1/8-1/4 0.162 mi. 856 ft. — **VACA VALLEY TRAVEL CENTER**, **151 CROCKER DR**, **VACAVILLE, CA 95688** — **UST** — **U004191918**, **N/A**

Site 2 of 2 in cluster C

Relative: Lower

Actual: 107 ft.

UST:

Facility ID:	48-000-501901
Permitting Agency:	Solano County Environmental Health
Latitude:	38.39535
Longitude:	-121.95184

SOLANO CO. UST:

Facility Id:	501901
Facility Status:	Active
Decode for Facility Status:	Operating
Facility Phone:	Not reported

Inventory Number:	1
Inventory Type:	Gas Station - Retail (111)
Inventory Description:	Not reported
Permit Expire/Last Service:	LETTER/REPORT REVIEW 05/31/19, 05/31/19
Last Service Date:	9/12/2018
District:	SUP-DIST NO 3031
Inspector:	Ambrose, Chris S

Inventory Number:	2
Inventory Type:	Gas Station - Retail (111)
Inventory Description:	Not reported
Permit Expire/Last Service:	ROUTINE - INITIAL (INVENTORIED) 05/31/19, 05/31/19
Last Service Date:	4/24/2018
District:	SUP-DIST NO 3031
Inspector:	Ambrose, Chris S

Inventory Number:	3
Inventory Type:	Gas Station - Retail (111)
Inventory Description:	Not reported
Permit Expire/Last Service:	ROUTINE - INITIAL (INVENTORIED) 05/31/19, 05/31/19
Last Service Date:	4/24/2018
District:	SUP-DIST NO 3031
Inspector:	Ambrose, Chris S

Inventory Number:	4
Inventory Type:	Gas Station - Retail (111)
Inventory Description:	Not reported
Permit Expire/Last Service:	ROUTINE - INITIAL (INVENTORIED) 05/31/19, 05/31/19
Last Service Date:	4/24/2018
District:	SUP-DIST NO 3031
Inspector:	Ambrose, Chris S

11 NNE 1/8-1/4 0.165 mi. 873 ft. | **REPORTER THE**
916 COTTING LN
VACAVILLE, CA 95688 | **RCRA-SQG FINDS** | **1001023078**
CAR000004291

Relative: Higher

Actual: 109 ft.

RCRA-SQG:

Date form received by agency:	07/12/1995
Facility name:	REPORTER THE
Facility address:	916 COTTING LN VACAVILLE, CA 95688
EPA ID:	CAR000004291
Mailing address:	COTTING LN VACAVILLE, CA 95688
Contact:	GARY DAVIDSON
Contact address:	916 COTTING LN VACAVILLE, CA 95688
Contact country:	US
Contact telephone:	707-448-6401
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	RICHARD RICO
Owner/operator address:	916 COTTLING LN VACAVILLE, CA 95688
Owner/operator country:	Not reported
Owner/operator telephone:	707-448-6401
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

REPORTER THE (Continued) **1001023078**

Violation Status: No violations found

FINDS:

Registry ID: 110055768708

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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12 NW 1/8-1/4 0.187 mi. 987 ft. | **MONTY'S AUTOMOTIVE INC.**
803 VACA VALLEY PKWY STE A
VACAVILLE, CA 95688 | **CERS HAZ WASTE** **S121743609**
CERS **N/A**

Relative: Higher
Actual: 116 ft.

CERS HAZ WASTE:
Site ID: 136236
CERS ID: 10442878
CERS Description: Hazardous Waste Generator

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: monty wilson
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: Monty Wilson
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: (707) 301-6084

Affiliation Type Desc: Parent Corporation
Entity Name: Monty's Automotive Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Solano County Env Health
Entity Title: Not reported
Affiliation Address: 675 Texas Street, Suite 5500

MONTY'S AUTOMOTIVE INC. (Continued) **S121743609**

Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Legal Owner
Entity Name:	Monty Wilson
Entity Title:	Not reported
Affiliation Address:	803 vaca valley Pkwy Ste A
Affiliation City:	vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-6084

Affiliation Type Desc:	Property Owner
Entity Name:	Bob Voght
Entity Title:	Not reported
Affiliation Address:	803 vaca valley Pkwy Ste C
Affiliation City:	vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 452-8512

Affiliation Type Desc:	Environmental Contact
Entity Name:	Aren Brothers Enviromental
Entity Title:	Not reported
Affiliation Address:	4066 stage court # F1
Affiliation City:	placerville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95667
Affiliation Phone:	(866) 220-2412

Affiliation Type Desc:	Identification Signer
Entity Name:	Monty Wilson
Entity Title:	president
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	803 vaca valley Pkwy Ste A
Affiliation City:	vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

MONTY'S AUTOMOTIVE INC. (Continued) **S121743609**

CERS TANKS:

Site ID:	136236
CERS ID:	10442878
CERS Description:	Chemical Storage Facilities

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	monty wilson
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:	Monty Wilson
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:	(707) 301-6084

Affiliation Type Desc:	Parent Corporation
Entity Name:	Monty's Automotive Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Legal Owner
Entity Name:	Monty Wilson
Entity Title:	Not reported
Affiliation Address:	803 vaca valley Pkwy Ste A
Affiliation City:	vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 301-6084

Affiliation Type Desc:	Property Owner

MONTY'S AUTOMOTIVE INC. (Continued) **S121743609**

Entity Name:	Bob Voght
Entity Title:	Not reported
Affiliation Address:	803 vaca valley Pkwy Ste C
Affiliation City:	vacaville
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95688
Affiliation Phone:	(707) 452-8512

Affiliation Type Desc:	Environmental Contact
Entity Name:	Aren Brothers Enviromental
Entity Title:	Not reported
Affiliation Address:	4066 stage court # F1
Affiliation City:	placerville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95667
Affiliation Phone:	(866) 220-2412

Affiliation Type Desc:	Identification Signer
Entity Name:	Monty Wilson
Entity Title:	president
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	803 vaca valley Pkwy Ste A
Affiliation City:	vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

13
NW
1/8-1/4
0.207 mi.
1092 ft.

SUPERIOR SIGN SYSTEMS
630 EUBANKS CT UNIT A
VACAVILLE, CA 95688

RCRA-SQG **1000818854**
FINDS **CAD983647827**
ECHO
HAZNET

Relative:
Higher

Actual:
124 ft.

RCRA-SQG:

Date form received by agency:	09/08/1992
Facility name:	SUPERIOR SIGN SYSTEMS
Facility address:	630 EUBANKS CT UNIT A VACAVILLE, CA 95688
EPA ID:	CAD983647827
Mailing address:	EUBANKS CT UNIT A VACAVILLE, CA 95688
Contact:	STEPHEN MILLER
Contact address:	630 EUBANKS CT UNIT A VACAVILLE, CA 95688
Contact country:	US

SUPERIOR SIGN SYSTEMS (Continued) **1000818854**

Contact telephone: 707-449-8111
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: PETER DUCKETT
Owner/operator address: 630 A EUBANKS CT
VACAVILLE, CA 95688
Owner/operator country: Not reported
Owner/operator telephone: 707-449-8111
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002884219

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.

SUPERIOR SIGN SYSTEMS (Continued) **1000818854**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000818854
Registry ID:	110002884219
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002884219

HAZNET:

Facility Name:	SUPERIOR SIGN SYSTEMS
envid:	1000818854
Year:	1995
GEPAID:	CAD983647827
Contact:	PETER DUCKETT
Telephone:	7074498111
Mailing Name:	Not reported
Mailing Address:	630 EUBANKS CT UNIT A
Mailing City,St,Zip:	VACAVILLE, CA 956880000
Gen County:	Not reported
TSD EPA ID:	CAT000613950
TSD County:	Not reported
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Tons:	.0180
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Solano

envid:	1000818854
Year:	1994
GEPAID:	CAD983647827
Contact:	PETER DUCKETT
Telephone:	7074498111
Mailing Name:	Not reported
Mailing Address:	630 EUBANKS CT UNIT A
Mailing City,St,Zip:	VACAVILLE, CA 956880000
Gen County:	Not reported
TSD EPA ID:	CAD009452657
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Recycler
Tons:	.4587
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Solano

envid:	1000818854
Year:	1994
GEPAID:	CAD983647827
Contact:	PETER DUCKETT
Telephone:	7074498111
Mailing Name:	Not reported
Mailing Address:	630 EUBANKS CT UNIT A
Mailing City,St,Zip:	VACAVILLE, CA 956880000
Gen County:	Not reported

SUPERIOR SIGN SYSTEMS (Continued) **1000818854**

TSD EPA ID: CAD009452657
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: .4587
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Solano

envid: 1000818854
Year: 1994
GEPAID: CAD983647827
Contact: PETER DUCKETT
Telephone: 7074498111
Mailing Name: Not reported
Mailing Address: 630 EUBANKS CT UNIT A
Mailing City,St,Zip: VACAVILLE, CA 956880000
Gen County: Not reported
TSD EPA ID: CAT000613950
TSD County: Not reported
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Tons: .2220
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Solano

envid: 1000818854
Year: 1994
GEPAID: CAD983647827
Contact: PETER DUCKETT
Telephone: 7074498111
Mailing Name: Not reported
Mailing Address: 630 EUBANKS CT UNIT A
Mailing City,St,Zip: VACAVILLE, CA 956880000
Gen County: Not reported
TSD EPA ID: CAT000613950
TSD County: Not reported
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Not reported
Tons: .1860
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Solano

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

D14 NE 1/8-1/4 0.209 mi. 1103 ft. | **GOLDEN STATE FC LLC (SMF5)**
300 CROCKER DR
VACAVILLE, CA 95688 | **RCRA-SQG** | **1023966878**
CAR000276162

Site 1 of 2 in cluster D

Relative: Higher

Actual: 110 ft.

RCRA-SQG:

Date form received by agency:	09/19/2017
Facility name:	GOLDEN STATE FC LLC (SMF5)
Facility address:	300 CROCKER DR VACAVILLE, CA 95688
EPA ID:	CAR000276162
Mailing address:	PO BOX 80842 ATTN: NA ENV TEAM SEATTLE, WA 98108
Contact:	ERIC CHAPMAN
Contact address:	PO BOX 80842 SEATTLE, WA 98108
Contact country:	US
Contact telephone:	206-413-4526
Contact email:	ECHAPM@AMAZON.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	BUZZ OATES DEVELOPMENT, LP AND BUZZ OATES LLC
Owner/operator address:	CAPITOL MALL, STE 900 SACRAMENTO, CA 95814
Owner/operator country:	US
Owner/operator telephone:	916-379-3800
Owner/operator email:	INFO@BUZZOATES.COM
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	06/08/2017
Owner/Op end date:	Not reported

Owner/operator name:	GOLDEN STATE FC LLC
Owner/operator address:	PO BOX 80842 SEATTLE, WA 98108
Owner/operator country:	US
Owner/operator telephone:	206-413-4526
Owner/operator email:	ECHAPM@AMAZON.COM
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	09/15/2017
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No

GOLDEN STATE FC LLC (SMF5) (Continued) **1023966878**

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 123
. Waste name: Unspecified alkaline solution

. Waste code: 131
. Waste name: Aqueous solution (2 < pH < 12.5) containing reactive anions (azide, bromate, chlorate, cyanide, fluoride, hypochlorite, nitrite, perchlorate, and sulfide anions)

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 281
. Waste name: Adhesives

. Waste code: 311
. Waste name: Pharmaceutical waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343

GOLDEN STATE FC LLC (SMF5) (Continued) **1023966878**

. Waste name: Unspecified organic liquid mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 512
. Waste name: Other empty containers 30 gallons or more

. Waste code: 513
. Waste name: Empty containers less than 30 gallons

. Waste code: 561
. Waste name: Detergent and soap

. Waste code: 725
. Waste name: Liquids with mercury > 20 mg/l

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

GOLDEN STATE FC LLC (SMF5) (Continued) **1023966878**

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D016
. Waste name: 2,4-D

. Waste code: D018
. Waste name: BENZENE

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D027
. Waste name: 1,4-DICHLOROBENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: P075
. Waste name: NICOTINE, & SALTS

. Waste code: U002
. Waste name: ACETONE (I)

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA,2ALPHA,3BETA,4ALPHA,5ALPHA,6BETA)-

. Waste code: U154
. Waste name: METHANOL (I)

. Waste code: U159
. Waste name: 2-BUTANONE (I,T)

. Waste code: U205
. Waste name: SELENIUM SULFIDE

Violation Status: No violations found

D15 **GOLDEN STATE FC LLC - SMF5** **CERS HAZ WASTE** **S121783009**
NE **300 CROCKER DR** **NPDES** **N/A**
1/8-1/4 **VACAVILLE, CA 95688** **CERS**
0.209 mi.
1103 ft. **Site 2 of 2 in cluster D**

Relative:
Higher
Actual:
110 ft.

CERS HAZ WASTE:
Site ID: 427949
CERS ID: 10748062
CERS Description: Hazardous Waste Generator

Coordinates:
Site ID: 427949
Facility Name: Golden State FC LLC - SMF5

GOLDEN STATE FC LLC - SMF5 (Continued) **S121783009**

Env Int Type Code:	HMBP
Program ID:	10748062
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	38.400290
Longitude:	-121.948790

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Evan O'Brien
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:	Golden State FC LLC - SMF5
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:	(415) 810-3955

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

Affiliation Type Desc:	Environmental Contact
Entity Name:	Jim Monroe
Entity Title:	Not reported
Affiliation Address:	24208 San Michelle Rd
Affiliation City:	Moreno Valley
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92551
Affiliation Phone:	(909) 358-2658

Affiliation Type Desc:	Identification Signer
Entity Name:	Evan O'Brien
Entity Title:	Environmental Consultant
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

GOLDEN STATE FC LLC - SMF5 (Continued) **S121783009**

Affiliation Type Desc:	Legal Owner
Entity Name:	Golden State FC LLC
Entity Title:	Not reported
Affiliation Address:	P.O. Box 80842
Affiliation City:	Seattle
Affiliation State:	WA
Affiliation Country:	United States
Affiliation Zip:	98108
Affiliation Phone:	(206) 413-4526

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	300 Crocker Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	Golden State FC LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

NPDES:

Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S48I027605
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:	02/13/2018
Operator Name:	Golden State FC LLC
Operator Address:	NA Environmental Dept
Operator City:	Seattle
Operator State:	Washington

GOLDEN STATE FC LLC - SMF5 (Continued) **S121783009**

Operator Zip:	98108

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	5S
Regulatory Measure ID:	494289
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	5S48I027605
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	02/13/2018
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Golden State FC LLC
Discharge Address:	NA Environmental Dept
Discharge City:	Seattle
Discharge State:	Washington
Discharge Zip:	98108
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported

GOLDEN STATE FC LLC - SMF5 (Continued) **S121783009**

Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Facility Status:	Active
NPDES Number:	CAS000001
Region:	5S
Agency Number:	0
Regulatory Measure ID:	494289
Place ID:	Not reported
Order Number:	97-03-DWQ
WDID:	5S48I027605
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	02/13/2018
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	NA Environmental Dept
Discharge Name:	Golden State FC LLC
Discharge City:	Seattle
Discharge State:	Washington
Discharge Zip:	98108
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	5S
Regulatory Measure ID:	494289
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported

GOLDEN STATE FC LLC - SMF5 (Continued) **S121783009**

WDID:	5S48I027605
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	02/13/2018
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Golden State FC LLC
Discharge Address:	NA Environmental Dept
Discharge City:	Seattle
Discharge State:	Washington
Discharge Zip:	98108
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported

GOLDEN STATE FC LLC - SMF5 (Continued) **S121783009**

Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CERS TANKS:

Site ID:	427949
CERS ID:	10748062
CERS Description:	Chemical Storage Facilities

Coordinates:

Site ID:	427949
Facility Name:	Golden State FC LLC - SMF5
Env Int Type Code:	HMBP
Program ID:	10748062
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	38.400290
Longitude:	-121.948790

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Evan O'Brien
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:	Golden State FC LLC - SMF5
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:	(415) 810-3955

Affiliation Type Desc:	CUPA District
Entity Name:	Solano County Env Health
Entity Title:	Not reported
Affiliation Address:	675 Texas Street, Suite 5500
Affiliation City:	Fairfield
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94533
Affiliation Phone:	(707) 784-6765

GOLDEN STATE FC LLC - SMF5 (Continued) **S121783009**

Affiliation Type Desc:	Environmental Contact
Entity Name:	Jim Monroe
Entity Title:	Not reported
Affiliation Address:	24208 San Michelle Rd
Affiliation City:	Moreno Valley
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92551
Affiliation Phone:	(909) 358-2658

Affiliation Type Desc:	Identification Signer
Entity Name:	Evan O'Brien
Entity Title:	Environmental Consultant
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:	Golden State FC LLC
Entity Title:	Not reported
Affiliation Address:	P.O. Box 80842
Affiliation City:	Seattle
Affiliation State:	WA
Affiliation Country:	United States
Affiliation Zip:	98108
Affiliation Phone:	(206) 413-4526

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	300 Crocker Dr
Affiliation City:	Vacaville
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95688
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	Golden State FC LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

16 NNE 1/4-1/2 0.256 mi. 1351 ft. | **INTERSTATE OIL COMPANY**
917 COTTING LANE
VACAVILLE, CA 92101 | **LUST EMI CERS** | **S108432135 N/A**

Relative: Higher

Actual: 112 ft.

LUST:

Lead Agency:	SOLANO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000000211
Global Id:	T10000000211
Latitude:	38.397474
Longitude:	-121.953915
Status:	Completed - Case Closed
Status Date:	07/24/2013
Case Worker:	Not reported
RB Case Number:	480231
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	50085
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel, Gasoline
Site History:	Not reported

LUST:

Global Id:	T10000000211
Action Type:	Other
Date:	08/14/2008
Action:	Leak Stopped
Global Id:	T10000000211
Action Type:	ENFORCEMENT
Date:	07/02/2008
Action:	File review
Global Id:	T10000000211
Action Type:	ENFORCEMENT
Date:	12/26/2008
Action:	File review
Global Id:	T10000000211
Action Type:	Other
Date:	08/14/2008
Action:	Leak Reported
Global Id:	T10000000211
Action Type:	ENFORCEMENT
Date:	07/27/2011
Action:	Staff Letter
Global Id:	T10000000211
Action Type:	ENFORCEMENT
Date:	07/24/2013
Action:	Closure/No Further Action Letter

LUST:

Global Id:	T10000000211
Status:	Completed - Case Closed
Status Date:	07/24/2013

INTERSTATE OIL COMPANY (Continued) **S108432135**

Global Id: T10000000211
Status: Open - Assessment & Interim Remedial Action
Status Date: 08/15/2008

Global Id: T10000000211
Status: Open - Case Begin Date
Status Date: 07/02/2008

Global Id: T10000000211
Status: Open - Eligible for Closure
Status Date: 06/11/2013

SOLANO CO. LUST:
Region: SOLANO
Facility ID: 50085
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: 530-662-5481
Program: 29S
Inventory Number: 1
Inventory Type: LOP - Soil Site (127)
Inventory Description: Closed 2/27/15
Last service/permit exp: ISSUANCE OF A CLOSURE DOCUMENT
Last service date: 07/24/2013
District: SUP-DIST NO 3031
Inspector: Ambrose, Chris S
Call Back: Not reported

EMI:
Year: 2005
County Code: 48
Air Basin: SV
Facility ID: 5116
Air District Name: YS
SIC Code: 5541
Air District Name: YOLO/SOLANO AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .3512998092943892401
Reactive Organic Gases Tons/Yr: .35
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2006
County Code: 48
Air Basin: SV
Facility ID: 5116
Air District Name: YS
SIC Code: 5541
Air District Name: YOLO/SOLANO AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported

INTERSTATE OIL COMPANY (Continued) **S108432135**

Total Organic Hydrocarbon Gases Tons/Yr:	.3512998092943892401
Reactive Organic Gases Tons/Yr:	.35
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2007
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3814112215196226036
Reactive Organic Gases Tons/Yr:	.38
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2008
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.1907056107598113018
Reactive Organic Gases Tons/Yr:	.19
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2009
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.19070561075981099
Reactive Organic Gases Tons/Yr:	0.19
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0

INTERSTATE OIL COMPANY (Continued) **S108432135**

Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year:	2010
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.20074274816822199
Reactive Organic Gases Tons/Yr:	0.20000000000000001
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2011
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.20074274817
Reactive Organic Gases Tons/Yr:	0.2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2012
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.20074274817
Reactive Organic Gases Tons/Yr:	0.2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2013
County Code:	48
Air Basin:	SV
Facility ID:	5116

INTERSTATE OIL COMPANY (Continued) **S108432135**

Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.26
Reactive Organic Gases Tons/Yr:	0.26
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2014
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.26
Reactive Organic Gases Tons/Yr:	0.26
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2015
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO/SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.26
Reactive Organic Gases Tons/Yr:	0.26
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2016
County Code:	48
Air Basin:	SV
Facility ID:	5116
Air District Name:	YS
SIC Code:	5541
Air District Name:	YOLO-SOLANO AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.3

INTERSTATE OIL COMPANY (Continued) **S108432135**

Reactive Organic Gases Tons/Yr:	0.3
Carbon Monoxide Emissions Tons/Yr:	Not reported
NOX - Oxides of Nitrogen Tons/Yr:	Not reported
SOX - Oxides of Sulphur Tons/Yr:	Not reported
Particulate Matter Tons/Yr:	Not reported
Part. Matter 10 Micrometers and Smllr Tons/Yr:	Not reported

CERS TANKS:

Site ID:	215348
CERS ID:	T10000000211
CERS Description:	Leaking Underground Storage Tank Cleanup Site

---

17 West 1/4-1/2 0.342 mi. 1807 ft.

WABCO CALIF REPAIR CENTER
4977 ALLISON PARKWAY
VACAVILLE, CA 95688

RCRA-SQG **1000175655**
CPS-SLIC **CAD982503831**

Relative: Higher

Actual: 142 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	WABCO CALIF REPAIR CENTER
Facility address:	4977 ALLISON PARKWAY VACAVILLE, CA 95688
EPA ID:	CAD982503831
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	AMERICAN STANDARD
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212

WABCO CALIF REPAIR CENTER (Continued) **1000175655**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/04/1990
Site name: WABCO CALIF REPAIR CENTER
Classification: Large Quantity Generator

Violation Status: No violations found

SLIC REG 5:
Region: 5
Facility Status: Remediation Completed
Unit: Facility is a Spill or site
Pollutant: TPH
Lead Agency: Not reported
Date Filed: 04/25/91
Report Date: / /
Date Added: Not reported
Date Closed: Not reported

18
North
1/4-1/2
0.359 mi.
1893 ft.

BIG O TIRES NORTHERN CALIFORNI
877 COTTING COURT
VACAVILLE, CA 95688

LUST **S104493321**
HIST UST **N/A**
CHMIRS
HIST CORTESE
CERS

Relative:
Higher

Actual:
114 ft.

LUST:
Lead Agency: SOLANO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0609500418
Global Id: T0609500418
Latitude: 38.398508
Longitude: -121.954532
Status: Completed - Case Closed

BIG O TIRES NORTHERN CALIFORNI (Continued) **S104493321**

Status Date:	08/09/1995
Case Worker:	MCK
RB Case Number:	480178
Local Agency:	SOLANO COUNTY LOP
File Location:	Not reported
Local Case Number:	50096
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0609500418
Contact Type:	Local Agency Caseworker
Contact Name:	MISTY C. KALTREIDER
Organization Name:	SOLANO COUNTY LOP
Address:	675 TEXAS STREET, SUITE 5500
City:	FAIRFIELD
Email:	mkaltreider@solanocounty.com
Phone Number:	7077846765

LUST:

Global Id:	T0609500418
Action Type:	Other
Date:	11/04/1993
Action:	Leak Reported
Global Id:	T0609500418
Action Type:	ENFORCEMENT
Date:	07/14/1995
Action:	Closure/No Further Action Letter
Global Id:	T0609500418
Action Type:	Other
Date:	11/18/1993
Action:	Leak Discovery
Global Id:	T0609500418
Action Type:	Other
Date:	11/18/1993
Action:	Leak Stopped

LUST:

Global Id:	T0609500418
Status:	Completed - Case Closed
Status Date:	08/09/1995
Global Id:	T0609500418
Status:	Open - Case Begin Date
Status Date:	11/04/1993
Global Id:	T0609500418
Status:	Open - Site Assessment
Status Date:	11/18/1993

LUST REG 5:

BIG O TIRES NORTHERN CALIFORNI (Continued) **S104493321**

Region: 5
Status: Case Closed
Case Number: 480178
Case Type: Soil only
Substance: DIESEL
Staff Initials: JIM
Lead Agency: Local
Program: LUST
MTBE Code: N/A

SOLANO CO. LUST:
Region: SOLANO
Facility ID: 50096
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: 707-451-7013
Program: 29S
Inventory Number: 1
Inventory Type: LOP - Closed Site (128)
Inventory Description: Not reported
Last service/permit exp: Not reported
Last service date: Not reported
District: SUP-DIST NO 3035
Inspector: Clark, Max
Call Back: Not reported

HIST UST:
File Number: 000211C0
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000211C0.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:

CHMIRS:
OES Incident Number: 17-1861
OES notification: 03/03/2017
OES Date: Not reported
OES Time: Not reported

BIG O TIRES NORTHERN CALIFORNI (Continued) **S104493321**

Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Merchant/Business
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	SEWAGE
Measure:	Gal(s)
Other:	Not reported
Date/Time:	900
Year:	2017
Agency:	City of Vacaville
Incident Date:	03/03/2017
Admin Agency:	Solano County Environmental Management
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Sewage - Raw
Quantity Released:	49.5
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No

BIG O TIRES NORTHERN CALIFORNI (Continued) **S104493321**

#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	No
Fatals:	No
Comments:	Not reported
Description:	Blockage in lateral line caused the release, material flowed from a clean out onto concrete and asphalt then into a storm basin, all material was recovered, RP handled the containment and clean up.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	48
Reg By:	LTNKA
Reg Id:	480178

CERS TANKS:

Site ID:	258669
CERS ID:	T0609500418
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	MISTY C. KALTREIDER - SOLANO COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	675 TEXAS STREET, SUITE 5500
Affiliation City:	FAIRFIELD
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	7077846765

19
NNW
1/4-1/2
0.361 mi.
1905 ft.

SPRIG CIRCUITS, INC.
765-A EUBANKS DRIVE (UNITS A,
VACAVILLE, CA 95688

RCRA-LQG **1000252519**
ENVIROSTOR **CAD980881098**

Relative:
Higher

Actual:
115 ft.

RCRA-LQG:

Date form received by agency:	05/28/2010
Facility name:	SPRIG CIRCUITS, INC.
Facility address:	765-A EUBANKS DRIVE (UNITS A, B, & B-1) VACAVILLE, CA 95688
EPA ID:	CAD980881098
Mailing address:	765-A EUBANKS DR. VACAVILLE, CA 95688
Contact:	TYLER CHRISTENSEN
Contact address:	765-A EUBANKS DR. VACAVILLE, CA 95688
Contact country:	US
Contact telephone:	707-447-7744
Contact email:	TYLER@SPRIGCIRCUITS.COIM

SPRIG CIRCUITS, INC. (Continued) **1000252519**

EPA Region: 09
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: SPRIG CIRCUITS INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KLP PROPERTIES
Owner/operator address: 4432 PIEDMONT AVENUE
OAKLAND, CA 94611
Owner/operator country: US
Owner/operator telephone: 510-654-4257
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 07/20/2005
Owner/Op end date: Not reported

Owner/operator name: SPRIG CIRCUITS, INC.

SPRIG CIRCUITS, INC. (Continued) **1000252519**

Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/01/1983
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

SPRIG CIRCUITS, INC. (Continued) **1000252519**

Historical Generators:
Date form received by agency: 02/11/2008
Site name: SPRIG CIRCUITS, INC.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/28/2006
Site name: SPRIG CIRCUITS, INC.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A

SPRIG CIRCUITS, INC. (Continued) **1000252519**

CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/26/2004
Site name: SPRIG CIRCUITS, INC.
Classification: Large Quantity Generator

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 03/04/2002
Site name: SPRIG CIRCUITS INC

SPRIG CIRCUITS, INC. (Continued) **1000252519**

Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Site name: SPRIG CIRCUITS, INC.
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Site name: SPRIG CIRCUITS, INC.
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: SPRIG CIRCUITS INC
Classification: Large Quantity Generator

Date form received by agency: 02/28/1996
Site name: SPRIG CIRCUITS, INC.
Classification: Large Quantity Generator

Date form received by agency: 03/30/1994
Site name: SPRING CIRCUITS INC
Classification: Large Quantity Generator

Date form received by agency: 02/25/1992
Site name: SPRIG CIRCUITS INC
Classification: Large Quantity Generator

Date form received by agency: 12/20/1983
Site name: SPRIG CIRCUITS INC
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 11/17/2010
Date achieved compliance: 03/22/2011
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 08/15/1988
Date achieved compliance: 11/19/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/15/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

SPRIG CIRCUITS, INC. (Continued) **1000252519**

Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 08/15/1988
Date achieved compliance: 11/19/1992
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 08/21/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 17000
Final penalty amount: 17000
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/15/1988
Date achieved compliance: 11/19/1989
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 08/21/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 17000
Final penalty amount: 17000
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/15/1988
Date achieved compliance: 11/19/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/15/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 05/19/1988
Date achieved compliance: 07/27/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/30/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

SPRIG CIRCUITS, INC. (Continued) **1000252519**

Evaluation Action Summary:

Evaluation date:	11/17/2010
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - Pre-transport
Date achieved compliance:	03/22/2011
Evaluation lead agency:	EPA

Evaluation date:	08/15/1988
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	LDR - General
Date achieved compliance:	11/19/1992
Evaluation lead agency:	State

Evaluation date:	08/15/1988
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	11/19/1989
Evaluation lead agency:	State

Evaluation date:	05/19/1988
Evaluation:	FOCUSED COMPLIANCE INSPECTION
Area of violation:	LDR - General
Date achieved compliance:	07/27/1989
Evaluation lead agency:	State

ENVIROSTOR:

Facility ID:	71002695
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 Sacramento
Assembly:	Not reported
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	38.39914
Longitude:	-121.9581
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD980881098
Alias Type:	EPA Identification Number
Alias Name:	110000886872
Alias Type:	EPA (FRS #)
Alias Name:	71002695

SPRIG CIRCUITS, INC. (Continued) **1000252519**

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

20
WSW
1/4-1/2
0.438 mi.
2314 ft.

COURT GALVANIZING, INC.
4937 ALLISON PARKWAY
VACAVILLE, CA 95688

RCRA-LQG **1007200286**
ENVIROSTOR **CAL000126952**
NPDES
CIWQS

Relative:
Higher

Actual:
133 ft.

RCRA-LQG:
Date form received by agency: 02/26/2006
Facility name: COURT GALVANIZING, INC.
Facility address: 4937 ALLISON PARKWAY
VACAVILLE, CA 95688
EPA ID: CAL000126952
Contact: JAN REID
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: 707-448-4848
Telephone ext.: 104
Contact email: NA
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: COURT GALVANIZING, INC.
Owner/operator address: Not reported
Not reported
Owner/operator country: US

COURT GALVANIZING, INC. (Continued) **1007200286**

Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/26/1994
Owner/Op end date: Not reported

Owner/operator name: COURT GALVANIZING, INC.
Owner/operator address: 4937 ALLISON PARKWAY
VACAVILLE, CA 95688
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/26/1994
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

Historical Generators:
Date form received by agency: 02/26/2004
Site name: COURT GALVANIZING, INC.
Classification: Large Quantity Generator

. Waste code: D007
. Waste name: CHROMIUM

Date form received by agency: 02/26/2002
Site name: COURT GALVANIZING INC
Classification: Large Quantity Generator

COURT GALVANIZING, INC. (Continued) **1007200286**

Violation Status: No violations found

ENVIROSTOR:

Facility ID:	71003336
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 Sacramento
Assembly:	11
Senate:	03
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	38.38924
Longitude:	-121.9658
APN:	0133220130, 0133220140, 0133220150, 0133220160, 0133330190
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	0133220130
Alias Type:	APN
Alias Name:	0133220140
Alias Type:	APN
Alias Name:	0133220150
Alias Type:	APN
Alias Name:	0133220160
Alias Type:	APN
Alias Name:	0133330190
Alias Type:	APN
Alias Name:	CAL000126952
Alias Type:	EPA Identification Number
Alias Name:	71003336
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

COURT GALVANIZING, INC. (Continued) **1007200286**

Schedule Due Date: Not reported
Schedule Revised Date: Not reported

NPDES:

Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S48I012249
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	04/10/1996
Operator Name:	Court Galvanizing
Operator Address:	4937 Allison Pkwy
Operator City:	Vacaville
Operator State:	California
Operator Zip:	95688

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	5S
Regulatory Measure ID:	202038
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	5S48I012249
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	04/10/1996
Status:	Active
Status Date:	04/10/1996
Place Size:	2.14
Place Size Unit:	Acres

COURT GALVANIZING, INC. (Continued) **1007200286**

Contact:	Jan Reid
Contact Title:	Not reported
Contact Phone:	707-448-4848
Contact Phone Ext:	Not reported
Contact Email:	janreid@courtgalvanizinginc.com
Operator Name:	Court Galvanizing
Operator Address:	4937 Allison Pkwy
Operator City:	Vacaville
Operator State:	California
Operator Zip:	95688
Operator Contact:	Bill Armstrong
Operator Contact Title:	General Manager
Operator Contact Phone:	707-448-4848
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	billarmstrong@courtgalvanizinginc.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	707-448-4848
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Horse Creekulatis Creek
Certifier:	William Armstrong
Certifier Title:	General Manager
Certification Date:	23-JUN-15
Primary Sic:	3479-Coating, Engraving, and Allied Services, NEC
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	5S
Regulatory Measure ID:	202038
Order Number:	97-03-DWQ

COURT GALVANIZING, INC. (Continued) **1007200286**

Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	5S48I012249
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/10/1996
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Court Galvanizing
Discharge Address:	4937 Allison Pkwy
Discharge City:	Vacaville
Discharge State:	California
Discharge Zip:	95688
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported

COURT GALVANIZING, INC. (Continued) **1007200286**

Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Facility Status:	Active
NPDES Number:	CAS000001
Region:	5S
Agency Number:	0
Regulatory Measure ID:	202038
Place ID:	Not reported
Order Number:	97-03-DWQ
WDID:	5S48I012249
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/10/1996
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	4937 Allison Pkwy
Discharge Name:	Court Galvanizing
Discharge City:	Vacaville
Discharge State:	California
Discharge Zip:	95688
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	5S
Regulatory Measure ID:	202038
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	5S48I012249
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported

COURT GALVANIZING, INC. (Continued) **1007200286**

Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	04/10/1996
Status:	Active
Status Date:	04/10/1996
Place Size:	2.14
Place Size Unit:	Acres
Contact:	Jan Reid
Contact Title:	Not reported
Contact Phone:	707-448-4848
Contact Phone Ext:	Not reported
Contact Email:	janreid@courtgalvanizinginc.com
Operator Name:	Court Galvanizing
Operator Address:	4937 Allison Pkwy
Operator City:	Vacaville
Operator State:	California
Operator Zip:	95688
Operator Contact:	Bill Armstrong
Operator Contact Title:	General Manager
Operator Contact Phone:	707-448-4848
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	billarmstrong@courtgalvanizinginc.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	707-448-4848
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Horse Creekulatis Creek
Certifier:	William Armstrong
Certifier Title:	General Manager
Certification Date:	23-JUN-15
Primary Sic:	3479-Coating, Engraving, and Allied Services, NEC

COURT GALVANIZING, INC. (Continued) **1007200286**

Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	5S
Regulatory Measure ID:	202038
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	5S48I012249
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/10/1996
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Court Galvanizing
Discharge Address:	4937 Allison Pkwy
Discharge City:	Vacaville
Discharge State:	California
Discharge Zip:	95688
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported

COURT GALVANIZING, INC. (Continued) **1007200286**

Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Agency:	Court Galvanizing
Agency Address:	4937 Allison Pkwy, Vacaville, CA 95688
Place/Project Type:	Industrial - Coating, Engraving, and Allied Services, NEC
SIC/NAICS:	3479
Region:	5S
Program:	INDSTW
Regulatory Measure Status:	Active
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	5S48I012249
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	04/10/1996
Termination Date:	Not reported
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	38.38923
Longitude:	-121.965815

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

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: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

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: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/04/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly 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: 02/06/2019
Date Data Arrived at EDR: 02/15/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 28

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 04/29/2019
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: 02/06/2019
Date Data Arrived at EDR: 02/15/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 28

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 10/25/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 43

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/07/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 06/10/2019
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: 02/04/2019
Date Data Arrived at EDR: 02/08/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 28

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database 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: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an 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: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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 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: Varies

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 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

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: Quarterly

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 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 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

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

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: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
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: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
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: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
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: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Semi-Annually

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: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
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: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

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

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: 12/20/2018
Date Data Arrived at EDR: 12/21/2018
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/19/2019
Next Scheduled EDR Contact: 07/01/2019
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: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 02/09/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/27/2019
Number of Days to Update: 43

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
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: 01/29/2019
Next Scheduled EDR Contact: 05/13/2019
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: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
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: 02/01/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
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: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 04/22/2019
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: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
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: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Quarterly

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

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/04/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 10/11/2018
Number of Days to Update: 29

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

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

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: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 32

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 05/06/2019
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: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 27

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/08/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 41

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/24/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 40

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)
Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)
Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: 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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 04/03/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
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: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

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: 02/15/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2019
Date Data Arrived at EDR: 02/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 08/13/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 36

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/14/2018
Date Data Arrived at EDR: 10/11/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 57

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
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: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
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: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
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: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
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: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
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: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/11/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 38

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/22/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 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: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
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: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2018
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 Interior
Telephone: 202-208-2609
Last EDR Contact: 03/21/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 10

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
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: 03/03/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/21/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 39

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
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: 12/20/2018
Date Data Arrived at EDR: 12/21/2018
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 69

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
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: 01/23/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 34

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/26/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 09/19/2018
Number of Days to Update: 7

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 47

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 10/04/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 27

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 47

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/02/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/10/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/11/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 37

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

ICE: ICE
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 56

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/08/2019
Next Scheduled EDR Contact: 04/22/2019
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: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/19/2018
Date Data Arrived at EDR: 09/20/2018
Date Made Active in Reports: 10/19/2018
Number of Days to Update: 29

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
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: 04/27/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 34

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 07/11/2018
Date Made Active in Reports: 09/13/2018
Number of Days to Update: 64

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
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: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

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: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/18/2019
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data
The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)
Non-Case Information sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)
Other Oil & Gas Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

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: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 59

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 58

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/24/2019
Date Data Arrived at EDR: 01/25/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 39

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 17

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 01/16/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 28

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 10/18/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 27

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/12/2019
Number of Days to Update: 28

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/17/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/19/2018
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 56

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/15/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/15/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 04/29/2019
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: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Semi-Annually

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/02/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 28

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 13

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
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: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/29/2018
Date Data Arrived at EDR: 08/31/2018
Date Made Active in Reports: 09/19/2018
Number of Days to Update: 19

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 34

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 02/05/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 04/01/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 01/25/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/08/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 31

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/29/2019
Date Data Arrived at EDR: 01/31/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 34

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/29/2019
Date Data Arrived at EDR: 01/31/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 36

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 01/04/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 60

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 67

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 11/15/2018
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 27

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 33

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/19/2019
Next Scheduled EDR Contact: 05/20/2019
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: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing
A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 03/06/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

SAN DIEGO CO. SAM: Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local 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: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/15/2019
Date Made Active in Reports: 03/14/2019
Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/23/2019
Number of Days to Update: 36

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 15

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
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: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 27

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/21/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/08/2019
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 55

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 12/13/2018
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 33

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 28

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 42

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 35

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
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: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Annually

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/07/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Quarterly

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 42

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/26/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 21

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 13

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 22

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
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: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/04/2019
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 07/13/2018
Date Made Active in Reports: 08/01/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/30/2019
Date Made Active in Reports: 02/14/2019
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/30/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/19/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/11/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

APPENDIX E – Additional Information

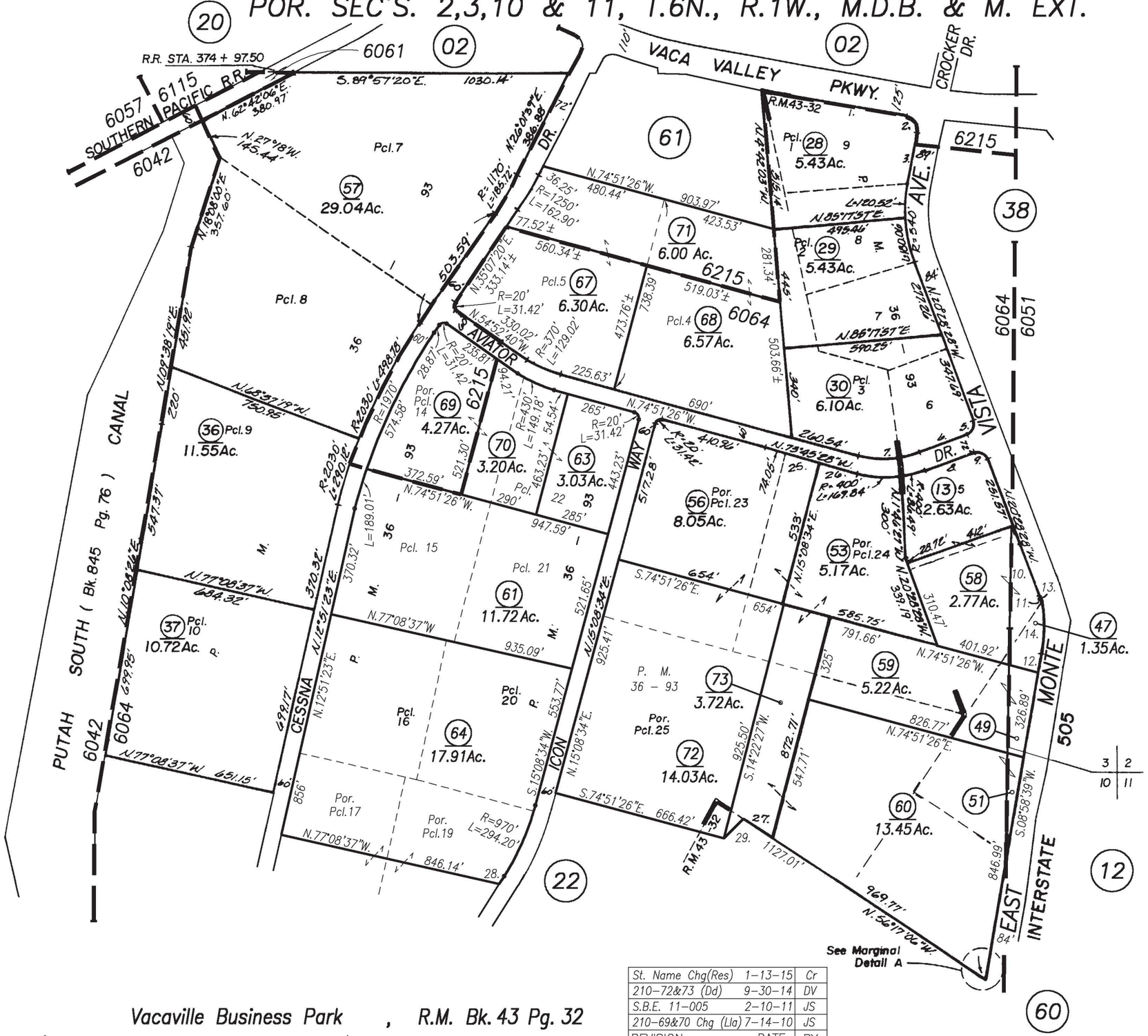
- Assessor’s Parcel Map

POR. LOT 37, RANCHO LOS PUTOS
POR. SEC'S. 2,3,10 & 11, T.6N., R.1W., M.D.B. & M. EXT.

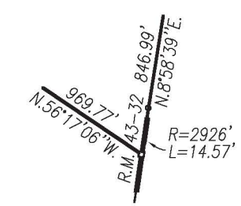
Tax Area Code
6051
6064
6215

133–21

1"= 400'



1.	S.79°34'59"E.		554.82'
2.	R=50'	L=	79.41'
3.	N.11°25'05"E.		179.52'
4.	N.17°42'W.		30.00'
5.	R=40'	L=	62.83'
6.	N.69°31'32"E.		193.17'
7.	R=370'	L=	230.01'
8.	N.69°31'32"E.		198.00'
9.	R=40'	L=	62.83'
10.	S.20°28'28"E.		285.23'
11.	R=412'	L=	10.24'
12.	S.08°58'39"W.		79.31'
13.	N.33°33'49"E.		9.39'
14.	R=420'	L=	194.90'
15.	S.74°51'26"E.		261.55'
25.	N.73°45'28"W.		149.03'
26.	N.73°45'28"W.		135.51'
27.	N.56°17'06"W.		157.24'
28.	S.32°31'13"W.		34.99'
29.	S.33°42'54"W.		108.43'



MARGINAL DETAIL "A"
Scale: NONE

NOTE: This map is for assessment purposes only. It is not intended to define legal boundary rights or imply compliance with land division laws.

St. Name Chg(Res)	1–13–15	Cr
210–72&73 (Dd)	9–30–14	DV
S.B.E. 11–005	2–10–11	JS
210–69&70 Chg (Lla)	7–14–10	JS
REVISION	DATE	BY

Vacaville Business Park , R.M. Bk. 43 Pg. 32

Assessor's Block Numbers Shown in Ellipses, Assessor's Parcel Numbers Shown in Circles

CITY OF VACAVILLE
Assessor's Map Bk. 133 Pg. 21
County of Solano, Calif.

16–17

Appendix F

Field Noise Measurement Data (Vaca Valley Hotel Project)

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: HYATT HOUSE VACAVILLE — PROJECT #: 11777
SITE ID: ST1
SITE ADDRESS: E. MONTE VISTA AVE. — OBSERVER(S): JVL
START DATE: 3/21/19 — END DATE: 3/21/19
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 63 F — HUMIDITY: 70 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD: 2 MPH — DIR. N NE S (SE) S SW W NW — VARIABLE (STEADY) GUSTY
SKY: SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: NL-32 — TYPE (1) 2 — SERIAL # 01030561
CALIBRATOR: NC-74 — SERIAL # 3461857 6
CALIBRATION CHECK — PRE-MEASUREMENT: 94 dBA SPL — POST-MEASUREMENT: 94 dBA SPL — WINDSCRN: X

SETTINGS: (A-WTD) (SLOW) FAST (FRONTAL) RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
1	12:20	12:40	66.6	82.4	50.7	53.1	58.9	71.3	

COMMENTS: NORTH EDGE OF MINI-STORAGE FACILITY ON EAST SIDE OF E. MONTE VISTA

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ARTERIAL — DIST. TO RDWY C/L OR (EOP): 66 FEET
TRAFFIC COUNT DURATION: 20 MIN — SPEED: 45 — ___ MIN — SPEED

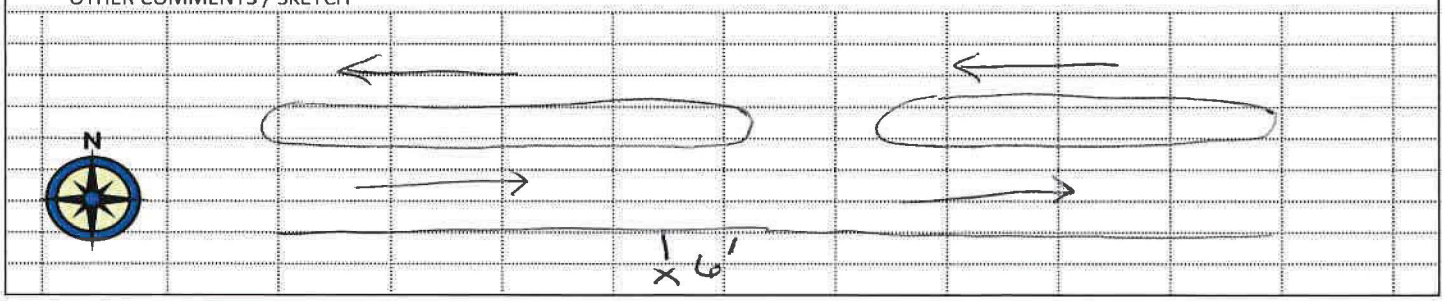
COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ___	COUNT 2 (OR RDWY 2) NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	76								
MED TRKS	1								
HVY TRKS	1								
BUSES									
MOTRCLS									

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: 2 LIGHT PLANE OVERFLIGHTS

DESCRIPTION / SKETCH

TERRAIN: (HARD) SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: HYATT HOUSE VACAVILLE — PROJECT #: 11777
SITE ID: ST2
SITE ADDRESS: VACA VALLEY PARKWAY — OBSERVER(S): JVL
START DATE: 3/21/19 — END DATE: 3/21/19
START TIME — END TIME

METEOROLOGICAL CONDITIONS

TEMP 63 F — HUMIDITY 70 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD 2 MPH — DIR. N NE S (SE) S SW W NW — VARIABLE (STEADY) GUSTY
SKY: SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: NL-32 — TYPE (1) 2 — SERIAL # 01030561
CALIBRATOR: NC-74 — SERIAL # 34678576
CALIBRATION CHECK — PRE-MEASUREMENT 94 dBA SPL — POST-MEASUREMENT 94 dBA SPL — WINDSCRN X

SETTINGS: (A-WTD) (SLOW) FAST (FRONTAL) RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
1	12:00	12:10	64.8	70.7	47.8	34.2	64.0	68.3	

COMMENTS
FRONT EDGE OF SIDEWALK NEXT TO DRAINAGE DITCH, EVEN WITH WEST EDGE OF WATER AGENCY PARKING LOT.

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ARTERIAL — DIST. TO RDWY C/L OR (EOP) 74 FEET
TRAFFIC COUNT DURATION: 10 MIN — SPEED 45 — ___ MIN — SPEED

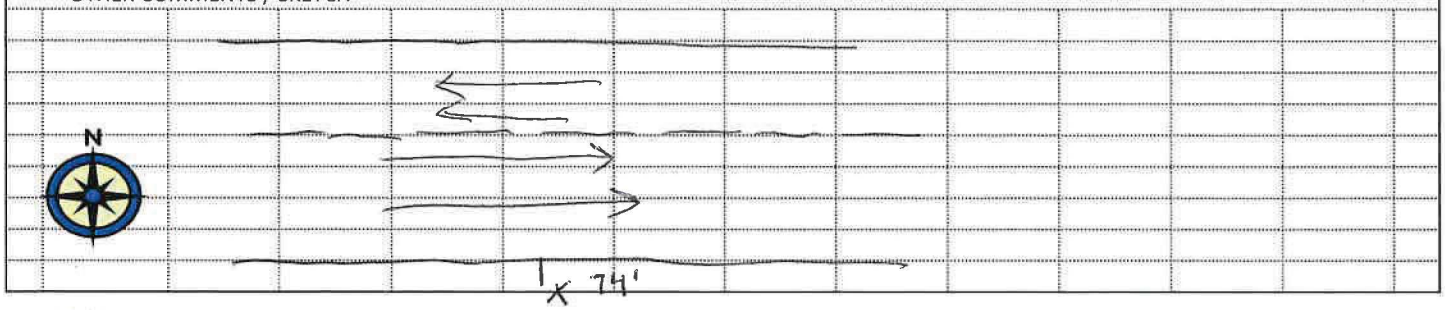
COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2) NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	136								
MED TRKS	5								
HVY TRKS	7								
BUSES									
MOTRCLS									

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: HYATT HOUSE VACAVILLE — PROJECT #: 11777
SITE ID: ST3
SITE ADDRESS: ~~VACA~~ AVIATOR DRIVE — OBSERVER(S): JVL
START DATE: 3/21/19 — END DATE: 3/21/19
START TIME — END TIME

METEOROLOGICAL CONDITIONS

TEMP 63 F — HUMIDITY 70 % R.H. — WIND: CALM, (LIGHT), MODERATE
WINDSPD 2 MPH — DIR. N NE S (SE) S SW W NW — VARIABLE, (STEADY), GUSTY
SKY: SUNNY, CLEAR, (OVRCAST), PRTLY CLDY, FOG, RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: NL-32 — TYPE (1) 2 — SERIAL # 01030561
CALIBRATOR: NC-74 — SERIAL # 34678576
CALIBRATION CHECK — PRE-MEASUREMENT 94 dBA SPL — POST-MEASUREMENT 94 dBA SPL — WINDSCRN X

SETTINGS: (A-WTD), (SLOW), FAST, (FRONTAL), RANDOM, ANSI, OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
1	11:20	11:40	66.7	82.3	43.5	45.9	52.9	70.9	

COMMENTS

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC), AIRCRAFT, RAIL, INDUSTRIAL, OTHER:
ROADWAY TYPE: COLLECTOR — DIST. TO RDWY C/L OR (EOP): 5 FEET

TRAFFIC COUNT DURATION: ___ MIN — SPEED 40 — ___ MIN — SPEED

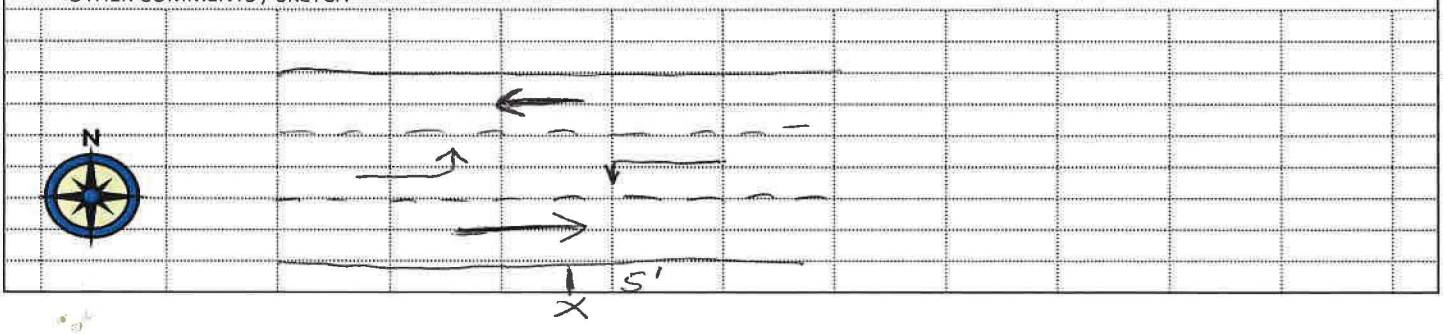
COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2) NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	55								
MED TRKS	2								
HVY TRKS	3								
BUSES									
MOTRCLS									

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT, RUSTLING LEAVES, DIST. BARKING DOGS, BIRDS, DIST. INDUSTRIAL, DIST. KIDS PLAYING, DIST. CONVRSTNS / YELLING, DIST. TRAFFIC (LIST RDWYS BELOW), DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN: HARD, SOFT, MIXED, FLAT, OTHER:
PHOTOS
OTHER COMMENTS / SKETCH



Appendix G

Traffic Impact Analysis Memorandum

Memorandum

To:	City of Vacaville	**Date:**	April 27, 2018
Attn:	Gwen Owens	**Project:**	Cessna & Aviator Warehouse Building
From:	Kamesh Vedula, P.E., T.E. Zach Stinger, E.I.T.		
Re:	Traffic Impact Analysis Memorandum	**Job No.:**	25-1764-00
		File No.:	C2478MEM001.DOCX
CC:	Kenneth Isenhower III, E.I.T.		

Introduction

Omni-Means, a GHD Company, has prepared this Traffic Impact Analysis Memorandum (TIAM) to assess transportation impacts associated with the proposed project in the City of Vacaville, California. The term "project" as used in this TIAM refers to the proposed warehouse and office building development located in Vacaville.

Included in this technical memorandum are analysis and discussion of the following items:

- Quantification of the trip generation and trip distribution associated with the proposed project, and the resulting impacts on existing weekday AM and PM peak hour intersection operations.
- Potential base improvements and project-related mitigation measures that, if necessary, alleviate unacceptable traffic operations.

Consistent with the City of Vacaville's Traffic Impact Analysis guidelines, the following scenarios are analyzed for the proposed project:

- Existing Conditions
- Existing Plus Project Conditions
- Short Term Conditions
- Short Term Plus Project Conditions

Existing conditions quantify the current traffic operations at the study locations.

Existing Plus Project conditions refer to the analysis scenario in which traffic impacts associated with the proposed project are investigated in comparison to the *Existing* conditions scenario. Within this scenario, the project generated peak hour traffic volumes have been added to the *Existing* conditions volumes to obtain the *Existing Plus Project* volumes.

Short Term conditions refer to the analysis scenario in which traffic impacts associated with the approved projects near the proposed project location are investigated in comparison to the *Existing* conditions scenario. Within this scenario, the approved project generated peak hour traffic volumes have been added to the *Existing* conditions volumes to obtain the *Short Term* volumes.

Short Term Plus Project conditions refer to the analysis scenario in which traffic impacts associated with the approved and proposed projects are investigated in comparison to the *Short Term* conditions scenario. Within this scenario, the approved project generated peak hour traffic volumes have been added to the *Short Term* conditions volumes to obtain the *Short Term Plus Project* volumes.

The above traffic scenarios are described in further detail and evaluated in subsequent sections of this report.

Study Intersection

The following critical study intersection was selected in coordination with the City of Vacaville for analysis of weekday AM and PM peak hour conditions:

- E. Monte Vista Ave/Crocker Drive & Vaca Valley Parkway

Existing Traffic Volumes

Existing weekday AM and PM peak hour traffic volume counts for the study intersection were collected by Omni-Means on March 27, 2018. The AM peak hour is defined as one-hour of peak traffic flow (which is the highest total volume count over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday.

Level of Service Methodologies & Policies

The following section outlines the analysis methodologies and policies that will be used in the transportation impact study to quantify the measures of effectiveness for the analysis scenarios.

Level of Service Methodologies

Traffic operations will be quantified through the determination of "Level of Service" (LOS). Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection, or roadway segment, representing progressively worsening traffic conditions. LOS "A" represents free-flow operating conditions and LOS "F" represents over-capacity conditions. Levels of Service will be calculated for the study intersection control type using the *Synchro 10.0* (Trafficware) integrated computer software program.

Intersection Operations

Intersection Level of Service (LOS) will be calculated for all control types using *Synchro 10.0*. For a signalized intersection, an LOS determination is based on the calculated averaged delay for all approaches and movements. The vehicular-based LOS criteria for different types of intersection controls are presented in Table 1.

TABLE 1
INTERSECTION LEVEL OF SERVICE CRITERIA

Level of Service	Type of Flow	Delay	Maneuverability	Stopped Delay/Vehicle (sec)	
				Signalized/ Roundabouts	Unsignalized/ All-Way Stop
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10.0	≤ 10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10 and ≤ 20.0	>10 and ≤ 15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20 and ≤ 35.0	>15 and ≤ 25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35 and ≤ 55.0	>25 and ≤ 35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55 and ≤ 80.0	>35 and ≤ 50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	> 80.0	> 50.0

City Level of Service Policy

The City of Vacaville General Plan, adopted in August 2015, has the following policies relating to level of service and traffic congestion:

Policy TR-P3.1 Strive to maintain LOS C as the LOS goal at all intersections and interchanges to facilitate the safe and efficient movement of people, goods, and services. Design improvements to provide LOS C conditions based on the City's most recent 20+ year traffic forecast. At unsignalized intersections, maintain an overall LOS C standard with the worst approach to the intersection not exceeding LOS D.

Policy TR-P3.2 At signalized and all-way stop control intersections, LOS mid-D shall be the LOS significance threshold. At two-way stop control intersections, LOS mid-E shall be the LOS significance threshold on the worst approach.

Policy TR-P3.4 The City may allow LOS above the established LOS significance thresholds for a particular location as an interim level of service where improvements are programmed by the City that will improve the service to an acceptable level.

Policy TR-P3.5 The City may allow LOS above the established LOS significance thresholds for a particular location on the basis of specific findings described in Chapter 14.13 of the Vacaville Land Use and Development Code, Traffic Impact Mitigation Ordinance.

Consistent with City policy and the General Plan, this study will consider LOS "Mid-D" (<45 seconds of delay) as the standard acceptable threshold for the intersection service levels.

Mitigation Measure Requirements

Consistent with City policy and the General Plan, the following standards are recommended for this project:

Policy TR-P4.1 Evaluate development proposals based on the level of service standards prescribed in Policies TR-3.1 through TR-3.5.

Policy TR-P4.2 As part of development approvals, require reasonable demonstration that traffic improvements necessary to mitigate development in accordance with Policies TR-3.1 through TR-3.3 will be in place in time to accommodate trips generated by the project, or satisfy findings identified in Policies TR-3.4 and TR-3.5.

Technical Analysis Parameters

The traffic study provides a "preliminary operational level" evaluation of traffic operating conditions at intersections. The evaluation incorporated appropriate heavy vehicle adjustment factors, peak hour factors, and signal lost-time factors, etc. The *Synchro 10.0* (Trafficware) integrated computer software program has been used to analyze the study intersection. Table 2 summarizes the intersection technical analysis parameters used within the study.

TABLE 2
TECHNICAL ANALYSIS PARAMETERS

Technical Parameter	Assumption
1. Intersection Peak Hour Factor (PHF)	Intersection Overall, based on Existing Counts
2. Intersection Heavy Vehicle	Intersection Overall, based on Existing Counts, min. 2%
3. Signal Timings	Based on City's Timing Plans

Existing Traffic Operations

The *Existing* condition is the analysis scenario in which current operations at the study location are analyzed and establishes the baseline traffic conditions.

Intersection

Existing weekday AM and PM peak hour intersection traffic operations were quantified utilizing the existing traffic volumes and existing intersection lane geometrics and control. Table 3 presents intersection operations for the *Existing* conditions.

TABLE 3
EXISITING CONDITIONS INTERSECTION OPERATIONS

#	Intersection	Control Type[1]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy	Signal	Mid-D	27.1	C	36.1	D

Notes:
1. LOS = Delay based on average of all approaches for Signal

As presented in Table 3, the intersection of E. Monte Vista Ave/Crocker Drive & Vaca Valley Parkway is currently operating at an acceptable LOS.

Project Description

The term "project" as used in this memorandum refers to the proposed warehouse and office building development located in Vacaville.

The proposed project consists of the following land uses:

- 393 ksf of Warehousing
- 27 ksf of office space

Project Trip Generation

Project site trip generation has been estimated utilizing trip generation rates contained in the Institute of Transportation Engineers (ITE) Publication *Trip Generation 10th Edition.* Table 4 presents a summary of the land use and quantities for the proposed land use for the project, along with the corresponding ITE land use code from which trip generation characteristics were established.

TABLE 4
PROJECT TRIP GENERATION

Land Use Category (ITE Code)	Unit[1]	Daily Trip Rate/Unit[2]	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
			Total	In %	Out %	Total	In %	Out %
Office (710)	ksf	11.04	1.16	86%	14%	1.22	16%	84%
Warehousing (150)	ksf	1.74	0.18	77%	23%	0.19	27%	73%
Project Name	**Quantity (Units)**	**Daily Trips**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
Office Component	27	294	31	27	4	32	5	27
Warehouse Component	393	684	72	56	17	75	20	55
Net New Project Trips		**978**	**103**	**82**	**21**	**107**	**25**	**82**

Notes:
1. 1 ksf = 1,000 square feet
2. Trip rates based on ITE Trip Generation Manual 10th edition fitted-curve equations or average rates

As presented in Table 4, the proposed project will generate approximately 103 AM and 107 PM peak hour trips.

Project Trip Distribution

The directional trip distribution and specific assignment of project-generated trips were established based on an understanding of existing traffic flows and travel patterns within the vicinity of the project site. The proposed trip distribution percentages are listed below:

- 75% to/from the east via Vaca Valley Parkway
- 25% to/from the west via Vaca Valley Parkway

Project Site Access

The proposed project will have one full access driveway along Cessna Drive, six full access driveways along Aviator Drive, and two right in, right out driveways along E. Monte Vista Avenue.

Existing Plus Project Traffic Operations

Existing Plus Project conditions were simulated by superimposing traffic generated by the proposed project onto the *Existing* intersection and roadway traffic volumes.

Intersection

Table 5 presents a summary of the intersection operations for the weekday AM & PM peak hour scenarios for the *Existing Plus Project* conditions.

TABLE 5
EXISTING PLUS PROJECT CONDITIONS INTERSECTION OPERATIONS

#	Intersection	Control Type[1]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy	Signal	Mid-D	30.3	C	37.8	D

Notes:
1. LOS = Delay based on average of all approaches for Signal

As presented in Table 5, the intersection of E. Monte Vista Ave/Crocker Drive & Vaca Valley Parkway is projected to operate at an unacceptable LOS in the PM peak hour.

Short Term Traffic Operations

Short Term conditions were simulated by superimposing traffic generated by the approved projects near the proposed project location onto the *Existing* intersection and roadway traffic volumes. The approved/pending project list provided by the City of Vacaville indicated the following developments:

- A 263 ksf Warehouse development at the intersection of Eubanks Drive and Chancellor Court.
- The LDK 791 ksf Warehouse development on Midway Road west of Interstate 505.
- The Faizan 8 pump Gas Station/convenience store and 2.5 ksf Fast Food development at the intersection of Vaca Valley Parkway and E. Monte Vista Avenue.

Intersection

Table 6 presents a summary of the intersection operations for the weekday AM and PM peak hour scenarios for the *Short Term* conditions.

TABLE 6
SHORT TERM CONDITIONS INTERSECTION OPERATIONS

#	Intersection	Control Type[1]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy	Signal	Mid-D	29.7	C	37.7	D

Notes:
1. LOS = Delay based on average of all approaches for Signal

As presented in Table 6, the intersection of E. Monte Vista Ave/Crocker Drive & Vaca Valley Parkway is projected to operate at an acceptable LOS.

Short Term Plus Project Traffic Operations

Short Term Plus Project conditions were simulated by superimposing traffic generated by the project onto the *Short Term* intersection and roadway traffic volumes.

Intersection

Table 7 presents a summary of the intersection operations for the weekday AM and PM peak hour scenarios for the *Short Term Plus Project* conditions.

TABLE 7
SHORT TERM PLUS PROJECT CONDITIONS INTERSECTION OPERATIONS

#	Intersection	Control Type[1]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy	Signal	Mid-D	31.3	C	40.8	D

Notes:
1. LOS = Delay based on average of all approaches for Signal

As presented in Table 7, the intersection of E. Monte Vista Ave/Crocker Drive & Vaca Valley Parkway is projected to operate at an unacceptable LOS in the PM peak hour.

Project Impacts and Mitigation Measures

This section presents recommended project-related mitigation measures at the study intersections. These mitigation measures were developed based on the findings from the analysis presented in the prior section of the memorandum. The mitigations are provided for both *Existing* and *Short Term* conditions separately, so it may be possible that the same mitigations at one location are applicable for all conditions.

Impact Significance

In accordance with the August 2015 City of Vacaville General Plan, the following thresholds of significance are used to determine if the proposed project causes a significant impact and requires mitigation:

Signalized Intersections

- The project causes an acceptable LOS to decline to an unacceptable LOS.

Project Impacts

There are no significant impacts to the study intersection caused by the proposed project under Existing Plus Project and Short Term Plus Project conditions.

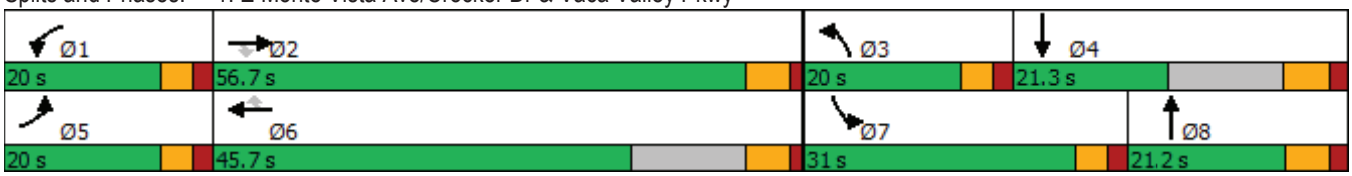
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	402	40	77	478	266	21	43	55	110	11	27
Future Volume (vph)	39	402	40	77	478	266	21	43	55	110	11	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		175	115		115	225		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			90			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.915			0.893	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1743	1482	1656	1743	1482	1656	1595	0	1656	1557	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	1743	1482	1656	1743	1482	1656	1595	0	1656	1557	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			155		41			30	
Link Speed (mph)		40			40			45			30	
Link Distance (ft)		760			901			405			584	
Travel Time (s)		13.0			15.4			6.1			13.3	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	44	452	45	87	537	299	24	48	62	124	12	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	452	45	87	537	299	24	110	0	124	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	10.7	10.7	9.0	10.7	10.7	9.0	10.2		9.0	10.3	
Total Split (s)	20.0	56.7	56.7	20.0	45.7	45.7	20.0	21.2		31.0	21.3	
Total Split (%)	15.5%	44.0%	44.0%	15.5%	35.5%	35.5%	15.5%	16.4%		24.0%	16.5%	
Maximum Green (s)	15.0	51.0	51.0	15.0	40.0	40.0	15.0	15.0		26.0	15.0	
Yellow Time (s)	3.0	4.3	4.3	3.0	4.3	4.3	3.0	4.3		3.0	4.3	
All-Red Time (s)	2.0	1.4	1.4	2.0	1.4	1.4	2.0	1.9		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	5.7	5.0	6.2		5.0	6.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.5	2.1	2.1	1.6	2.1	2.1	1.6	1.6		1.6	1.6	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Time To Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		15.0	15.0		13.0	13.0		23.0			25.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	7.0	27.4	27.4	9.4	31.7	31.7	6.2	8.6		11.5	17.4	
Actuated g/C Ratio	0.10	0.37	0.37	0.13	0.43	0.43	0.08	0.12		0.16	0.24	
v/c Ratio	0.28	0.70	0.07	0.41	0.72	0.41	0.17	0.50		0.48	0.11	
Control Delay	44.9	29.7	0.2	43.7	27.0	11.0	45.0	34.3		42.5	16.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	44.9	29.7	0.2	43.7	27.0	11.0	45.0	34.3		42.5	16.3	
LOS	D	C	A	D	C	B	D	C		D	B	
Approach Delay		28.5			23.4			36.2			35.8	
Approach LOS		C			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 128.9
Actuated Cycle Length: 73.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 27.1 — Intersection LOS: C
Intersection Capacity Utilization 55.4% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy



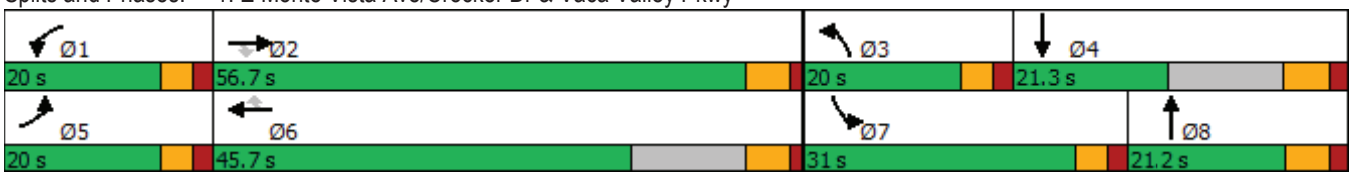
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	455	54	54	386	137	40	35	157	285	45	54
Future Volume (vph)	35	455	54	54	386	137	40	35	157	285	45	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		175	115		115	225		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			90			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.877			0.918	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1810	1538	1719	1810	1538	1719	1587	0	1719	1661	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1719	1810	1538	1719	1810	1538	1719	1587	0	1719	1661	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			155		142			42	
Link Speed (mph)		40			40			45			30	
Link Distance (ft)		760			901			405			584	
Travel Time (s)		13.0			15.4			6.1			13.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	40	523	62	62	444	157	46	40	180	328	52	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	523	62	62	444	157	46	220	0	328	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	10.7	10.7	9.0	10.7	10.7	9.0	10.2		9.0	10.3	
Total Split (s)	20.0	56.7	56.7	20.0	45.7	45.7	20.0	21.2		31.0	21.3	
Total Split (%)	15.5%	44.0%	44.0%	15.5%	35.5%	35.5%	15.5%	16.4%		24.0%	16.5%	
Maximum Green (s)	15.0	51.0	51.0	15.0	40.0	40.0	15.0	15.0		26.0	15.0	
Yellow Time (s)	3.0	4.3	4.3	3.0	4.3	4.3	3.0	4.3		3.0	4.3	
All-Red Time (s)	2.0	1.4	1.4	2.0	1.4	1.4	2.0	1.9		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	5.7	5.0	6.2		5.0	6.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.5	2.1	2.1	1.6	2.1	2.1	1.6	1.6		1.6	1.6	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Time To Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		15.0	15.0		13.0	13.0		23.0			25.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	6.6	32.7	32.7	7.9	36.2	36.2	7.0	9.5		24.1	32.0	
Actuated g/C Ratio	0.07	0.34	0.34	0.08	0.38	0.38	0.07	0.10		0.25	0.34	
v/c Ratio	0.33	0.84	0.10	0.43	0.64	0.23	0.36	0.77		0.75	0.19	
Control Delay	57.7	42.9	0.3	58.0	30.3	4.7	57.5	37.2		49.4	22.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	57.7	42.9	0.3	58.0	30.3	4.7	57.5	37.2		49.4	22.4	
LOS	E	D	A	E	C	A	E	D		D	C	
Approach Delay		39.6			26.8			40.7			42.4	
Approach LOS		D			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 128.9
Actuated Cycle Length: 94.8
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 36.1 — Intersection LOS: D
Intersection Capacity Utilization 72.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy



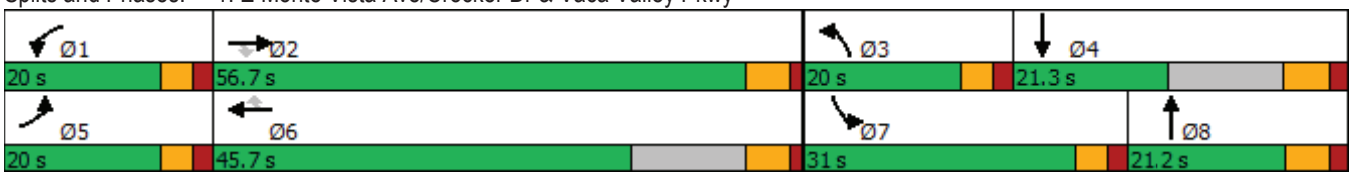
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	402	40	138	478	266	23	43	71	110	11	27
Future Volume (vph)	39	402	40	138	478	266	23	43	71	110	11	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		175	115		115	225		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			90			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.906			0.893	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1743	1482	1656	1743	1482	1656	1579	0	1656	1557	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	1743	1482	1656	1743	1482	1656	1579	0	1656	1557	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			155		53			30	
Link Speed (mph)		40			40			45			30	
Link Distance (ft)		760			901			405			584	
Travel Time (s)		13.0			15.4			6.1			13.3	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	44	452	45	155	537	299	26	48	80	124	12	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	452	45	155	537	299	26	128	0	124	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	10.7	10.7	9.0	10.7	10.7	9.0	10.2		9.0	10.3	
Total Split (s)	20.0	56.7	56.7	20.0	45.7	45.7	20.0	21.2		31.0	21.3	
Total Split (%)	15.5%	44.0%	44.0%	15.5%	35.5%	35.5%	15.5%	16.4%		24.0%	16.5%	
Maximum Green (s)	15.0	51.0	51.0	15.0	40.0	40.0	15.0	15.0		26.0	15.0	
Yellow Time (s)	3.0	4.3	4.3	3.0	4.3	4.3	3.0	4.3		3.0	4.3	
All-Red Time (s)	2.0	1.4	1.4	2.0	1.4	1.4	2.0	1.9		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	5.7	5.0	6.2		5.0	6.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.5	2.1	2.1	1.6	2.1	2.1	1.6	1.6		1.6	1.6	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Time To Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		15.0	15.0		13.0	13.0		23.0			25.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	6.5	26.6	26.6	12.6	37.7	37.7	5.8	8.6		10.9	20.7	
Actuated g/C Ratio	0.08	0.32	0.32	0.15	0.46	0.46	0.07	0.11		0.13	0.25	
v/c Ratio	0.33	0.80	0.08	0.61	0.67	0.39	0.22	0.60		0.56	0.10	
Control Delay	49.0	37.9	0.2	48.3	25.3	10.5	48.0	37.6		47.8	16.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	49.0	37.9	0.2	48.3	25.3	10.5	48.0	37.6		47.8	16.5	
LOS	D	D	A	D	C	B	D	D		D	B	
Approach Delay		35.7			24.4			39.3			39.9	
Approach LOS		D			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 128.9
Actuated Cycle Length: 81.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 30.3 Intersection LOS: C
Intersection Capacity Utilization 55.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy



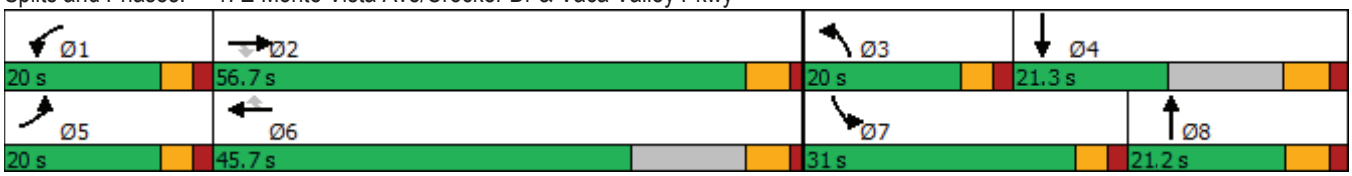
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	455	54	73	386	137	48	35	218	285	45	54
Future Volume (vph)	35	455	54	73	386	137	48	35	218	285	45	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		175	115		115	225		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			90			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.871			0.918	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1810	1538	1719	1810	1538	1719	1576	0	1719	1661	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1719	1810	1538	1719	1810	1538	1719	1576	0	1719	1661	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			155		198			42	
Link Speed (mph)		40			40			45			30	
Link Distance (ft)		760			901			405			584	
Travel Time (s)		13.0			15.4			6.1			13.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	40	523	62	84	444	157	55	40	251	328	52	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	523	62	84	444	157	55	291	0	328	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	10.7	10.7	9.0	10.7	10.7	9.0	10.2		9.0	10.3	
Total Split (s)	20.0	56.7	56.7	20.0	45.7	45.7	20.0	21.2		31.0	21.3	
Total Split (%)	15.5%	44.0%	44.0%	15.5%	35.5%	35.5%	15.5%	16.4%		24.0%	16.5%	
Maximum Green (s)	15.0	51.0	51.0	15.0	40.0	40.0	15.0	15.0		26.0	15.0	
Yellow Time (s)	3.0	4.3	4.3	3.0	4.3	4.3	3.0	4.3		3.0	4.3	
All-Red Time (s)	2.0	1.4	1.4	2.0	1.4	1.4	2.0	1.9		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	5.7	5.0	6.2		5.0	6.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.5	2.1	2.1	1.6	2.1	2.1	1.6	1.6		1.6	1.6	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Time To Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		15.0	15.0		13.0	13.0		23.0			25.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	6.6	34.4	34.4	9.4	39.0	39.0	7.6	10.9		24.5	30.8	
Actuated g/C Ratio	0.07	0.35	0.35	0.09	0.39	0.39	0.08	0.11		0.25	0.31	
v/c Ratio	0.35	0.84	0.10	0.52	0.62	0.22	0.42	0.84		0.77	0.21	
Control Delay	60.4	44.3	0.3	60.8	30.0	4.6	60.6	38.1		52.9	24.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	60.4	44.3	0.3	60.8	30.0	4.6	60.6	38.1		52.9	24.0	
LOS	E	D	A	E	C	A	E	D		D	C	
Approach Delay		41.0			28.0			41.7			45.4	
Approach LOS		D			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 128.9
Actuated Cycle Length: 99.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 37.8 Intersection LOS: D
Intersection Capacity Utilization 77.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy



1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy

AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	388	88	121	477	266	67	43	97	110	11	27
Future Volume (vph)	39	388	88	121	477	266	67	43	97	110	11	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		175	115		115	225		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			90			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.896			0.893	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1743	1482	1656	1743	1482	1656	1562	0	1656	1557	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	1743	1482	1656	1743	1482	1656	1562	0	1656	1557	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			155		72			30	
Link Speed (mph)		40			40			45			30	
Link Distance (ft)		760			901			405			584	
Travel Time (s)		13.0			15.4			6.1			13.3	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	44	436	99	136	536	299	75	48	109	124	12	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	436	99	136	536	299	75	157	0	124	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						

1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy

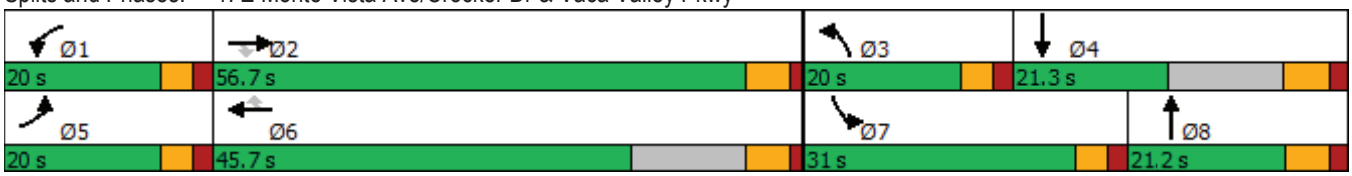
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	10.7	10.7	9.0	10.7	10.7	9.0	10.2		9.0	10.3	
Total Split (s)	20.0	56.7	56.7	20.0	45.7	45.7	20.0	21.2		31.0	21.3	
Total Split (%)	15.5%	44.0%	44.0%	15.5%	35.5%	35.5%	15.5%	16.4%		24.0%	16.5%	
Maximum Green (s)	15.0	51.0	51.0	15.0	40.0	40.0	15.0	15.0		26.0	15.0	
Yellow Time (s)	3.0	4.3	4.3	3.0	4.3	4.3	3.0	4.3		3.0	4.3	
All-Red Time (s)	2.0	1.4	1.4	2.0	1.4	1.4	2.0	1.9		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	5.7	5.0	6.2		5.0	6.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.5	2.1	2.1	1.6	2.1	2.1	1.6	1.6		1.6	1.6	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Time To Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		15.0	15.0		13.0	13.0		23.0			25.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	6.6	25.5	25.5	11.4	35.6	35.6	11.9	9.0		10.9	13.3	
Actuated g/C Ratio	0.08	0.32	0.32	0.14	0.44	0.44	0.15	0.11		0.14	0.17	
v/c Ratio	0.33	0.79	0.17	0.58	0.69	0.40	0.31	0.66		0.55	0.15	
Control Delay	47.9	37.1	1.5	47.6	26.7	10.9	41.4	36.3		46.7	19.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	47.9	37.1	1.5	47.6	26.7	10.9	41.4	36.3		46.7	19.0	
LOS	D	D	A	D	C	B	D	D		D	B	
Approach Delay		31.8			24.8			38.0			39.7	
Approach LOS		C			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 128.9
Actuated Cycle Length: 80.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 29.7 — Intersection LOS: C
Intersection Capacity Utilization 61.0% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy



1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy

PM Peak Hour

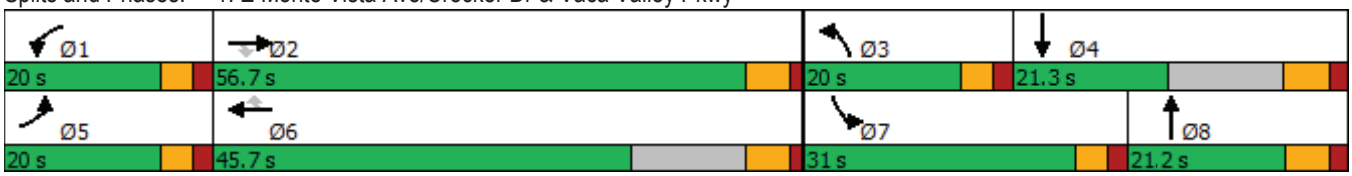
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	457	92	87	377	137	75	35	189	285	45	54
Future Volume (vph)	35	457	92	87	377	137	75	35	189	285	45	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		175	115		115	225		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			90			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.873			0.918	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1810	1538	1719	1810	1538	1719	1580	0	1719	1661	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1719	1810	1538	1719	1810	1538	1719	1580	0	1719	1661	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			155		171			42	
Link Speed (mph)		40			40			45			30	
Link Distance (ft)		760			901			405			584	
Travel Time (s)		13.0			15.4			6.1			13.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	40	525	106	100	433	157	86	40	217	328	52	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	525	106	100	433	157	86	257	0	328	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	10.7	10.7	9.0	10.7	10.7	9.0	10.2		9.0	10.3	
Total Split (s)	20.0	56.7	56.7	20.0	45.7	45.7	20.0	21.2		31.0	21.3	
Total Split (%)	15.5%	44.0%	44.0%	15.5%	35.5%	35.5%	15.5%	16.4%		24.0%	16.5%	
Maximum Green (s)	15.0	51.0	51.0	15.0	40.0	40.0	15.0	15.0		26.0	15.0	
Yellow Time (s)	3.0	4.3	4.3	3.0	4.3	4.3	3.0	4.3		3.0	4.3	
All-Red Time (s)	2.0	1.4	1.4	2.0	1.4	1.4	2.0	1.9		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	5.7	5.0	6.2		5.0	6.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.5	2.1	2.1	1.6	2.1	2.1	1.6	1.6		1.6	1.6	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Time To Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		15.0	15.0		13.0	13.0		23.0			25.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	6.7	34.7	34.7	10.1	39.9	39.9	9.5	10.4		24.6	28.8	
Actuated g/C Ratio	0.07	0.35	0.35	0.10	0.40	0.40	0.10	0.10		0.25	0.29	
v/c Ratio	0.35	0.83	0.17	0.57	0.60	0.22	0.53	0.81		0.78	0.22	
Control Delay	60.8	44.3	1.6	62.7	28.9	4.5	61.3	38.4		53.4	25.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	60.8	44.3	1.6	62.7	28.9	4.5	61.3	38.4		53.4	25.9	
LOS	E	D	A	E	C	A	E	D		D	C	
Approach Delay		38.5			28.2			44.2			46.3	
Approach LOS		D			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 128.9
Actuated Cycle Length: 99.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 37.7 Intersection LOS: D
Intersection Capacity Utilization 76.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy



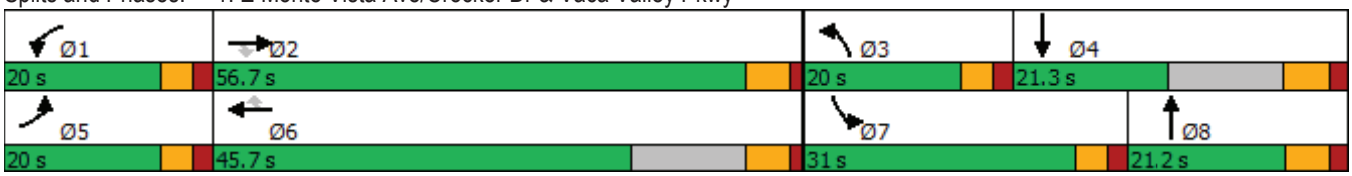
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	388	88	182	477	266	69	43	113	110	11	27
Future Volume (vph)	39	388	88	182	477	266	69	43	113	110	11	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		175	115		115	225		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			90			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.891			0.893	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1743	1482	1656	1743	1482	1656	1553	0	1656	1557	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	1743	1482	1656	1743	1482	1656	1553	0	1656	1557	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			155		84			30	
Link Speed (mph)		40			40			45			30	
Link Distance (ft)		760			901			405			584	
Travel Time (s)		13.0			15.4			6.1			13.3	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	44	436	99	204	536	299	78	48	127	124	12	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	436	99	204	536	299	78	175	0	124	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	10.7	10.7	9.0	10.7	10.7	9.0	10.2		9.0	10.3	
Total Split (s)	20.0	56.7	56.7	20.0	45.7	45.7	20.0	21.2		31.0	21.3	
Total Split (%)	15.5%	44.0%	44.0%	15.5%	35.5%	35.5%	15.5%	16.4%		24.0%	16.5%	
Maximum Green (s)	15.0	51.0	51.0	15.0	40.0	40.0	15.0	15.0		26.0	15.0	
Yellow Time (s)	3.0	4.3	4.3	3.0	4.3	4.3	3.0	4.3		3.0	4.3	
All-Red Time (s)	2.0	1.4	1.4	2.0	1.4	1.4	2.0	1.9		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	5.7	5.0	6.2		5.0	6.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.5	2.1	2.1	1.6	2.1	2.1	1.6	1.6		1.6	1.6	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Time To Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		15.0	15.0		13.0	13.0		23.0			25.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	6.5	26.1	26.1	15.6	40.0	40.0	12.0	9.5		10.9	13.4	
Actuated g/C Ratio	0.08	0.31	0.31	0.18	0.47	0.47	0.14	0.11		0.13	0.16	
v/c Ratio	0.35	0.81	0.18	0.67	0.65	0.38	0.33	0.71		0.58	0.16	
Control Delay	49.9	40.7	1.5	49.4	25.3	10.6	42.8	37.7		49.4	19.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	49.9	40.7	1.5	49.4	25.3	10.6	42.8	37.7		49.4	19.2	
LOS	D	D	A	D	C	B	D	D		D	B	
Approach Delay		34.7			25.8			39.3			41.8	
Approach LOS		C			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 128.9
Actuated Cycle Length: 84.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 31.3 Intersection LOS: C
Intersection Capacity Utilization 64.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	457	92	106	377	137	83	35	250	285	45	54
Future Volume (vph)	35	457	92	106	377	137	83	35	250	285	45	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		175	115		115	225		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			90			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.868			0.918	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1810	1538	1719	1810	1538	1719	1571	0	1719	1661	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1719	1810	1538	1719	1810	1538	1719	1571	0	1719	1661	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			210			210		208			61	
Link Speed (mph)		40			40			45			30	
Link Distance (ft)		760			901			405			584	
Travel Time (s)		13.0			15.4			6.1			13.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	40	525	106	122	433	157	95	40	287	328	52	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	525	106	122	433	157	95	327	0	328	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	10.7	10.7	9.0	10.7	10.7	9.0	10.2		9.0	10.3	
Total Split (s)	9.0	37.0	37.0	12.0	40.0	40.0	15.0	22.0		24.0	26.0	
Total Split (%)	9.5%	38.9%	38.9%	12.6%	42.1%	42.1%	15.8%	23.2%		25.3%	27.4%	
Maximum Green (s)	4.0	31.3	31.3	7.0	34.3	34.3	10.0	15.8		19.0	19.7	
Yellow Time (s)	3.0	4.3	4.3	3.0	4.3	4.3	3.0	4.3		3.0	4.3	
All-Red Time (s)	2.0	1.4	1.4	2.0	1.4	1.4	2.0	1.9		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	5.7	5.0	6.2		5.0	6.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.5	2.1	2.1	1.6	2.1	2.1	1.6	1.6		1.6	1.6	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Time To Reduce (s)	5.0	13.0	13.0	5.0	13.0	13.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		15.0	15.0		13.0	13.0		23.0			25.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	4.1	27.9	27.9	7.1	35.1	35.1	8.1	11.1		18.6	24.0	
Actuated g/C Ratio	0.05	0.32	0.32	0.08	0.40	0.40	0.09	0.13		0.21	0.28	
v/c Ratio	0.50	0.90	0.17	0.87	0.59	0.21	0.60	0.86		0.89	0.23	
Control Delay	66.4	49.8	0.6	93.1	26.5	1.8	55.8	36.4		63.3	15.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	66.4	49.8	0.6	93.1	26.5	1.8	55.8	36.4		63.3	15.7	
LOS	E	D	A	F	C	A	E	D		E	B	
Approach Delay		43.0			32.5			40.8			51.0	
Approach LOS		D			C			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 86.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 40.8 — Intersection LOS: D
Intersection Capacity Utilization 81.2% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: E Monte Vista Ave/Crocker Dr & Vaca Valley Pkwy