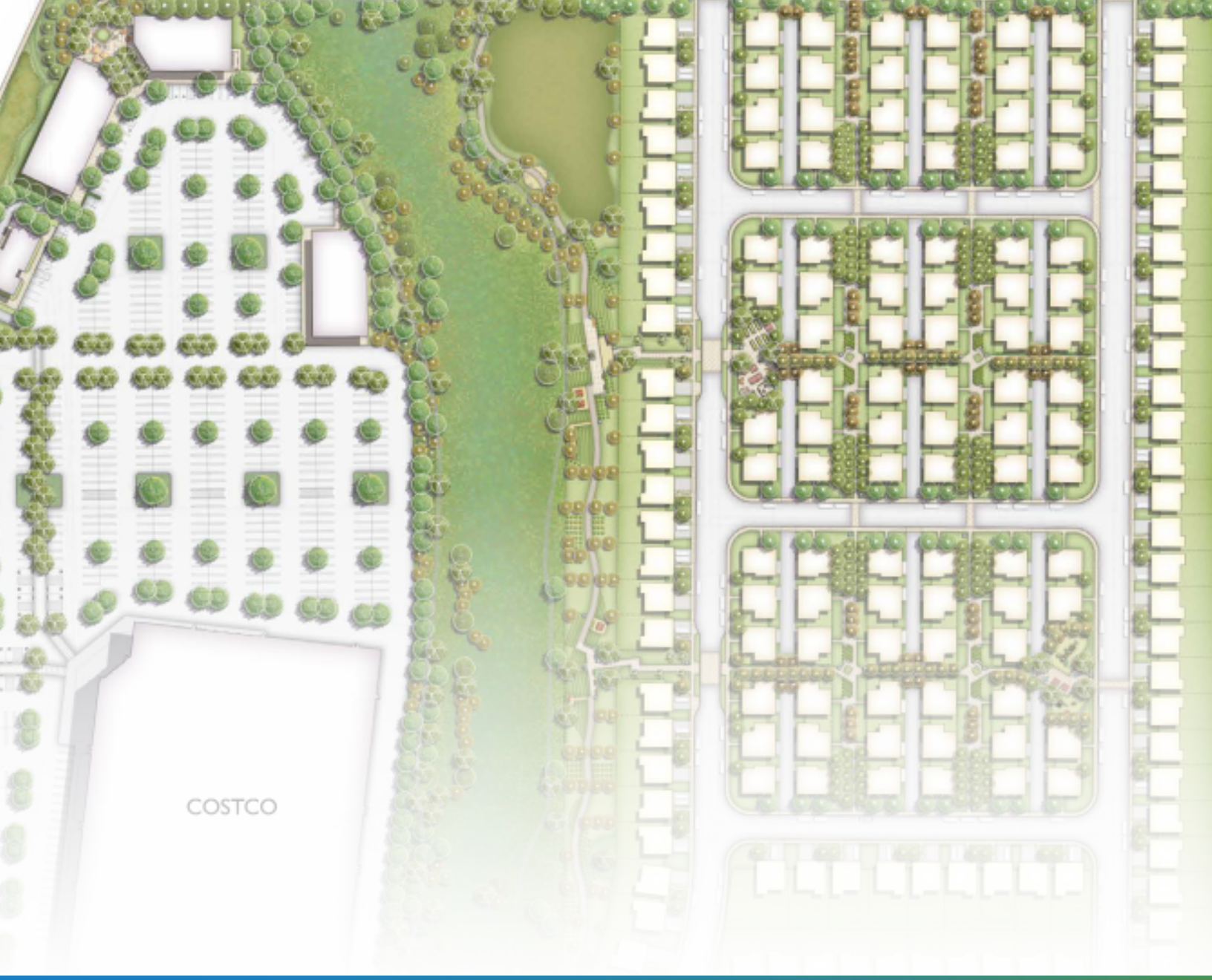


Fairview at Northgate Project

Draft EIR Technical Appendices (1 of 2)

Project Number: TM #17-0002, PD #17-0007, ZMA #17-0001, UP #18-0007
State Clearinghouse No. 2018102007

January 2020

City of VALLEJO California

Kimley»Horn

FAIRVIEW AT NORTHGATE PROJECT

Draft Environmental Impact Report

Technical Appendices

(A through G)

PROJECT NUMBERS: PD 17-0007, TM #17-0002, ZMA #17-0001, UP #18-0007

STATE CLEARINGHOUSE NO. 2018102007

City of Vallejo

Planning Division

555 Santa Clara Street

Vallejo, California 94590

Contact: Aaron Sage

JANUARY 2020

PREPARED BY:

Kimley»Horn

TECHNICAL APPENDICES

Appendix A: Notice of Preparation and Comments Received

Appendix B: Economic Impact Analysis; and

Fiscal Impact Analysis

Appendix C: Air Quality and Greenhouse Gas Study Modeling Data; and

Climate Action Plan Checklist

Appendix D: Biological Resources Assessment; and

Delineation of Water of the U.S. Report

Appendix E: Cultural Resources Report

Appendix F: Preliminary Geotechnical Report

Appendix G: Phase I Environmental Site Assessment

Appendix H: Stormwater Control Plan for Commercial Component; and

Stormwater Control Plan for Residential Component

Appendix I: Noise Measurement Field Sheets and Traffic Noise Calculations

Appendix J: Transportation Impact Analysis

Appendix K: Potable Water Demand Projections; and

Cooke Sewer Capacity Evaluation; and

Sanitary Sewer Capacity Calculations

Appendix A

Notice of Preparation and Comments Received

Planning Division · 555 Santa Clara Street · Vallejo · CA · 94590 · 707.648.4326

NOTICE OF PREPARATION

Date: October 2, 2018

To: Responsible Agencies, Organizations, and Interested Parties

From: City of Vallejo

Contact: Alea Gage
Economic Development Project Manager
City of Vallejo, Economic Development Division
555 Santa Clara Street, Vallejo, CA 94590

Subject: **Fairview at Northgate (Cooke Property) Environmental Impact Report**

In discharging its duties under Section 15020 of the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000 et seq.), the City of Vallejo (City), as lead agency, intends to prepare an Environmental Impact Report (EIR), consistent with the California Environmental Quality Act (CEQA)(Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines, that address the potential physical environmental effects of the Fairview at Northgate Project (proposed project). In accordance with State CEQA Guidelines Section 15082, the City has prepared this Notice of Preparation (NOP) to provide responsible agencies, trustee agencies, involved federal agencies, special districts, Solano County, adjacent cities, neighboring landowners, agencies with jurisdiction by law, public and private utility providers and other interested parties with sufficient information describing the proposed project and its potential environmental effects in order to provide a meaningful response.

As specified by the State CEQA Guidelines, the NOP will be circulated for a 30-day review period. The City requests and welcomes public input and input from other stakeholders and public agencies during this review. If no response or request for additional time is received from any responsible agency by the end of the review period, the lead agency may presume that responsible agencies have no response.

Documents or files relating to the proposed project are available at, and written and/or email comments in response to this NOP should be directed to, the City at the address below. Comments should be provided to the City at the earliest possible date, but no later than 30 calendar days after receipt of this NOP. This NOP, which includes a public notice regarding the Scoping Session, was sent to state agencies and filed with the State Office of Planning and Research on October 2, 2018, posted with the Solano County Clerk's Office and published in the Vallejo Times-Herald on October 2, 2018, and mailed or email to interested parties on or before October 2, 2018 . Please include "Fairview at Northgate EIR NOP Scoping Comments" in the subject line and send or email all comments to:

Alea Gage
Economic Development Project Manager
City of Vallejo | Economic Development Division
555 Santa Clara Street, Vallejo, CA 94590
(707) 649-5454
alea.gage@cityofvallejo.net

The 30 day comment period for this Notice of Preparation closes at 5:00 p.m. on **November 1, 2018.**

Agencies that will need to consider the EIR when deciding whether to issue permits or other approvals for the Fairview at Northgate Project should provide the name of a contact person. Comments provided by email should include "Fairview at Northgate EIR NOP Scoping Comment" in the subject line, and the name and mailing address of the commenter in the body of comment.

Public Scoping Meeting: The City will conduct a scoping meeting during the 30-day public review period of this NOP. The scoping meetings will be held as follows:

October 10 , 2018
6:30 p.m.
John F. Kennedy Library
The Vallejo Room, Basement Level
505 Santa Clara Street,
Vallejo, CA 94590

PROPOSED PROJECT SITE AND ENVIRONMENTAL SETTING

The proposed project site is a vacant, undeveloped parcel (Assessor Parcel Number 0081-490-010) located within the City of Vallejo in Solano County and generally bound by the eastern right-of-way of Admiral Callaghan Lane, the southern right of way of Turner Parkway and to the north of Rotary Way. The proposed project site would be accessed via Admiral Callaghan Lane adjacent to the northwest and Turner Parkway to the north. The I-80 freeway is located immediately adjacent to the west of Admiral Callaghan Lane. Figure *1: Regional Map*, shows the proposed project site in a regional context. Figure 2: *Vicinity Map*, presents the proposed project site and vicinity in a localized context.

Proposed Project Site Environmental Setting

The proposed project site encompasses approximately 51.3 acres and is currently undeveloped, vacant land. The proposed project site is located southeast of the intersection of Turner Parkway and Admiral Callaghan Lane. The proposed project site is square shaped on the north, east, and southern boundaries, with the western side being angled to the southwest tracing the alignment of the undeveloped City right-of-way adjacent to Admiral Callaghan Lane. The proposed project site is undeveloped land surrounded by areas developed with predominantly commercial and residential uses.

Regional Environmental Setting

Covering an area of approximately 50 square miles, Vallejo is bordered by the City of American Canyon and unincorporated Napa County to the north, the City of Benicia and unincorporated Solano County to the east,

the Carquinez Strait to the south, and the Napa River and San Pablo Bay to the west. Adjacent to the City and to the west is the San Pablo Bay National Wildlife Refuge, and the Solano County Land Trust's Lynch Canyon Open Space is located approximately one mile north of the City. Vallejo lays along the east margin of San Pablo Bay, a northeastern lobe of San Francisco Bay. The topography in Vallejo and its Sphere of Influence (SOI) is varied, ranging from flat-lying areas such as marsh and estuarine. The environment along Mare Island and parts of the east margin of the Napa River includes gently sloping terrain in the central part of the City (especially the area flanking Interstate Highway 80 (I-80) north of Curtola Parkway), hillier terrain that dominates the east-central and northeast parts of the City and include the East Bay Hills and Briones Hills to the southwest, the Vaca Mountains and Napa Valley to the north, and the Diablo Ranges to the southeast. Elevations range from near-sea level on the shores of the Carquinez Strait to nearly 1,000 feet above mean sea level along the crest of Sulphur Springs Mountain in the northeast part of the City.

Regional vehicular access to the City of Vallejo is provided by I-80, Interstate 780 (I-780), State Route (SR)-29, and SR-37. Regional transit access to the City of Vallejo is comprised of passenger ferry service provided by San Francisco Bay Ferry to and from San Francisco; Soltrans bus service to the Bay Area Rapid Transit (BART) District's El Cerrito del Norte and Walnut Creek stations; and Napa County Transportation and Planning Agency's VINE bus service to Napa and the El Cerrito del Norte BART station. Napa County Airport is located approximately six miles to the north.

PROPOSED PROJECT DESCRIPTION

The proposed project is planned to include a mixture of commercial, residential, recreation, and designated open space. The commercial element would be located in the westerly portion of the proposed project site bounded by Admiral Callaghan Lane to the west, Turner Parkway to the north, Avery Green Honda car dealership and a portion of the Quail Ridge Condominiums to the south, and the aforementioned designated open space to the east as a buffer to the planned residential area. The residential element would be located on the easterly portion of the proposed project site bounded by Turner Parkway to the north, the existing Hunter Ranch residential development to the east, the Quail Ridge condominiums to the south and the designated open space to the west as a buffer to the planned commercial area. The proposed project incorporates numerous sidewalks, paseos, and a trail designed to promote a pedestrian and bicycle friendly environment, to encourage alternative transportation between the commercial and residential project elements, and improve access to the proposed open space. All components of the proposed project have been designed and planned with the intent of being responsive to the existing on-site features, topography, and other resources and constraints found on the proposed project site and within the surrounding areas, and to be compliant with pertinent planning documents, regulations, and guidelines. Each component of the proposed project is described in additional detail further below. Please refer to *Table 1: Fairview at Northgate Land Use Table*, below, for a breakdown of the areas of the proposed project uses and refer to *Figure 3: Site Plan*, for a depiction of the proposed project layout and location of proposed project uses. Among other permits, the proposed project would require City approval of a Planned Development Master Plan, and the architectural styles as well as floor plans and elevations of the planned commercial and residential buildings would be reviewed and approved by the City as part of the Unit Plan submittal process.

Table 1 – Fairview at Northgate Land Use Table

Proposed Land Use	Acres	Square Feet (sf)	Number of Units
Commercial	**21.8**	--	--
Costco	--	152,138	--
Pad for Building #1	--	3,000	--
Pad for Building #2	--	9,400	--
Pad for Building #3	--	7,140	--
Pad for Building #4	--	7,960	--
Gasoline Station Kiosk	--	50	--
Total		**179,688**	--
Residential	**23.8**	--	**178**
Single Family	8.1	--	86
Single Family (with Alleys)	7.1	--	92
Basins/Greenspace	5.5	--	--
Public Roads	3.1	--	--
Open Space	**5.7**	--	--
Central Corridor (Preservation Area)	5.7	--	--
Total	**51.3**	**179,688**	**178**

Commercial

The westerly portion of the proposed project site is planned to be used for commercial development. The proposed project uses would accommodate approximately 179,688 square feet (sf) of commercial building area within 21.8 acres. The commercial area is proposed to contain 5 separate buildings plus the gasoline service station accommodating up to 30 fueling dispensers and a related 50 sf kiosk. The Commercial center would feature a total 962 parking spaces including the required number of accessible spaces for disabled persons.

The southern portion of the commercial area is proposed to be built with a Costco store, which would be the largest building occupying 152,138 square feet over a 17.2-acre area. Parking in this area would be accommodated by providing a total of 774 parking stalls, of which 16 would be reserved for disabled accessible parking. The proposed gas station would be located in the southerly portion of the parking lot and the Costco would be setback from the roadway approximately 450 feet, separated from Admiral Callaghan Lane by the parking lot.

The northerly end of the commercial area is proposed to be developed into four buildings ranging in size from 3,000 sf to 9,400 sf on a site approximately 3.6 acres in size. Parking would be accommodated for this portion of the commercial area with a total of 188 parking stalls, of which 8 would be reserved for disabled accessible parking. These commercial uses would be located along the frontage with Turner Parkway and

wrap around the southeast corner of Admiral Callaghan Lane and Turner Parkway and then along roughly 1/3 of the western edge of the commercial area fronting Admiral Callaghan Lane. A drive-thru-restaurant is proposed in one of the four buildings in the northerly end of the commercial area and potential uses for the other three buildings include general neighborhood services such as restaurants, health and fitness clubs, medical clinics, pharmacies, salons, laundry, clothing, convenience stores, and other related services.

Residential

The residential component would be located on the easterly portion of the proposed project site and encompass a total 23.8 acres. The residential component would consist of 187 single family detached units comprised of two building types; those with traditional front-loaded garages and those with a private front courtyard and alley loaded garages. The 92 alley-loaded units, generally located within the interior of the proposed project site, would have courtyards and garage access via north-south oriented alleys. The alleys would be accessed via east-west trending 42-foot-wide interior streets. Between the interior residences landscaped paseos would provide access to the front of the homes. Of the remaining 86 units, 67 would be located around the perimeter of the residential area and one block of 19 homes would be in the southern residential zone. These areas would be developed as traditional single family detached units on lots with a 42-foot minimum width and a minimum depth of 85 feet. The traditional residential units would feature a front driveway and front entry way facing the streets and be generally oriented to the interior of the residential area. The average density for the combined residential uses would be 7.9 units per gross acre.

Open Space

The proposed project has been designed to reduce the development footprint within the central portion of the proposed project site which would be preserved as open space. This area drains the existing residential developments to the south and southeast and contains an area designated as wetland. This open space would separate the proposed project's commercial and residential components, and provide a buffer between the two uses. This area would be subject to protective restrictions that would not allow for public or private use and the open space would be secured by attractively designed perimeter fencing consistent with the appearance of open space. The open space would be accessible via private gates located on the commercial side of the proposed project in order to undertake maintenance activities. The proposed project anticipates that the open space would be owned and managed by a home owners association (HOA) created in connection with the residential component.

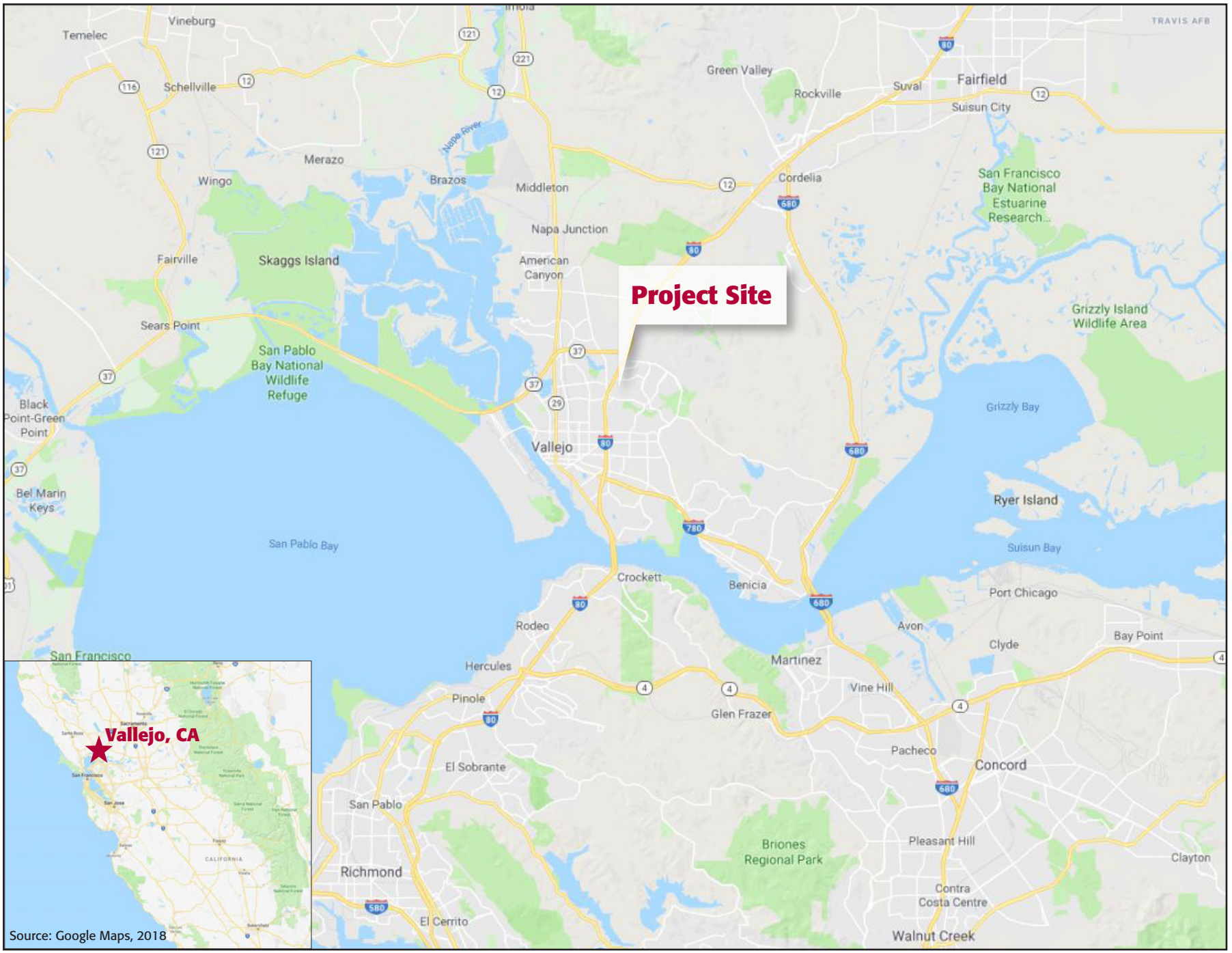
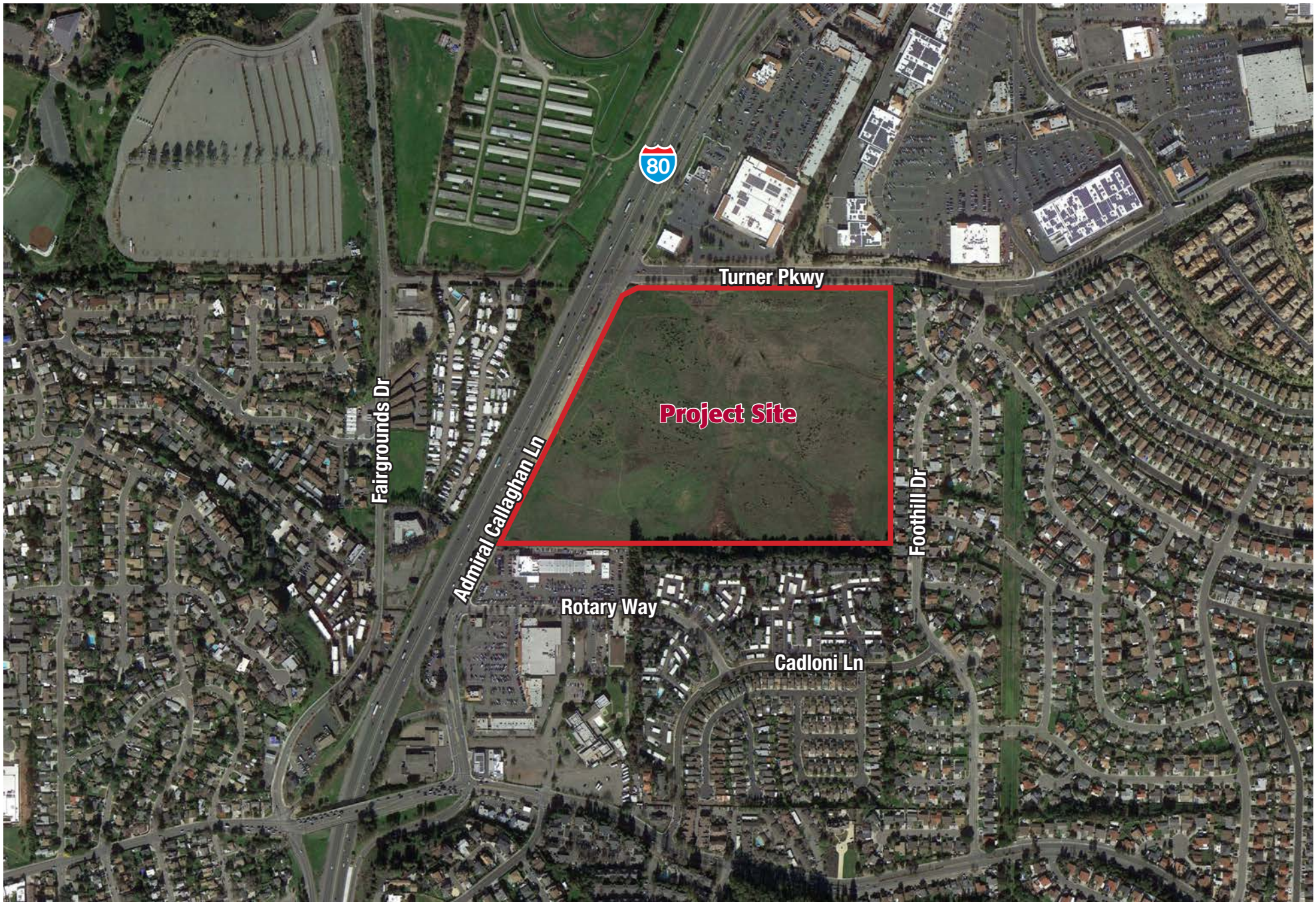


FIGURE 1: Regional Map
Fairview at Northgate Project

Not to scale

Kimley»Horn

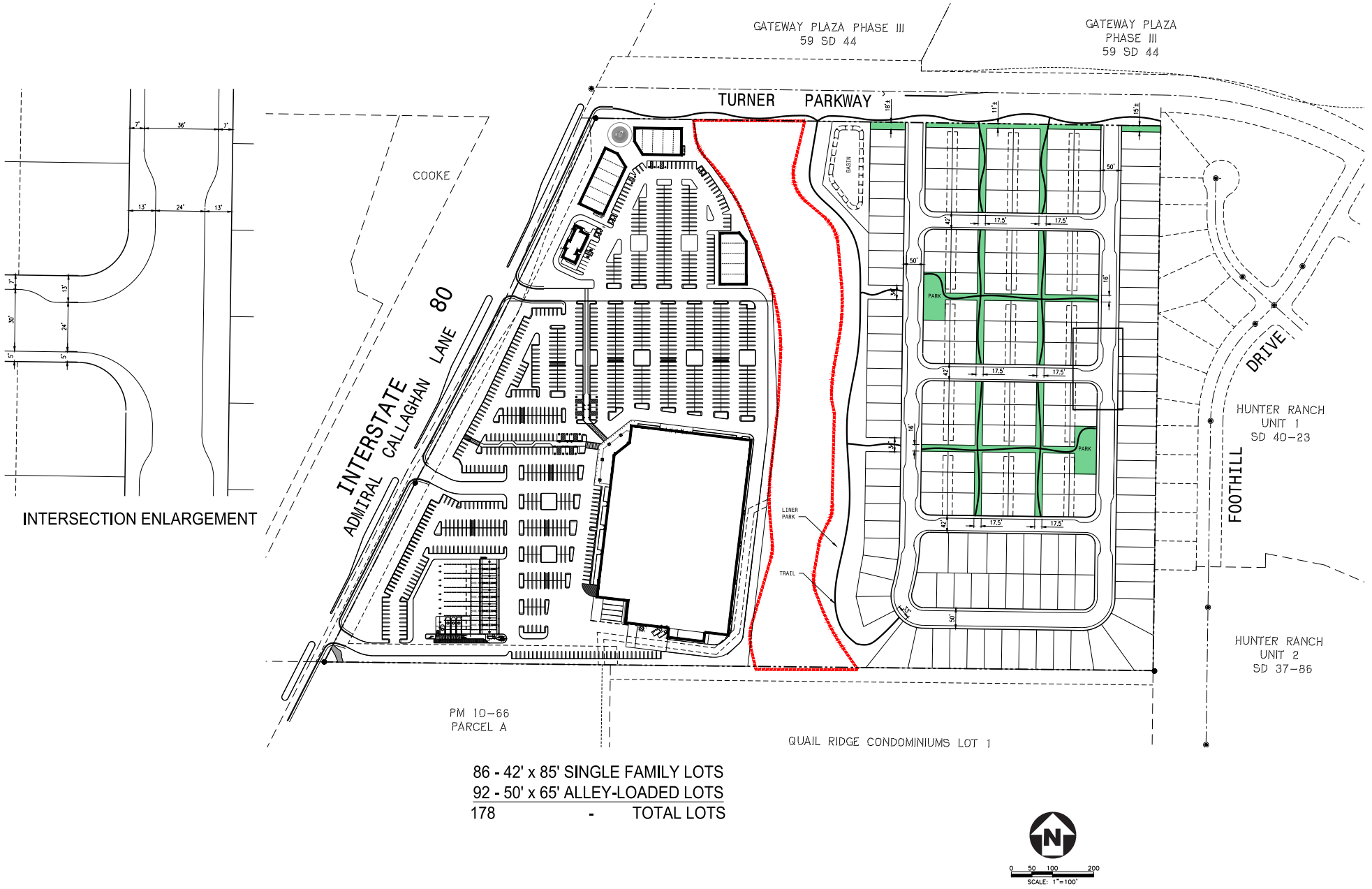


Source: Google Earth, 2018

FIGURE 2: Vicinity Map
Fairview at Northgate Project

Not to scale

Kimley»Horn



Source: MacKay and Somps, 2018

FIGURE 3: Site Plan
Fairview at Northgate Project

Kimley»Horn

Parks

The proposed project would provide parks and privately maintained greenspace to fulfill the parkland dedication requirements. The park dedication requirement is calculated to be 2.44 acres. In the event an insufficient amount of parkland is dedicated per the requirements of the Quimby Act, the proposed project would be required to pay an in-lieu fee as mitigation for the amount of parkland acreage not provided. The proposed project would include two 0.28-acre parks which would be for the use of project residents. A 2.0 acre linear park/trail would be located between the residential area and open space. The linear park/trail would connect to a meandering sidewalk along Turner Parkway on the north and extend to the south with connections to the residential area via three pass-thru walkways between home sites bordering the park/trail. Within the interior of the residential area, there would be series of pedestrian paseos connecting to the parks and liner park/trail and new meandering sidewalk on Turner Parkway. The proposed project was designed to include these walkways in order to encourage pedestrian activity within the residential community as well as from the residential community to the service oriented uses at the north end of the commercial area.

REQUIRED APPROVALS

The City of Vallejo is considered the Lead Agency under CEQA, and is responsible for reviewing and certifying the adequacy of the EIR to be prepared for the proposed project. Prior to development of the proposed project, a number of discretionary permits and approvals must be obtained from local, state and federal agencies, as listed below. It is expected that these agencies, at a minimum, would consider the data and analyses contained in this EIR when making their permit determinations. To implement the proposed project, the Project Applicant would need to obtain, at a minimum, the following discretionary permits/approvals.

City of Vallejo

- Certification by the City of Vallejo that the Final EIR has been completed in compliance with CEQA, and has been reviewed and considered by the decision makers.
- Adoption by the City of Vallejo of findings regarding significant impacts and appropriate mitigation.
- Adoption by the City of Vallejo of a statement of overriding considerations for significant and unavoidable impacts, if applicable.
- Adoption by the City of Vallejo of a mitigation monitoring and reporting program (MMRP).
- Approval by the City of Vallejo of Major Conditional Use Permit.
- Approval by the City of Vallejo of a zoning map amendment, if necessary.
- Approval by the City of Vallejo of a tentative subdivision map or vesting tentative map and subsequent final maps.
- Approval by the City of Vallejo of a Planned Development Master Plan.
- Approval by the City of Vallejo of Unit Plan(s) as needed.

- Issuance of encroachment permits by the City of Vallejo for road work or other improvements that may be constructed in local road rights-of way.

- Issuance of a grading permit by the City of Vallejo.

Future required approvals and possible permitting requirements from other public agencies may be required. Upon completion of the environmental review process and prior to construction, the proposed project would be reviewed through standard City plan check procedures to verify that the proposed project conforms to all applicable City design criteria.

State of California

- California Department of Fish and Wildlife (CDFW), Agreements/Permits/Authorizations pursuant to the California and Federal Endangered Species Acts, if necessary.
- California Air Resources Board – Yolo-Solano Air Quality Management District) – Fugitive Dust Control Plan, Authority to Construct, Permit to Operate, any other permits as necessary.
- San Francisco Regional Water Quality Control Board (San Francisco RWQCB):
    - General Construction Stormwater Permit [Preparation of a Storm Water Pollution Prevention Plan (SWPPP).
    - Section 401 Water Quality Certification, Regional Water Quality Control Board.
- Issuance of encroachment permits by the California Department of Transportation (Caltrans) – District 02 for road work or other improvements that may be required to be constructed within State-controlled right-of way (I-80).

Federal Approvals

- United States Army Corps of Engineers (USACE) 404 permit for wetland impacts.

POTENTIAL ENVIRONMENTAL EFFECTS

The EIR will describe the existing environmental conditions on the proposed project site and will identify the significant environmental effects anticipated to result from development of the proposed project as proposed. Mitigation measures will be identified for potentially significant environmental impacts, as warranted. The analysis in the EIR will include the following specific categories of environmental impacts and concerns related to the proposed project. Additional subjects may be added at a later date, if new information becomes available.

Aesthetics & Visual Resources

The proposed project site is surrounded primarily by mixed-use commercial/retail/office uses and residential neighborhoods including two-story and multi-family residential structures. The EIR will describe the existing visual setting of the proposed project site, the visual changes that are anticipated to occur as a result of the proposed project and whether the changes resulting from the proposed project would adversely affect the existing visual character or quality of its setting, including any changes related to substantial nighttime lighting and glare, or visual corridors as seen from important surrounding vantage

points. If significant impacts related to visual resources and aesthetics are found, mitigation measures will be identified.

Air Quality

The EIR will address the regional air quality conditions in the Bay Area and discuss the proposed project's short term and long term impacts to local and regional air quality based on methodologies established by the Bay Area Air Quality Management District (BAAQMD). The EIR will discuss sensitive receptors and temporary construction impacts to air quality. Mitigation measures, if found to be required, will be discussed.

Biological Resources

The project site is an undeveloped, vacant parcel within an urbanized area of Vallejo. The EIR will discuss potential short term and long term impacts of the proposed project on existing plant and wildlife species and associated habitat, including any tree loss, wetland impacts, and the City's policies and regulations pertaining to biological resources. Mitigation measures, if found to be required, will be discussed.

Cultural and Historic Resources, including Tribal Cultural Resources

A cultural resources evaluation will be prepared for the proposed project in consultation with Native American representatives identified by the California Native American Heritage Commission. The EIR will assess and address the potential for ground disturbing activities associated with the proposed project to damage or destroy archaeological, paleontological, historic, or tribal cultural resources on the proposed project site. If significant archaeological, paleontological, historic, or tribal cultural resources are found to be present on the proposed project site, mitigation measures will be identified.

Geology and Soils

The proposed project site is located in a seismically active region in the United States. The EIR will discuss the possible impacts associated with existing geology and soils, including the risk of geologic hazards associated with seismic events on the proposed project. Mitigation measures, if found to be required, will be discussed.

Greenhouse Gas Emissions and Energy

The EIR will describe the potential for short term and long term contributions to global greenhouse gas (GHG) emissions from the proposed project, as well as impacts related to energy use during construction and operation of the proposed project. The EIR will address the increase in energy usage on-site and proposed design measures to reduce energy consumption. The EIR will also assess the proposed project's alignment with local and regional plans and policies pertaining to GHG emissions and climate change. Mitigation measures, if found to be required, will be discussed.

Hazards and Hazardous Materials

The proposed project site is surrounded by commercial businesses and residential land uses. The EIR will summarize known hazardous materials conditions on and adjacent to the project site, address the potential for hazardous materials from the proposed project, and evaluate the potential for increased risks associated

with potential uses or accidental release of hazardous materials within or near the proposed project site. Mitigation measures, if found to be required, will be discussed.

Hydrology and Water Quality

Based on Flood Insurance Rate Maps the proposed project site is located in Zone X- an area of minimal flooding. The EIR will address the possible flooding issues of the site as well as the effectiveness of the storm drainage system and the project's effect on storm water quality consistent with the requirements of the Regional Water Quality Control Board. The EIR will include the percentage of pervious and impervious surfaces on-site (under existing and project conditions), and a list of proposed stormwater control measures that meet the City's water quality requirements. The EIR will also evaluate potential effects to groundwater conditions and sources, in addition to the potential for inundation and sea level rise and adaptation. Mitigation measures, if found to be required, will be discussed.

Land Use

The proposed project site is located in a developed urbanized area surrounded by commercial and residential land uses. The EIR will describe the existing land uses adjacent to and within the proposed project area. This discussion will evaluate the proposed project's compatibility with existing and proposed land uses in the project area. The EIR will evaluate the proposed project's consistency with existing land use regulations including the City's General Plan 2040, zoning and municipal code. Potential land use impacts as a result of the proposed project will be analyzed and mitigation measures will be identified for significant impacts, if necessary.

Noise and Vibration

The proposed project site is located adjacent to Interstate 80, Admiral Callaghan Lane and Turner Parkway; Interstate 80 and Admiral Callaghan Lane are major roadways with high traffic volumes. The EIR will discuss impacts to the proposed project from existing off-site noise sources. The EIR will also discuss the increase in traffic noise that will result from implementation of the proposed project, and short-term construction noise. Noise levels will be evaluated for consistency with applicable standards and guidelines from the City of Vallejo. If noise and vibration impacts are found to be significant, mitigation measures will be identified.

Population and Housing

The EIR will examine the anticipated effects of the proposed project on existing and projected population and housing characteristics, housing demands, and the local balance between housing and jobs in the City. The EIR will evaluate the applicable regional and City plans, policies and regulations to the proposed project. Mitigation measures, if found to be required, will be discussed.

Public Services

The EIR will assess whether implementation of the proposed project will increase the demand on public services, including police, fire protection, emergency services, schools, and parks. The EIR will assess potential increases in demand for public services and the availability and capacity of public facilities to maintain acceptable levels of services. Mitigation measures, if found to be required, will be discussed.

Recreation

The EIR will assess whether implementation of the proposed project will increase the demand on existing parks, trails, and recreation centers. The EIR will assess potential increases in demand on existing parks, trails, and recreation centers and the availability and capacity of these facilities to maintain acceptable levels of services, while taking onto consideration parks, open space areas, and a multi-use trail proposed as part of the residential component of the proposed project. The EIR will examine City policies related to park dedication and maintenance, to ensure the proposed project is consistent with City of Vallejo policies.

Transportation, Circulation and Parking

The EIR will examine the existing traffic and parking conditions in the immediate vicinity of the proposed project site. A traffic impact analysis will be prepared for the proposed project in order to identify the transportation impacts of the proposed project on the existing local and regional transportation system and the planned long-range transportation network. The evaluation will include regional and local roadway system impacts, transit impacts, pedestrian and bicycle impacts and TDM opportunities. Further, the EIR will evaluate impacts to parking in the vicinity. If impacts to transportation or parking facilities are found to be significant, mitigation measures will be identified.

Utilities and Service Systems

The EIR will assess whether implementation of the proposed project will result in an increased demand on utilities compared to existing conditions. The EIR will examine the impacts of the proposed project on gas, electric and telecommunication facilities as well as wastewater systems, storm drains, water supply, and solid waste management. The EIR will analyze applicable state, regional, and City plans and policies for consistency. Mitigation measures, if found to be required, will be discussed.

Significant Unavoidable Impacts

The EIR will identify those significant impacts that cannot be avoided, if applicable, if the project is implemented as proposed.

Cumulative Impacts

The EIR will include a cumulative impacts analysis that will address the potentially significant cumulative impacts of the proposed project when considered with other past, present, and reasonably foreseeable future projects in the development area.

In conformance with the CEQA Guidelines, the EIR will also include the following sections: 1) consistency with local and regional plans and policies, 2) growth inducing impacts, 3) significant irreversible environmental changes, 4) areas of known controversy, 5) references, 6) organizations/ persons consulted, 6) EIR author and consultants, and 7) appendices.

ALTERNATIVES

In accordance with Section 15126.6 of the State CEQA Guidelines, an EIR must “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of

the project and evaluate the comparative merits of the alternatives." As required by CEQA, the EIR will evaluate a No Project Alternative, as well as other potential alternatives that may be capable of reducing or avoiding potential environmental effects. Aside from the No Project Alternative, the City has not yet determined what additional alternatives to the proposed project will be evaluated in the EIR. Once selected, the alternatives will be analyzed at a qualitative level of detail in the Draft EIR for comparison against the impacts identified for the proposed project, consistent with the requirements of CEQA.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

RECEIVED
OCT 05 2018
CITY OF VALLEJO
ECONOMIC DEV DIVISION

October 2, 2018

To: Reviewing Agencies

Re: Fairview at Northgate EIR
SCH# 2018102007

Attached for your review and comment is the Notice of Preparation (NOP) for the Fairview at Northgate EIR draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Alea Gage
City of Vallejo
555 Santa Clara Street
Vallejo, CA 94590

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
1-916-322-2318 FAX 1-916-558-3184 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2018102007
Project Title Fairview at Northgate EIR
Lead Agency Vallejo, City of

Type NOP Notice of Preparation

Description The proposed project is planned to include a mixture of commercial, residential, recreation, and designated open space on a 51.3 acre site. The commercial component of the project would be located in the westerly portion (21.8 acres) of the project area and consist of 179,688 sf of retail space including one Costco store with a gas station. This area would be buffered from the residential area by a centrally located open space (5.7 acre). The residential area would be located on the easterly portion of the site and consist of 187 single family units on 23.8 acres. The proposed project incorporates sidewalks, paseos, and a trail, to facilitate alternative transportation between the commercial and residential project elements, and improve access to the proposed open space.

Lead Agency Contact

Name Alea Gage
Agency City of Vallejo
Phone (707) 649-5454 **Fax**
email
Address 555 Santa Clara Street
City Vallejo **State** CA **Zip** 94590

Project Location

County Solano
City Vallejo
Region
Cross Streets Turner Pkwy and Admiral Callaghan Lane
Lat / Long 38° 07' 42" N / 122° 13' 24" W
Parcel No. 0052-320-250
Township 3N **Range** 3W **Section** 5 **Base** MDBM

Proximity to:

Highways I-80, SR 37, SR 29
Airports
Railways CA Northern RR
Waterways Blue Rock Springs Creek and Lake Chabot
Schools Bethel, Wardlaw, Vallejo
Land Use retail/entertainment; approx 22 acres, and mix of housing types/medium density ers; approx 29 acres

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Fiscal Impacts; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 3; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Caltrans, District 4; Air Resources Board; State Water Resources Control Board, Division of Water Quality; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 2

Date Received 10/02/2018 **Start of Review** 10/02/2018 **End of Review** 10/31/2018

Note: Blanks in data fields result from insufficient information provided by lead agency.

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# 2018102007

Project Title: Fairview at Northgate EIR

Lead Agency: City of Vallejo — Contact Person: Alea Gage

Mailing Address: 555 Santa Clara Street — Phone: (707) 649-5454

City: Vallejo — Zip: 94590 — County: Solano

Project Location: County: Solano — City/Nearest Community: Vallejo

Cross Streets: Turner Parkway and Admiral Callaghan Lane — Zip Code: 94591

Longitude/Latitude (degrees, minutes and seconds): 38 ° 07 ' 42 " N / 122 ° 13 ' 24 " W Total Acres: 51.3

Assessor's Parcel No.: 0052-320-250 — Section: 5 — Twp.: 3N — Range: 3W — Base: Mt Diablo

Within 2 Miles: State Hwy #: I-80, SR 37, SR 29 — Waterways: Blue Rock Springs Creek and Lake Chabot

Airports: N/A — Railways: CA Northern Railroad — Schools: Bethel,Wardlaw,Vallejo

Document Type:

CEQA: ☒ NOP ☐ Draft EIR — NEPA: ☐ NOI — Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ☐ Draft EIS ☐ Other:
☐ Mit Neg Dec Other: ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☒ Planned Unit Development ☒ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☒ Land Division (Subdivision, etc.) ☐ Other:

Governor's Office of Planning & Research

OCT 02 2018

STATE CLEARINGHOUSE

Development Type:

☒ Residential: Units 187 Acres 22.5
☐ Office: Sq.ft. Acres Employees
☒ Commercial: Sq.ft. 179,688 Acres 21.7 Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD

☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☒ Other: Open Space - 7.1 acres

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☒ Fiscal ☒ Recreation/Parks ☒ Vegetation
☐ Agricultural Land ☐ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☒ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Land Use
☐ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Cumulative Effects
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other:

Present Land Use/Zoning/General Plan Designation:

Retail/Entertainment (RE); approx 22 acres, and Mix of Housing Types/Medium Density Residential (R-MH); approx 29 acres.

Project Description: *(please use a separate page if necessary)*

The proposed project is planned to include a mixture of commercial, residential, recreation, and designated open space on a 51.3 acre site. The commercial component of the project would be located in the westerly portion (21.8 acres) of the project area and consist of 179,688 square feet of retail space including one Costco store with a gas station. This area would be buffered from the residential area by a centrally located open space (5.7 acres). The residential area would be located on the easterly portion of the site and consist of 187 single family units on 23.8 acres. The proposed project incorporates sidewalks, paseos, and a trail, to facilitate alternative transportation between the commercial and residential project elements, and improve access to the proposed open space.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in

NOP Distribution List

County: Solano

SCH# 2018102007

Resources Agency

- [ ] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Denise Peterson
- [ ] **California Coastal Commission**
  Allyson Hitt
- [ ] **Colorado River Board**
  Elsa Contreras
- [ ] **Dept. of Conservation**
  Crina Chan
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [ ] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve Goldbeck
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Curt Babcock
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [x] **Fish & Wildlife Region 3**
  Craig Weightman
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Calvert
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M**
  William Paznokas
  Marine Region

Other Departments

- [ ] **California Department of Education**
  Lesley Taylor
- [ ] **OES (Office of Emergency Services)**
  Monique Wilber
- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Dept. of General Services**
  Cathy Buck
  Environmental Services Section
- [ ] **Housing & Comm. Dev.**
  CEQA Coordinator
  Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Erik Vink
- [ ] **Delta Stewardship Council**
  Anthony Navasero
- [ ] **California Energy Commission**
  Eric Knight
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [x] **Public Utilities Commission**
  Supervisor
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans – Planning**
  HQ LD-IGR
  Christian Bushong
- [x] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Susan Zanchi
- [x] **Caltrans, District 4**
  Patricia Maurice
- [ ] **Caltrans, District 5**
  Larry Newland
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Mark Roberts
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- [x] **Airport & Freight**
  Jack Wursten
- [ ] **Transportation Projects**
  Nesamani Kalandiyur
- [ ] **Industrial/Energy Projects**
  Mike Tollstrup
- [ ] **California Department of Resources, Recycling & Recovery**
  Kevin Taylor/Jeff Esquivel
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Cindy Forbes – Asst Deputy
  Division of Drinking Water
- [ ] **State Water Resources Control Board**
  Div. Drinking Water #_____
- [x] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control Reg. #_____**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [x] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
- [ ] **RWQCB 5F**
  Central Valley Region (5)
  Fresno Branch Office
- [ ] **RWQCB 5R**
  Central Valley Region (5)
  Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
- [ ] **RWQCB 6V**
  Lahontan Region (6)
  Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____
  _____
  _____
- [ ] _____
  Conservancy

Last Updated 5/22/18

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS-10D
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
FAX (510) 286-5559
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

October 30, 2018

Alea Gage, Project Manager
City of Vallejo
Economic Development Div.
Planning Division
555 Santa Clara Street
Vallejo, California 94590

GTS # 04-SOL-2018-00109
GTS ID: 12919
Post Miles: SOL-80-5.005

Subject: Regarding Review of the Fairview at Northgate (Cooke Property) Notice of Preparation

Ms. Gage:

Thank you for including the California Department of Transportation (Caltrans) in the review process for the Fairview at Northgate (Cooke Property). In tandem with the Metropolitan Transportation Commission's (MTC) Sustainable Communities Strategy (SCS), Caltrans' mission signals a modernization of our approach to evaluate and mitigate impacts to the State Transportation Network (STN). Caltrans' Strategic Management Plan 2015- 2020 aims to reduce Vehicle Miles Traveled (VMT) in part by tripling bicycle and doubling both pedestrian and transit travel by 2020. Our comments are based on the Notice of Preparation of an Environmental Impact Report for the Fairview at Northgate (Cooke Property) that you sent to this office for review.

Project Understanding

The proposed project is located on an undeveloped, vacant 51.3-acre site southeast of the intersection of Turner Parkway and Admiral Callaghan Lane at approximately Interstate 80 Post Mile 5.005 in Vallejo, California. It proposes a mixture of commercial, residential, recreation, and designated open space, with the commercial element located in the westerly portion and the residential element located in the easterly portion. The proposed project incorporates sidewalks, paseos, and a trail.

Environmental Planning—Cultural Resources

As part of the environmental review for the proposed project, pursuant to CEQA Guidelines Section 15064.5, we recommend that the City of Vallejo conduct a cultural resource technical study that at a minimum includes a records search at the Northwest Information Center of the California Historical Resources Information System (CHRIS), a field survey of the project area by a qualified archaeologist, and Native American consultation. If an encroachment permit is

needed for work within Caltrans right-of-way, we may require that cultural resource technical studies be prepared in compliance with CEQA, Public Resources Code (PRC) 5024, and the Caltrans Standard Environmental Reference (SER) Chapter 2. You can find it at: (http://www.dot.ca.gov/ser/vol2/vol2.htm).

Should ground-disturbing activities take place within Caltrans right-of-way and there is an inadvertent archaeological or burial discovery, in compliance with CEQA, PRC 5024.5, and the SER, all construction within 60 feet of the find shall cease and the Caltrans District 4 Office of Cultural Resource Studies (OCRS) shall be immediately contacted.

Highway Operations
Caltrans Highway Operations requests an opportunity to review construction plans as well as a Traffic Impact Study. Caltrans is especially interested in the construct impacts to traffic at the on and off-ramps to Interstate 80 at the Redwood Street interchange (Post Mile 4.431).

Hydraulics
While there are no drainage plans attached to the current project plans, Caltrans District 4 Office of Hydraulics expects to see drainage plans and a full report as the project progresses.

If you have any questions, please contact Michael Meloy, Associate Environmental Planner, at (510) 286-5433 or michael.meloy@dot.ca.gov.

Sincerely,

Lisa Carboni

for PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

Edmund G. Brown Jr., Governor

RECEIVED
OCT 15 2018
CITY OF VALLEJO
ECONOMIC DEV DIVISION

October 12, 2018

Alea Gage
City of Vallejo
555 Santa Clara Street
Vallejo, CA 94590

RE: SCH#2018102007 Fairview at Northgate EIR, Solano County

Dear Ms. Gage:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
    d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
    a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
    a. Alternatives to the project.
    b. Recommended mitigation measures.
    c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
    a. Type of environmental review necessary.
    b. Significance of the tribal cultural resources.
    c. Significance of the project's impacts on tribal cultural resources.
    d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
    a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
    b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Sharaya.Souza@nahc.ca.gov.

Sincerely,

for

Sharaya Souza
Staff Services Analyst

cc: State Clearinghouse

Dear Ms. Gage:

The following represents my comments as far as the NOP for the Fairview at Northgate proposal:

1) The proposal calls for parking in front of the “big box” store that will dominate the Admiral Callaghan side of the property. Many communities are realizing that there are better aesthetic alternatives to this type of site design; that do not mitigate the viability of the commerce conducted there. I would like to see the EIR, perhaps under the “Aesthetic" analysis, or the “Land Use and Planning” element, consider an alternate proposal that would put the parking for the large store behind, or along side the store, and siting the store frontage itself (building footprint) adjacent to Admiral Callaghan Lane rather than the parking lot as proposed.

2) Big box stores are by their nature are large aesthetic impacts. They are, historically speaking, relatively recent, albeit widely-accepted, incursions on what could be called the “architectural or community space.” Along with skyscrapers, extensive parking lots and roadways, this “space” has diverged, for better or less, from the kinds of historical development patterns that were known by our long-deceased ancestors and that are generally appreciated world-wide to this day. We are not going back. But that said, new developments can be encouraged to make as many “enhancements” as possible to positively contribute to the “architectural or community space.” Along those lines, I would like to see the following considered either in the draft EIR, or the FEIR:

a) Per the documents I have reviewed, there are neither facade drawings or landscape plans. I do not think the aesthetic impacts can be fully appreciated without these plans and I believe they should be included and reviewed as part of the aesthetic impact component of an EIR for this proposal.

b) The large store, and the adjacent smaller stores, will be part of a “viewscape” that is 360 degrees around each structure. There will be no backside that will be hidden from view. Therefore I think it is important that architectural facade designs are oriented such that building aesthetics, from all directions, are considered within the “Aesthetic” component of the EIR.

c) Whatever the merits, or lack of merits, in the building aesthetics of any given project, the use of trees and other landscape elements almost universally make any project more pleasing. I would hope that this development makes intensive use of this orientation at least to the equivalent level of the nearby “Target Center,” and is demonstrated with plans that are included within the EIR.

d) Per the conceptual site plans, landscape islands are included in the parking area. I would like to see the expanded use of landscaping in the parking areas. There are built examples of parking lots that place a landscape strip in-between all parking. This can be found in downtown Napa for example. The merits of this are both aesthetic and environmental. The aesthetic merit may be obvious, but it could be noted that all vegetation helps to sequester carbon, and significant tree canopies in parking lots help to reduce heat arising from parking areas. I would like to see this considered in the EIR.

3) The site plan for housing calls for very small lots for single-family-homes. These appear to be even smaller than those that were subdivided to create the new housing stock on Mare Island. While the development community has demonstrated that there is a willing market for sizable homes on small lots, this is yet another divergence from historic development patterns. The Vallejo zoning code itself calls for a minimum of 5,000 sq. ft. per single family home. While there exists the legal option of changing that requirement through the planned development process, I question the virtue. This small lot development creates building entities that you could say are neither “fish nor fowl” historically speaking. They are neither the traditional single-family home, with a larger lot, nor a townhouse or condominium development.

The small lots require minimal building setbacks to squeeze the homes into the lots, and I believe this also diverges from the requirements per the Vallejo zoning code. I would say, that as a relatively new development phenomena, this is not, as yet, well-researched in terms of how single family owners feel about this type of "squeezing" vs. traditional single-family site developments. This may be hard to quantify but I think it deserves consideration.

I would like to see the issues, under this heading (3), discussed in the "Land Use and Planning" element of the EIR. Perhaps original research may have to be conducted to measure the satisfaction property owners have within existing developments of this type, or perhaps citations could be made if there is existing research. The development community is very astute in maximizing their interests against probable market interests, no judgment there, but it seems worthwhile to consider their interests against what may be long-term community interests, or interests not necessarily measured fully by a more obtuse emphasis on market considerations.
4) I would like to see the entire proposal measured against the criteria and goals of LEED considerations. Ideally this development would satisfy as many LEED considerations as is practical. Among those goals would be the use of an energy supply that lessens dependence on fossil fuel energy sources. It seems entirely reasonable to consider rooftop solar energy systems on every building. This has also been developed over parking lots themselves within some projects, as both an energy source and a way of mitigating the heat conducted from parking lots into the atmosphere. From my perspective this could be utilized as a substitution for tree canopies over parking areas, but I would still like to see perimeter tree plantings, with other infill landscaping, in addition, if this is proposed.

Arguably all the considerations here may be contradicted by cost considerations by the developer. However, developers often do not consider how some enhancements to their projects may actually contribute to a higher "premium" for their projects both in the short term and the long term. This would include developing an identity and notoriety that can positively impact value, marketing, and community "buy-in." This might not be a consideration to analyze in the EIR, but I think a meaningful aside.

Thank you for giving notice regarding preparation of the EIR. I wish to have my considerations viewed not as being against the project, but supplemental considerations that hopefully may help the project achieve as many virtuous impacts as are possible.

James Cisney
175 Mountain View Ave.
Vallejo, CA 94590
707-647-1608
jcisney@comcast.net

Alea Gage

From: jcisney@comcast.net
Sent: Monday, October 22, 2018 3:02 PM
To: Alea Gage
Subject: Addendum to "Fairview at Northgate EIR NOP Scoping Comments"

Dear Ms. Gage:

I left out one other consideration I have in my prior submittal. Sorry for that.

My further consideration is in regards to “alternatives.” While I favor what could be construed as “bird in the hand” projects, fully knowing the challenges for both developers and economic development in general within our community, I think the EIR would be remiss if it didn’t consider “Office Park” as one of the alternatives to the proposed development.

Vallejo has few, large undeveloped properties that could be used for office park development. There could be arguments made for this alternative given the need to create more, ideally higher-paying, job opportunities not only in Vallejo but regionally outside the usual concentration of these sorts of developments in other communities around the Bay Area that create troubling commuter patterns and lifestyle and environmental impacts.

While this may not be considered as significant as the proposal being made, or as viable, I would like decision makers to weigh, or at least be encouraged to acknowledge, the merits of an office park against what is proposed via the EIR process.

Thank you,

James Cisney
175 Mountain View Ave.
Vallejo, CA 94590
77-647-1608
jcisney@comcast.net
********** This is an EXTERNAL EMAIL. Stop and think before clicking links or opening attachments.
****

Alea Gage

From: Jimmy Genn <jimmygenn@gmail.com>
Sent: Friday, October 19, 2018 9:56 AM
To: Alea Gage
Subject: Re: Fairview @ Northgate Project (Cooke Property)
Attachments: image001.jpg; image002.png; image003.png; image004.png; image005.png; image006.png

Alea, Good Morning. Thank you. Comments on development of the Cooke Property. After remembering the long time discussion of the Cooke Property and referring to our General Plan, the following:
-Discussion was for the Cooke Property to be used as Commercial for many jobs per acre, as much tax generation as possible, with considering its high visibility from Interstate 80. Housing does not generate as many permanent jobs and as much tax revenue as commercial.
- General Plan Pages, 2-14, 6-17, and 6-23 say the Cooke Property is to be commercial of retail, office and hotel, used for destinations, and with transportation options which utilize Turner Parkway as a "corridor" for frequent transit connections with Downtown and other similar commercial areas. If housing then, multiple.

Thank you. Jimmy W. Genn, Go Vallejo!

On Mon, Oct 15, 2018 at 5:41 PM Alea Gage <Alea.Gage@cityofvallejo.net> wrote:

> Hi Jimmy,
>
> Thank you for your interest in the Cooke Property. I have attached the Notice of Preparation for the Environmental Impact Report for the proposed project. Please feel free to comment on what should be considered in the environmental analysis by responding to this email (or by email to the address in my email signature. The 30-day period for comments on the EIR scope concludes on November 1, 2018.
>
> Best,
>
> Alea
>
> **Alea Gage**
>
> **Economic Development Project Manager**
>
> *City of Vallejo* | *Economic Development Division*
>
> *555 Santa Clara Street, Vallejo, CA 94590*

(707) 649-5454 | alea.gage@cityofvallejo.net

Please note that I am in the office on Mondays, Wednesdays and Thursdays. I check email intermittently on days I am not in the office. Thank you for your understanding.

********** This is an EXTERNAL EMAIL. Stop and think before clicking links or opening attachments.
****

Rebecca Schwartz Lesberg
105 Shoal Drive West
Vallejo, CA 94591

October 19, 2018

Alea Gage
Economic Development Project Manager
City of Vallejo - Economic Development Division
555 Santa Clara Street
Vallejo, CA 94590

Re: Fairview at Northgate (Cooke Property) EIR – Notice of Preparation

Dear Ms. Gage,

Thank you for the opportunity to provide comments on the Notice of Preparation of an Environmental Impact Report for the Fairview at Northgate project (Cooke Property). My name is Rebecca Schwartz Lesberg and I am a Vallejo homeowner in the Glen Cove neighborhood. I am also a conservation biologist with a background in avian ecology, particularly in the context of land use and development. In my current role, I serve as the San Francisco Bay Program Director for the National Audubon Society, and I was previously the Director of Conservation for the San Diego Audubon Society. However, I write today as a private citizen and these comments do not serve as official or unofficial input from the Audubon Society.

I would first like to applaud the City in encouraging and supporting mixed-use economic development in Vallejo, particularly along the I-80 corridor. It is exciting to see this kind of activity advancing in our community. I am particularly please to see that the proposed project includes an area of open space that can provide opportunities for wildlife corridors, enhance flood control efforts, and support habitat for birds and other wildlife. However, there are areas in the proposed project that could be made better through thoughtful consideration of project options. As you move forward with the EIR for the proposed project, I submit the following comments for your consideration:

- **Analyze alternatives that provide the proposed open space (which would serve as wildlife habitat) with appropriate buffers *from* adjacent commercial and residential development, rather than simply considering the open space as buffer *for* the residential development from the commercial activities.**

The NOP currently states, "This open space would separate the proposed project's commercial and residential components, and provide a buffer between the two uses." However, open space is a critical source of habitat for wildlife in urban areas (including residential species and species that use the area as wildlife corridors). The NOP identifies that part of the proposed open space includes an area designated as wetland habitat, which is a particularly important habitat type. Please consider that though the site may seem

"vacant" or "degraded" from the perspectives of human use, such sites often provide critical habitat for wildlife in urban settings. I encourage you to reframe the purpose of the open space and to analyze alternatives that provide appropriate buffers for the wildlife that depends on it.

The EIR should fully analyze what impact the proposed development would have on existing resources. To do so correctly, the EIR should include the collection of baseline monitoring data, collected during the correct time of day and year to capture the full range of wildlife that currently use the large, open site. These data should then be used to inform what mitigation measures, if any, would be required to offset the likely impact of the project. These data will also provide information regarding the appropriate buffer needed between developed and open space.

Though existing data are not readily available for the site (e.g., on eBird, the Cornell Lab of Ornithology's online community science database), nearby open space areas of Dan Foley Park and Hanns Park have documented 119 and 64 species of birds, respectively[1], and provide an insight into the likely usage of the project by wildlife.

- **Analyze alternatives that consider the inclusion of multi-family residences**

As currently proposed, the project includes 178 units of single-family residences. However, the project site is located immediately adjacent to one of the most fully developed shopping centers providing services to residents of Vallejo, is along the I-80 corridor (the most significant north-south transportation artery in Vallejo), and is on three SolTrans bus routes (7, 2, and 20) that provide access to Solano Community College, Soreno Transit Center, Vallejo Transit Center, and the Vallejo Ferry. As the NOP notes, "The proposed project was designed… to encourage pedestrian activity within the residential community as well as from the residential community to the service oriented uses at the north end of the commercial area."

This project site is the exact kind of place where high density, multi-family residences should be prioritized. If our community is going to push back on suburban sprawl in our hills and backcountry, we have to prioritize higher density housing along transportation corridors and near commercial services. I encourage you to consider alternatives that replace a significant proportion of the 178 single-family homes with higher density multi family residences, and a mixture of attached homes.

- **Analyze alternatives that provide adequate parks for residents**

As currently described, the proposed project would include 178 single-family housing units. At approximately three people per household, this development could reasonably be expected to accommodate 534 people. According to the American Planning Association, adequate park space is defined as 10 acres per 1000 people (the equivalent of 5.34 acres per 534 people) and the state of California defines "park poor" communities as having less

[1] https://ebird.org/hotspot/L2423237, https://ebird.org/hotspot/L1182589

than three acres per thousand residents (the equivalent of 1.6 acres per 534 people). As currently described, the proposed project includes only 2.44 acres of parks, failing to provide the necessary 5.34 acres and very close to the "park poor" 1.6-acre threshold.

Given higher rates of childhood and older adult obesity in Solano County (including Vallejo) and lower rates of physical activity as compared to the state average[2], our city should be prioritizing access to outdoor park space for its residents. This is consistent with the City of Vallejo's March 13, 2018 proclamation "In recognition of the 'And Beauty for All' Campaign", which proclaimed that "nature, parks, and green space improve both health and happiness" and called for, "a renewed commitment to conserving, restoring, and enhancing beautiful surroundings for all Americans." I encourage the project applicant to incorporate adequate park space in its preferred alternative. Not only will this provide benefits for the residents of the proposed development, but providing adequate, appropriate park facilities will discourage the misuse of the preserved open space areas. If people don't have designated outdoor facilities to play in, they will make their own. This will increase the costs of ongoing maintenance and access control of the open space, as well as decrease it's value as wildlife habitat. Providing adequate park acreage makes social, economic, and environmental sense.

Again, thank you for the opportunity to provide comments on the proposed Fairview at Northgate project. I hope that you will take these comments under consideration as plans for the development move forward. We have an opportunity in Vallejo to encourage economic activity while also providing for environmental just communities for our residents and safe, healthy, habitat for our wildlife. We should be taking that opportunity at every chance.

Thank you,

Rebecca Schwartz Lesberg
Vallejo resident and homeowner

[2] https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=26174

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Appendix B

Economic Impact Analysis; and
Fiscal Impact Analysis

DAVID TAUSSIG & Associates, Inc.

ECONOMIC IMPACT ANALYSIS (PHASE I)

FAIRVIEW AT NORTHGATE
VALLEJO, CALIFORNIA

DECEMBER 16, 2019

Prepared For

Kimley-Horn & Associates, Inc.
555 Capitol Mall #300
Sacramento, CA 95814

Prepared By

David Taussig & Associates, Inc.
99 Almaden Boulevard, Suite 875
San Jose, CA 95113

Public Finance
Public-Private Partnerships
Urban Economics
Clean Energy Bonds

Newport Beach
Riverside
San Francisco
San Jose
Dallas
Houston

TABLE OF CONTENTS

SECTION PAGE

EXECUTIVE SUMMARY I
- A. Conclusions I
- B. Project Description I
- C. Methodology II
- D. Summary of Findings IV

SECTION 1. INTRODUCTION 1
- A. Overview 1
- B. Project Description 4
- C. Methodology 4
- D. Limitations 7

SECTION 2. URBAN DECAY 8
- A. Key Indicators 8
- B. Employment Indicators 11
- C. Economic Impact Analysis 13
- D. Cumulative Retail Impacts of the Project 19
- E. Cumulative Impacts of Additional Proposed Food & Beverage Projects 22
- F. Economic Impact Determination 25

APPENDICES

Appendix A: Economic Impact Analysis Model

Appendix B: Land Use Plan

EXECUTIVE SUMMARY

A. CONCLUSIONS

David Taussig & Associates, Inc. ("DTA") has prepared this Economic Impact Analysis ("EIA") in order to analyze the potential short- and long-term economic impacts of the Fairview at Northgate project (the "Project") under the framework provided by Section 16.76.040 of the City of Vallejo (the "City") Municipal Code ("the Code"). DTA was tasked with examining the local and regional markets for existing and proposed stores that provide retail and food and beverage retail uses to determine whether there is potential demand for these uses at the Project site. In completing the analysis, DTA evaluated the possibility that the development of these uses on the Project site might cause the saturation and/or deterioration, or "Urban Decay," of existing and proposed retail development within the City and the County of Solano ("County"), including the reuse of an existing site that would be closed as a consequence of the Project. In addition to its Urban Decay and Economic Impact Analysis, DTA has further evaluated the Fiscal Impacts of the proposed Project by examining the residential and non-residential land uses. The Fiscal Impact Analysis can be found as Phase II of this Study.

As summarized below in this Executive Summary and discussed in detail in the text of the EIA, the Project will add to the supply of retail outlets available to residents of the Project's Primary and Secondary Trade Areas (the "Trade Areas"). The Primary Trade Area encompasses a 3-mile radius from the Project site, whereas the Secondary Trade Area encompasses a 7-mile radius from the Project site. By and large, the demand for retail goods in the Trade Areas exceeds current retail supply. The key reason for this is that the retail sales currently experienced in these Trade Areas fall below the demand for retail goods generated by the residents currently living in these areas, and as a result these residents venture outside the Trade Areas to fulfill their needs.

Retail vacancies within the Trade Areas have decreased in recent years, and as the real estate market becomes more competitive within the Bay Area and the draw toward the East Bay and City of Vallejo rises due to relatively affordable housing prices, increasing retail demand is likely to further reduce any likelihood of Urban Decay related to the construction of the Project.

The timing of the Project and its ultimate buildout, estimated to occur by October 2022 for the retail component and by October 2023 for the residential component, offers the City and the County an opportunity to capitalize on current growth while protecting against changes in market cycles. Yet, irrespective of timing, the Project will play an important role in satisfying the Trade Areas' under-served retail demand by improving the balance between supply and demand in these areas. Consequently, the Project is not expected to cause Urban Decay or any related physical changes.

B. PROJECT DESCRIPTION

The proposed Project is located in the City of Vallejo within the County of Solano and spans approximately 51.3 acres. It is comprised of approximately 179,688 square feet of retail/commercial space (including the proposed Costco, five retail pads, and gasoline service station accommodating up to 30 fueling dispensers and a related kiosk) within 21.8 acres, a residential component of 178 single family units within 23.8 acres, and 5.7 acres of open space. Notably, the new Costco is to replace a Costco less than one mile from the Project site; the net effect of the replacement is an additional 26,701 square feet. The Project site is located on a vacant, undeveloped lot, and is

bounded to the west by the Admiral Callaghan Lane right-of-way, to the north by the Turner Parkway right-of-way, to the south by a car dealership, residential condominiums, and apartments, and to the east by single family homes. The I-80 freeway is immediately adjacent to the west of Admiral Callaghan Lane. Please refer to **Map ES-1** for further information on the elements and location of the Project.

TABLE ES-1

APPROXIMATE LAND USE ASSUMPTIONS

LAND USE	ACREAGE
Retail/Commercial	21.8
Residential	23.8
Open Space	5.7

C. METHODOLOGY

The EIA analyzes the potential short- and long-term economic impacts of the proposed Costco. The term "superstore" shall refer to a business providing retail sales and food and beverage retail sales, as such terms are defined in Chapter 16.06, where the combined uses occupy seventy-five thousand square feet or more gross floor area and devote ten thousand square feet or more of the gross floor area to the sale of nontaxable merchandise, including but not limited to food and beverage retail sales. City Municipal Code Section 16.76.040 is substantially as follows, and requires:

1. A survey of the existing stores, including their current average retail sales, that provide retail sales and food and beverage retail sales within the city and the cities of Benicia and American Canyon, and/or in other retail and food and beverage retail market areas that would be served by the proposed superstore, regardless of whether such stores are within the political boundaries of the city, and that are likely to be economically affected by the proposed superstore.

2. A survey of the existing, proposed, and/or pending superstores within the affected area.

3. A survey of the number of persons who are employed on either a full-time or a less than full-time basis, and a delineation of each, by the existing stores and an estimate of the number of persons who would be employed on both a full-time or a less than full-time basis, and a delineation of each by the proposed superstore.

4. An analysis of the short- and long-term effect the proposed superstore could have on the retail stores specified, which shall include an analysis of the proposed superstore's potential impact on the following within the affected area: retail sales, food and beverage retail sales, store closures, jobs, and any food and beverage retail and/or retail stores that could potentially close, including an analysis of the potential for using the closed site(s) for similar or other use. Such analysis shall also include a survey of established compensation and wages standards in comparable stores operated by the applicant compared to those established in the affected area.

5. An analysis of both the short- and the long-term potential effects of the proposed superstore on retail and food and beverage retail sales in the affected area, including a conclusion as to whether the proposed superstore would cause a net increase or decrease in retail and food and beverage retail sales in the affected area.

6. A fiscal impact analysis, which shall include, but not be limited to, an analysis of the projected sales tax revenues for the proposed superstore and an analysis of both the short- and the long-term effects of the proposed superstore on net sales tax revenues generated by existing retail and food and beverage retail stores in the city.

7. An analysis of the proposed superstore's potential short- and long-term net effect on the ability of consumers in the affected area to obtain a variety of food and beverage and retail products in light of the analysis concerning potential closure of retail and/or food and beverage retail stores within the affected area.

8. An analysis of the average savings a typical consumer might expect, if any, by the approval of the proposed superstore.

In addition to requiring specific metrics (#1 and #3), Section 16.76.040 is also very concerned with Urban Decay (#4, #5, and #7). Urban Decay is an environmental, economic, and social problem that may be caused by the abandonment of existing retail development that results from highly competitive new retail development. This abandonment can lead to higher vacancy rates and deferred maintenance of existing retail square footage by its owners, who no longer receive the level of rental income necessary to maintain their properties. This in turn can lead to lower property values, higher crime rates, a damaged business environment, and a continuing cycle of events that can cause a variety of economic and social problems for a municipality. While it may take years for this type of deterioration to occur, once it starts, it can be difficult to stop.

To evaluate the potential for the Project to cause Urban Decay due to closures of existing retail stores, DTA evaluated the supply and demand for each specific retail category (e.g., r, food stores, etc.) in each of the geographic areas that will be impacted by the Project, otherwise known as the Project's Trade Areas or the "affected areas." To determine existing retail conditions, the most recent annualized data available to the City (2019), herein referenced as the "Existing Conditions," was obtained from the Nielsen Company. The EIA also assumes that the retail and residential components will be completed by October 2022 and October 2023, respectively, but that stabilized sales within the Project will first occur in 2024.

To determine the likelihood of Urban Decay occurring within the Trade Areas, the following methodology was applied in this analysis:

1. The boundaries of the Primary and Secondary Trade Areas that would support the Project were identified;

2. Retail sales expected within the Project were defined;

3. Current consumer demand generated by existing residents in each of the Trade Areas was determined;

4. Current retail sales in each of the Trade Areas were estimated;

5. The amount of existing retail leakage (local demand greater than local supply) or retail surplus (local supply greater than local demand) in each of the Trade Areas was calculated;

6. Projected future retail demand versus retail supply in 2024, herein referenced as the "Future Conditions" assuming completion of the Project for each of the Trade Areas, was calculated to determine if future retail leakage or retail supply surplus is expected to occur;

7. Other planned developments in the Trade Areas were identified where possible – and the Future Conditions supplies for food and retail were increased to include additional sales generated by the successful completion of these other developments – to determine the impacts of this additional supply;

8. Current retail vacancy rates in the vicinity of the Project were determined; and

9. The extent to which the Project is likely to contribute to Urban Decay in the Trade Areas, based on the findings under Tasks 1-8, was assessed. Evidence of retail leakage in the future despite the construction of the Project would suggest little potential for Urban Decay. Conversely, evidence of an oversupply of retail space would be a reason for greater concern regarding the potential for Urban Decay.

Please note that updated population, employment, and Citywide retail vacancy information, as well as a discussion of market impacts related to the positive real estate forecast have been provided in Section 2 of this analysis.

D. SUMMARY OF FINDINGS

To assess the potential impacts of the Project on existing retail development, the market area and population that would be served by the Project must first be determined. Local-serving retail uses include grocery and drug stores, cleaners, and other retail uses commonly found in neighborhood shopping centers, all of which generally attract customers from within the Primary Trade Area. Regional retail uses consist of goods and services for which consumers are willing to travel outside of their immediate neighborhoods, and include general merchandise, apparel, home furnishings and other retail uses. These regional uses generally attract customers from both the Primary and Secondary Trade Areas. While consumers are sometimes willing to travel considerable distances to purchase certain goods and services, they generally tend to shop at centers closest to their places of residence — all else being equal. Therefore, the Primary and Secondary Trade Area boundaries for the Project were established based on the distance between local residences and their nearest retail centers, as well as existing roadway systems and traffic patterns that impact where local residents do their shopping. **Exhibit 11** in **Appendix A** identifies the Project Trade Areas in relation to the locations of other centers with major anchors.

The Project is not expected to compete with existing retailers located beyond the Secondary Trade Area as consumers who reside beyond those boundaries would have multiple shopping center options that are located closer to their residences (or in some cases, their places of work).

Additionally, the projected retail sales of the Project represent a small percentage of total retail sales currently occurring beyond the Secondary Trade Area and are thereby unlikely to have a major impact on the shopping habits of residents outside of the Primary and Secondary Trade Areas. Demographic data for 2019 (the "Existing Conditions") provided by the Nielsen Company indicates that there are 39,852 households in the Primary Trade Area and 68,143 households in the combined Primary and Secondary Trade Areas, with median household incomes of $66,006 and $77,437, respectively.

The EIA first examines the current market dynamics within each of the Trade Areas to determine the ability of each Trade Area to capture the expected retail demand of its own residents. Retail demand generated by Trade Area residents which is not currently captured by retailers within the Trade Area would indicate that there is existing excess demand to support the Project's planned retail developments without negatively impacting existing businesses within the Trade Areas. The EIA compares existing retail demand generated by residents of each Trade Area versus existing retail supply within each Trade Area, and illustrates that there is a current shortfall of $222.7 million in retail sales in the Primary Trade Area, versus a shortfall of $691.0 million in retail sales in the combined Primary and Secondary Trade Areas (see **Figures ES-1** and **ES-2**). This shortfall indicates that demand for retail goods in the Trade Areas is much greater than the sales experienced by retail outlets currently located in such areas.

With respect to food and beverage establishments specifically, when combining the Food and Eating and Drinking categories, there is a de minimis surplus of $4.5 million in the Primary Trade Area and a shortfall of $61 million in the combined Primary and Secondary Trade Areas. Costco's business operations include selling groceries, which falls under the Food categorization, as well as running a limited-service restaurant/snack bar, which falls under the Eating and Drinking categorization. As such, for the purpose of this analysis, DTA has combined the Food and Eating and Drinking categories to better reflect the supply this Project will contribute to these related categories. DTA acknowledges the oversupply of $52.9 million in the Primary Trade Area when solely examining the Food category, however given the fact that the Project is merely the relocation and expansion of an existing Costco, and only half of the additional 26,701 square feet will be used for grocery items, as confirmed by the Proponent, there is no evidence to indicate that the Project would exacerbate the already existing surplus. The Project is also not expected to compete with other typical grocery store chains, such as the nearby Safeway, because although both stores offer food and beverage items, each location has a different use to the average consumer depending on their needs.

DTA also recognizes the $122.7 million surplus in the Automotive category, however this is likely due to the quantity of motor vehicle dealers within the Primary Trade Area, which inflates and distorts these figures. According to data obtained from the Nielsen Company, new and used car dealerships comprise 87 percent, or $379.4 million, of the $434.3 million total supply in the Automotive category. The majority of dealership revenue is generated from vehicle sales and the vast majority of goods offered by Costco are not similar to those of a car dealership. As previously mentioned, because the Project is merely the relocation and expansion of an existing Costco and approximately 25 percent of the additional 26,701 square feet will be used for non-grocery retail items, as confirmed by the Proponent, there is no evidence to indicate that the Project would exacerbate the already existing surplus or cause Urban Decay and/or market saturation within the Trade Areas. Additionally, dealerships typically serve a sub-regional population, one well in excess of our Primary and Secondary Trade Areas. Overall, the retail sales figures represent a healthy supply/demand equilibrium, which

is very unlikely to be upset by the expanded Costco's (additional 26,701 square feet) sales, and any existing surpluses will not be worsened by the Project.

DTA evaluated the closure and reuse of the current site upon completion of the Project. The Project Proponent will place a deed restriction on the original site to prevent any "bulk sale merchandisers" or other general merchandise retailers, which rules out any potential issues that may be caused by the addition of retail uses similar to that of Costco. Based off data provided by the Proponent, it is likely that any new retailer will fall under the General Merchandise or Other Retail categories. The existing site provides 125,437 square feet of potential retail space, and at an average taxable rate of $300 per square foot, the re-tenanting of this space would add an estimated $30.1 million to the existing supply, increasing the supply in the General Merchandise category to $421.8 million with a remaining demand of $137.7 million, and the supply of the Other Retail category to $359.4 million with a remaining demand of $240.8 million. In both scenarios, there would still be significant demand for additional retail in either category, and the re-tenanting of the existing site would provide an expanded opportunity for new retailers to enter the market and fulfill this unmet consumer demand.

MAP ES-1
PRIMARY (3 MILE) AND SECONDARY (7 MILE) RETAIL TRADE AREAS

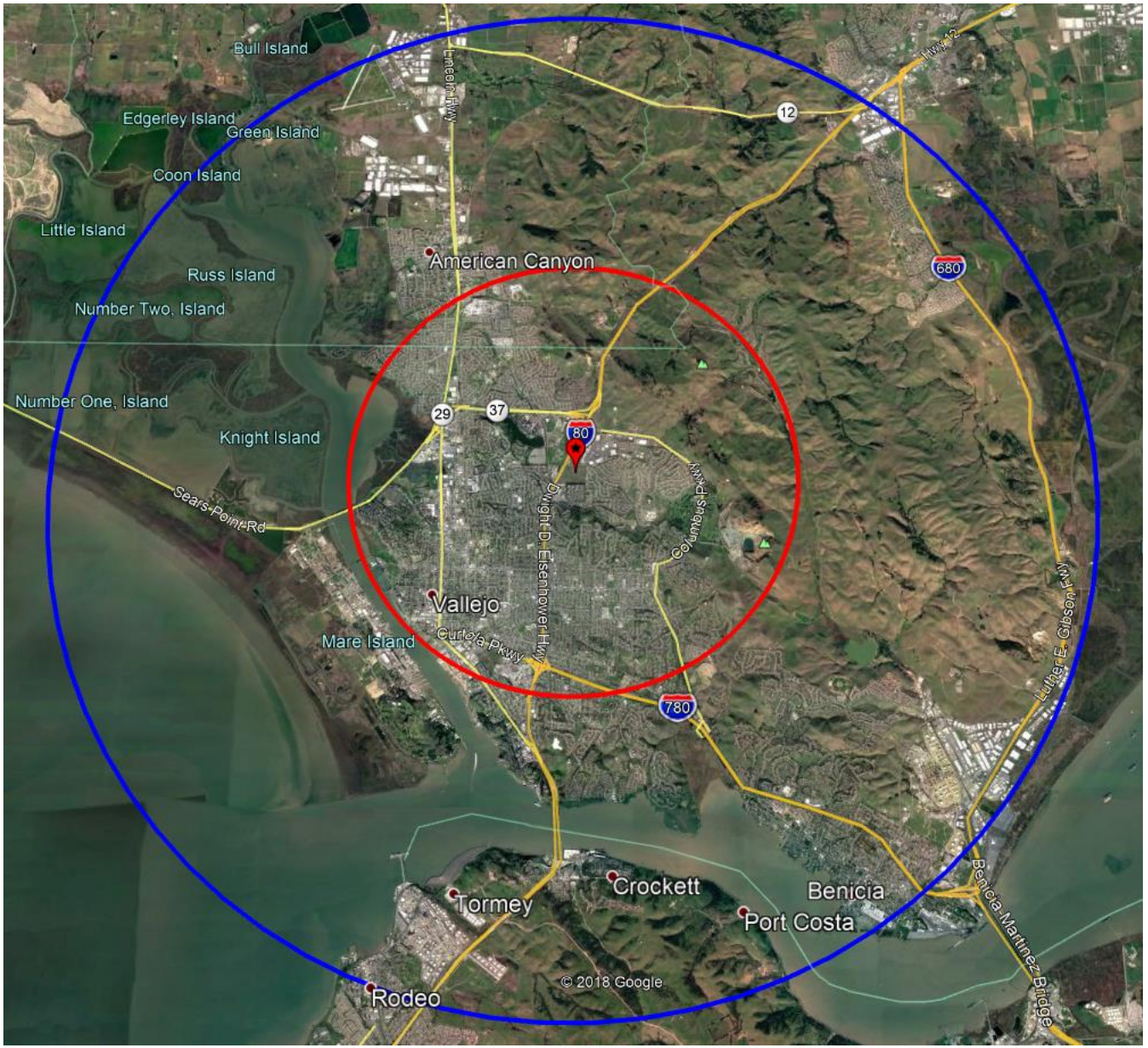
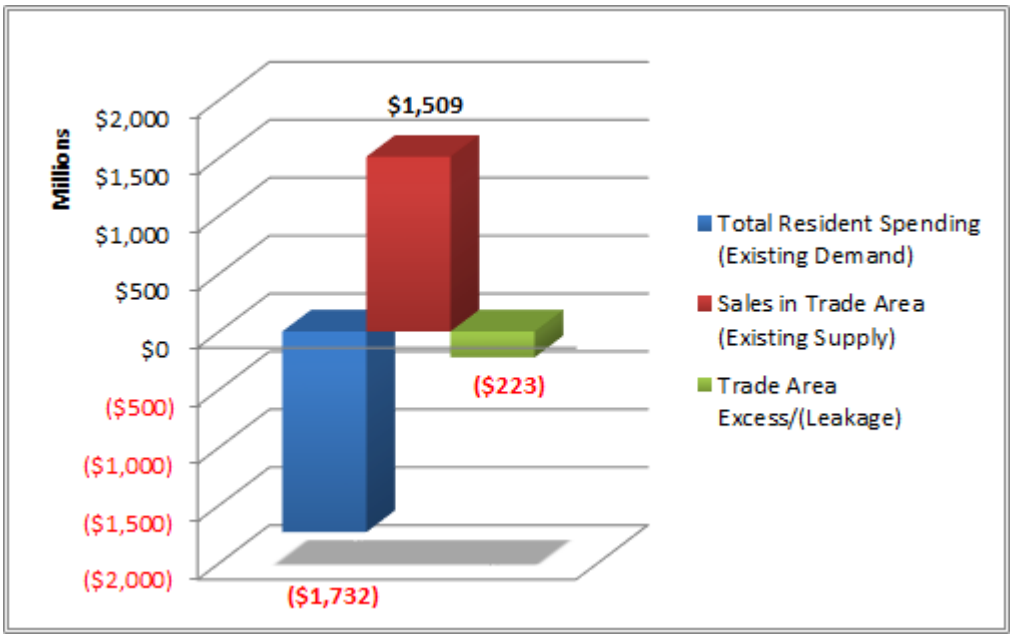
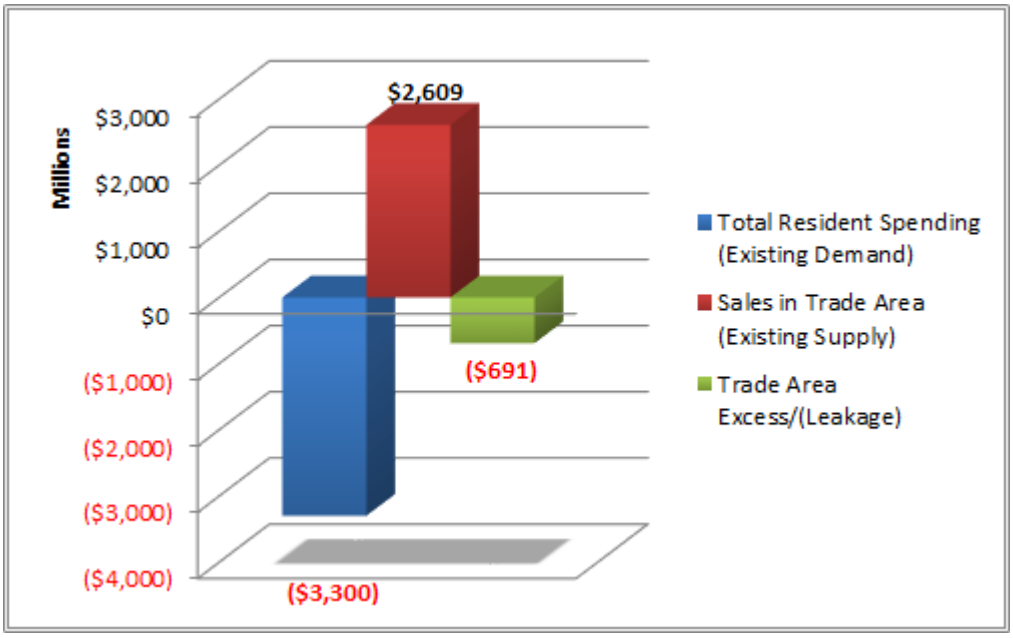


FIGURE ES-1
RETAIL SUMMARY
EXISTING PRIMARY TRADE AREA



Source: Nielsen Company, Solano County, Census Bureau.

FIGURE ES-2
RETAIL SUMMARY
EXISTING COMBINED PRIMARY & SECONDARY TRADE AREAS



Source: Nielsen Company, Solano County, Census Bureau.

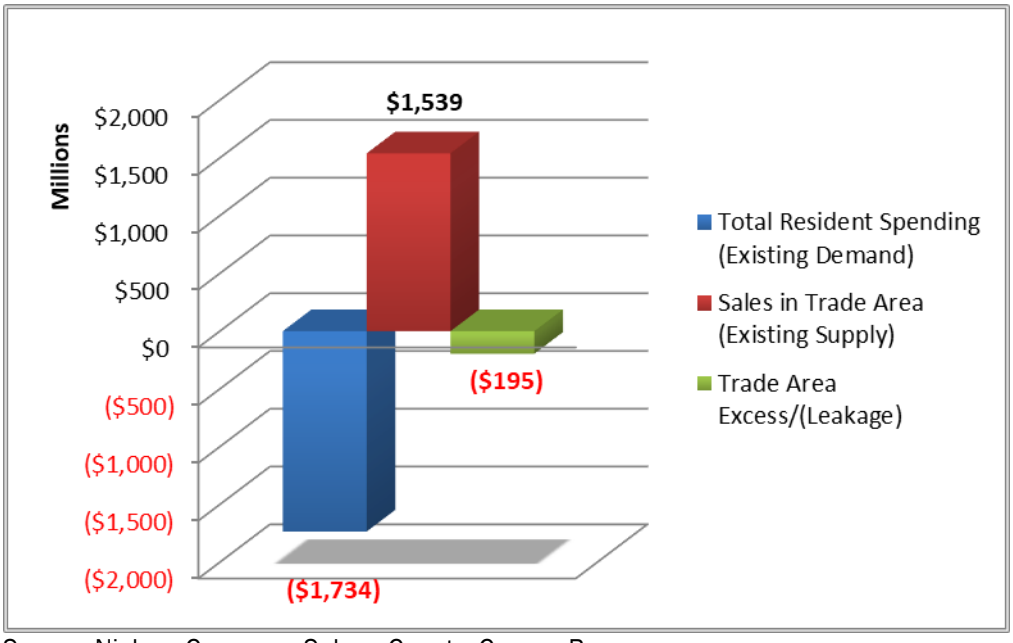
The next task undertaken in the EIA involves projecting the Future Conditions of the Trade Areas, including any potential impacts on retail supply and demand that would be caused by the development and launch of the Project. Based on 2024 projections by the Nielsen Company, DTA estimates that the number of households in the Primary Trade Area will increase from 39,852 to 41,483 by 2024, while the number of households in the combined Primary and Secondary Trade Areas will increase from 68,143 to 71,302 by 2024.

The retail leakage analyses demonstrate a continued overall excess of future consumer retail demand from Trade Area residents (vis-à-vis the future retail supply that includes the projected sales of the Project). The Primary Trade Area is projected to generate $195.2 million in excess retail demand, while the combined Primary and Secondary Trade Areas are projected to produce $663.9 million of excess retail demand under Future Conditions by 2024. Therefore, it is anticipated that there will be considerable demand for new retail uses on the Project site, and the additional retail sales generated by the Project are not expected to create an overall long-term excess of retail supply within the Trade Areas.

With overall retail demand levels well above retail supply, there will continue to be an overall shortage of retail supply in both Trade Areas (*see* **Figures ES-3** and **ES-4**). This supply shortfall suggests that there will be a substantial need for additional retail square footage under the Future Conditions scenario.

FIGURE ES-3
RETAIL SUMMARY

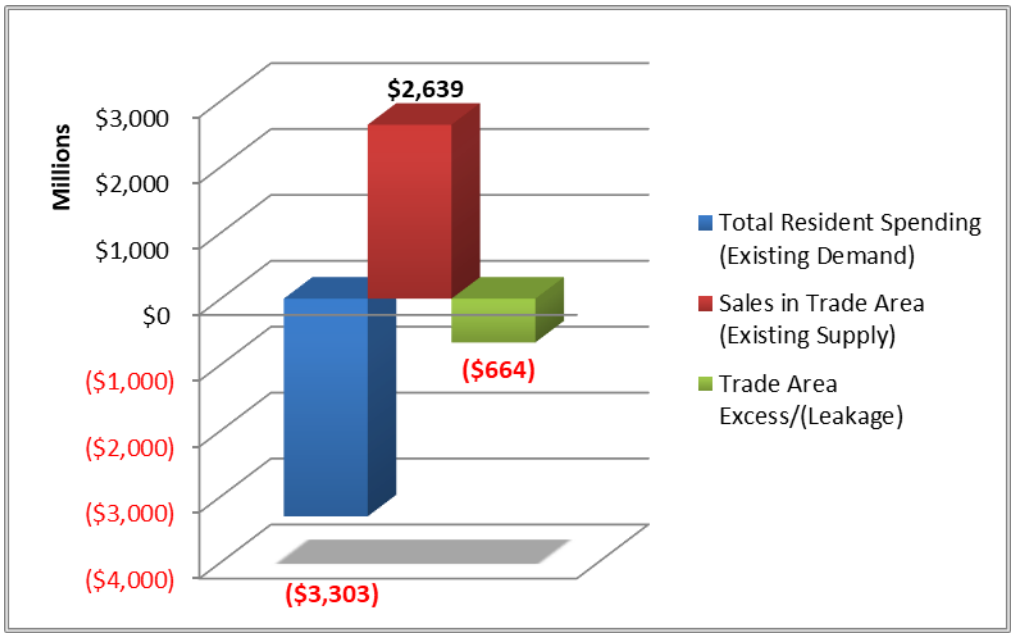
FUTURE PRIMARY TRADE AREA WITH PROJECT



Source: Nielsen Company, Solano County, Census Bureau.

FIGURE
ES-4
RETAIL SUMMARY

FUTURE COMBINED PRIMARY & SECONDARY TRADE AREAS WITH PROJECT



Source: Nielsen Company, Solano County, Census Bureau.

Cumulative Impacts of Additional Proposed Retail Projects

In order to fully assess the retail market situation in the future, this EIA has also accounted for the cumulative effects of any additional retail projects that could affect supply in the Project's Trade Areas. After a thorough review of local real estate publications and County and City Planning Department documents and records, DTA:

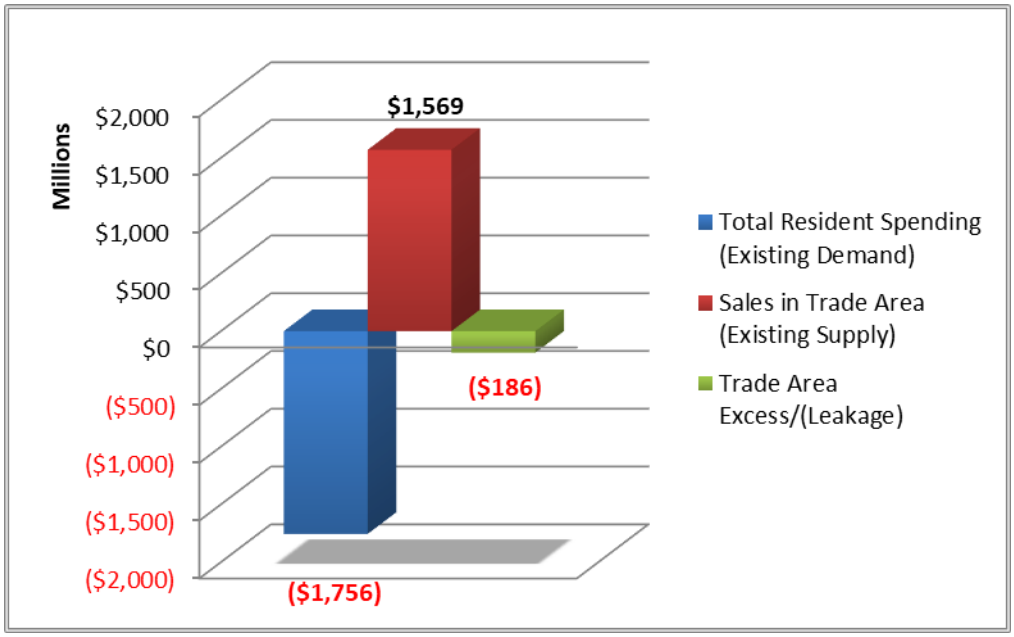
A. Compiled a preliminary list of proposed retail defined as superstores in the City's Municipal Code.

B. Estimated the square footage of proposed projects in each jurisdiction within the Trade Areas.

C. Concluded that the Primary Trade Area is projected to generate $186.1 million in excess retail demand in 2024 under Future Conditions with all proposed projects, while the combined Primary and Secondary Trade Areas with all proposed projects are projected to produce excess retail demand of $684 million by that year (see **Figures ES-5 and ES-6**). Therefore, DTA anticipates that, even after including all proposed projects, there will still be considerable demand for new retail uses on the Project site, and the additional sales to be generated by the Project will not create an overall long-term excess of retail supply within the Trade Areas.

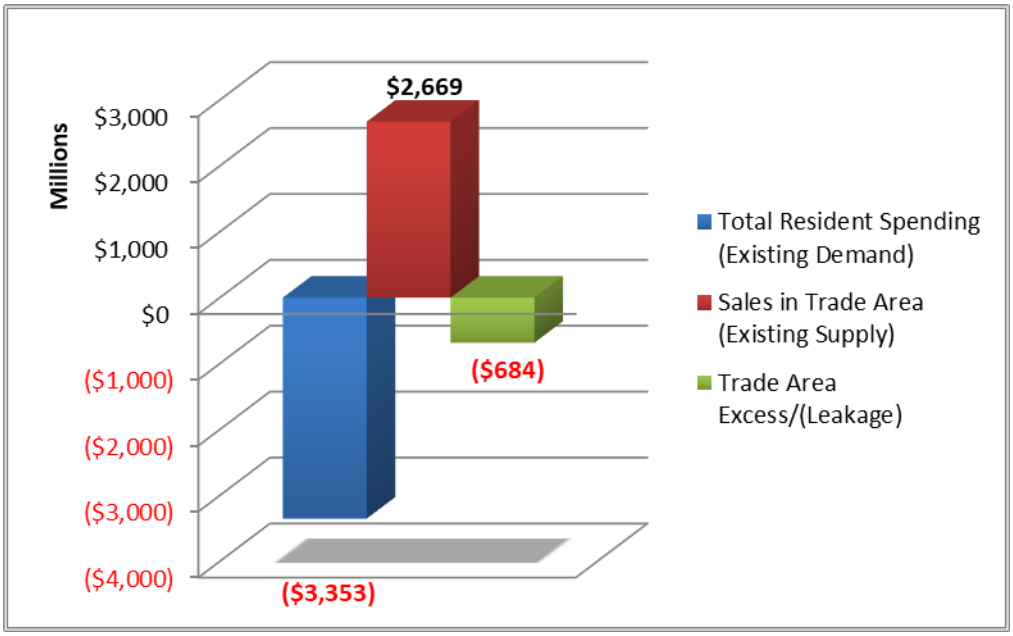
D. The overall shortfall in retail supply suggests that there will be a substantial overall need for additional retail square footage under the Future Conditions scenario. Please refer to **Figures ES-5** and **ES-6** for additional details.

FIGURE ES-5
RETAIL SUMMARY
FUTURE PRIMARY TRADE AREA
(WITH ALL PROPOSED PROJECTS)



Source: Nielsen Company, Solano County, Census Bureau.

FIGURE ES-6
RETAIL SUMMARY
FUTURE COMBINED PRIMARY & SECONDARY TRADE AREAS
(WITH ALL PROPOSED PROJECTS)



Source: Nielsen Company, Solano County, Census Bureau.

Retail Vacancy Rates

The retail vacancy rate in an area is also an important indicator of current market conditions, as well as the area's susceptibility to Urban Decay. A retail vacancy rate of 5% is a normal level expected in a healthy real estate market. In order to approximate the vacancy rate for the Project, DTA evaluated vacancy rate statistics for a variety of retail segment categorizations, including commercial mixed-use retail, retail exclusive, and shopping center for the City of Vallejo. Given that the Costco site offers a variety of non-retail commercial uses such as optometry offices, gas service stations, tire centers, and pharmacies, DTA has identified commercial mixed-use retail as the most appropriate comparative category for the purposes of this analysis.

The vacancy rate for commercial mixed-use retail properties is currently only 4.8 percent, down from 6.6 percent in 2018, as shown in **Figure ES-7** and **Table ES-2** below, with an overall downward trend since 2014. The new Costco will be located in the Northgate area of the City and immediately surrounded by other residential and commercial development. Furthermore, as the real estate market becomes more competitive within the Bay Area and the draw toward the East Bay and City of Vallejo rises due to relatively affordable housing prices, increasing retail demand is likely to further reduce any likelihood of Urban Decay related to the construction of the Project.

FIGURE ES-7
VACANCY RATES – COMMERCIAL MIXED-USE
CITY OF VALLEJO

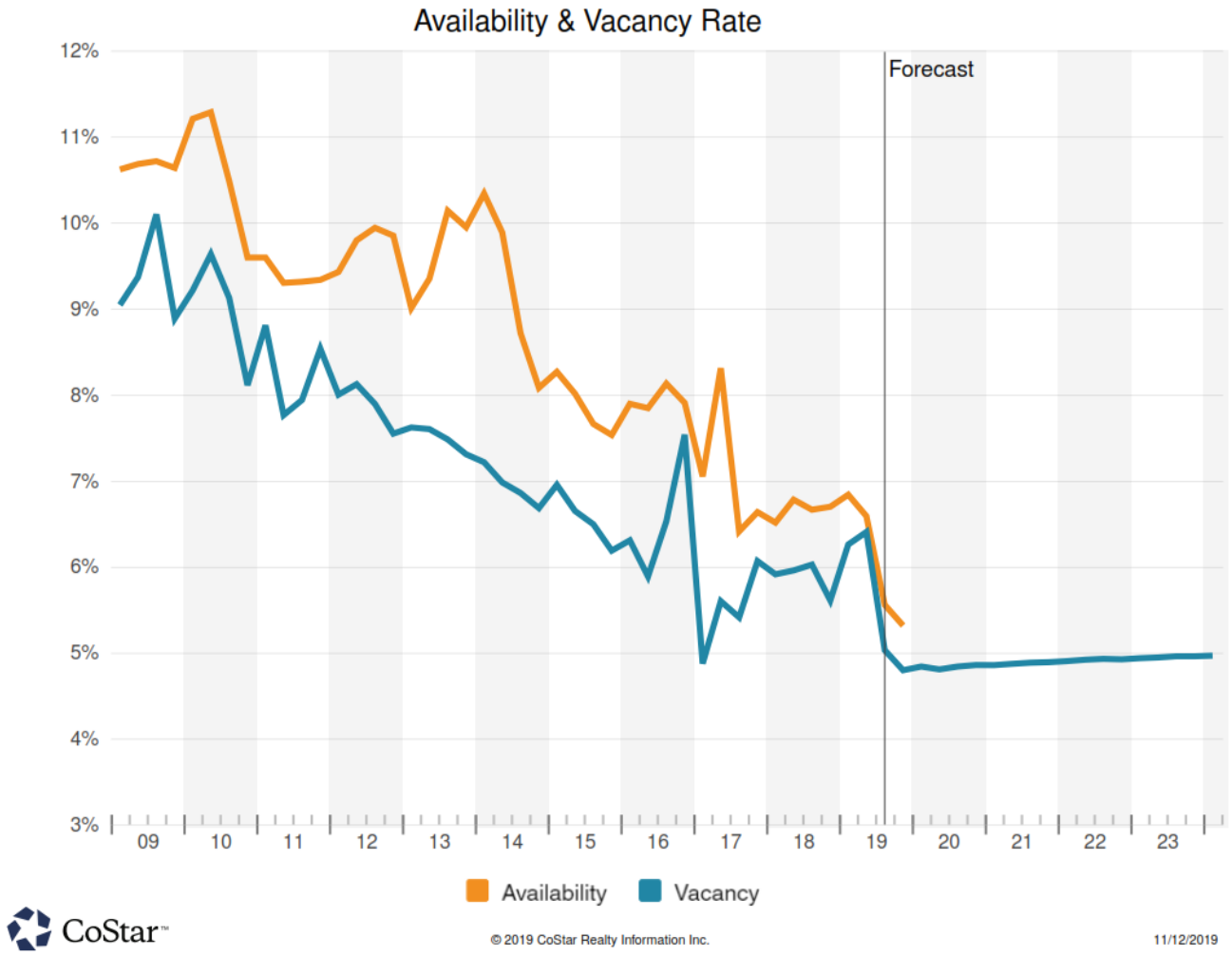


TABLE ES-2
2019 VACANCY STATISTICS WITHIN THE CITY OF VALLEJO

TYPE	VACANCY RATE	VACANT SQUARE FEET	AVAILABILITY RATE	AVAILABLE SQUARE FEET
COMMERCIAL MIXED-USE	4.80%	306,000	5.30%	341,000

Source: CoStar

SECTION 1 INTRODUCTION

A. OVERVIEW

David Taussig & Associates, Inc. ("DTA") has prepared this Economic Impact Analysis ("EIA") in order to analyze the potential short- and long-term economic impacts of the Fairview at Northgate project (the "Project") under the framework provided by Section 16.76.040 of the City of Vallejo (the "City") Municipal Code ("The Code"). Additionally, DTA was tasked with examining the local and regional markets for existing and proposed stores that provide retail uses and food and beverage retail uses to determine whether there is potential demand for these uses at the Project site. In completing the analysis, DTA evaluated the possibility that the development of these uses on the Project site might cause the saturation and/or decay, or "Urban Decay," of existing and proposed retail development within the City and the County of Solano ("County"), including the reuse of an existing site that would be closed as a consequence of the Project.

Urban Decay is an environmental, economic, and social problem that may be caused by the abandonment of existing retail development that results from highly competitive new retail development. This abandonment can cause loss of close and convenient shopping and lead to higher vacancy rates and deferred maintenance of existing retail square footage by its owners, who no longer receive the level of rental income necessary to maintain their properties. This in turn can lead to lower property values, higher crime rates, a damaged business environment, increased traffic congestion and gasoline consumption, and a continuing cycle of events that can cause a variety of economic and social problems for a municipality. While it may take years for this type of deterioration to occur, once it starts, it can be difficult to stop.

The enclosed analysis considers the impacts of the Project on existing retail buildings throughout the Project's Primary and Secondary Trade Areas (the "Trade Areas"), as illustrated on Map 1 herein, where the vast majority of the Project's retail patrons will reside. The analysis also considers the issue of existing retail sales leakage (the degree to which residents of the City and its trade areas are currently forced to shop outside of their immediate neighborhoods due to a lack of existing local shopping alternatives), and, if such leakage exists, the positive impacts of the Project in keeping these residents shopping near their homes, which include minimizing traffic congestion and gasoline consumption. The fact that a stronger retail sector will provide opportunities for entertainment, restaurants, hotels, and motels to locate within the vicinity of the Project would further enhance the economic benefits of reducing retail leakage.

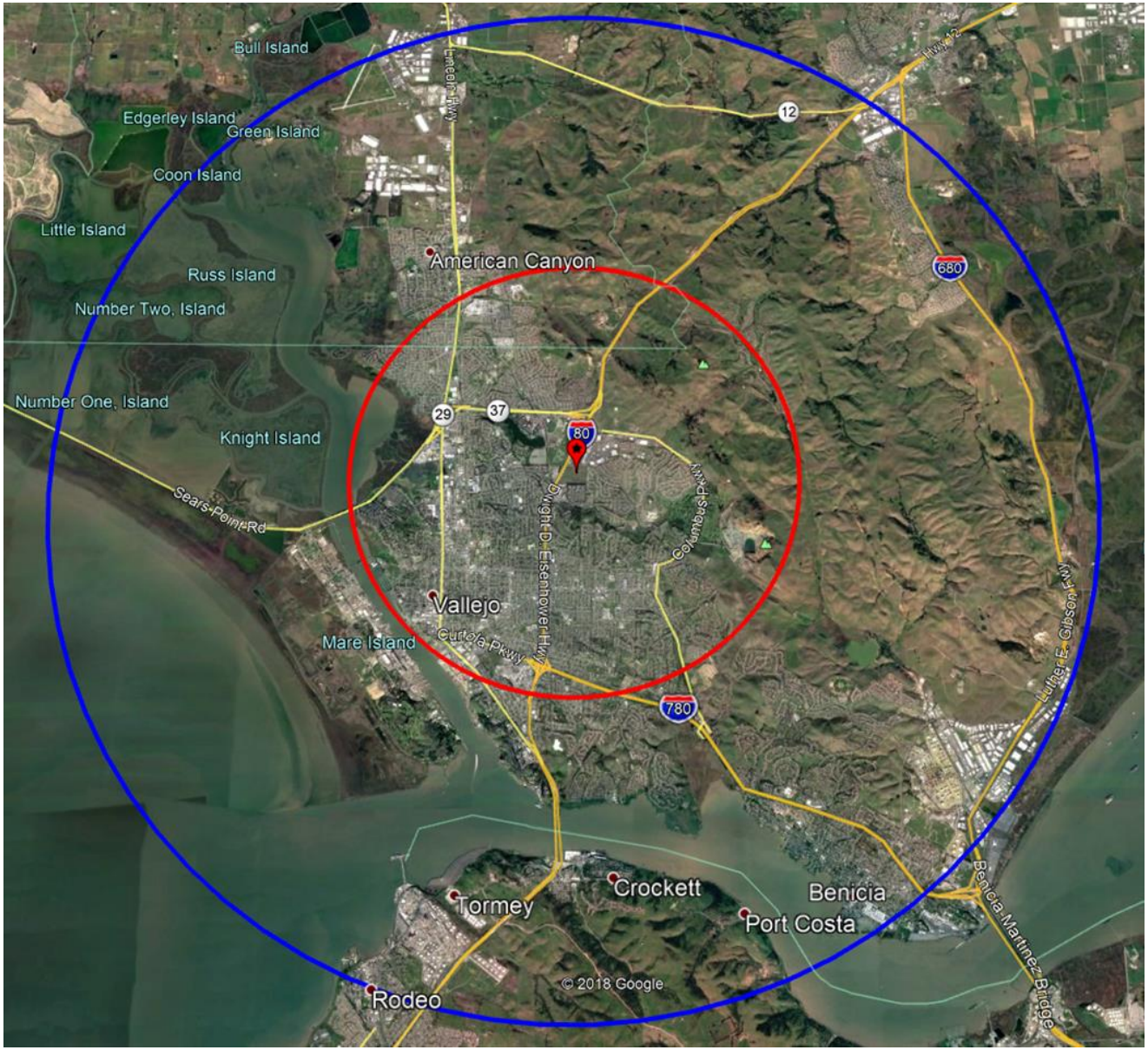
As discussed more specifically in Section 2 of this EIA, trade areas are the geographic areas constituting the market supply and market demand that will ultimately determine the economic viability of the Project, as they provide the majority of the steady customers necessary to support a retail project.

This EIA evaluates two indicators of the economic health of the Project's Trade Areas. The first indicator compares the current demand for retail goods and services in the Trade Areas with the current supply of retail development (the "Existing Conditions"), as well as the projected future demand for retail goods and services with the future supply of retail development (the "Future Conditions"). Existing Conditions are based on data from 2019, the most recent annualized data available. Future Conditions are assumed to reflect 2024, because while the proposed Project is

expected to open by 2022 for the retail component and 2023 for the residential component, stabilized sales are not expected to occur within the first two years of store operations, a conservative assumption, but rather are expected in year 2024. Based on data provided by the Nielsen Company and the Association of Bay Area Governments ("ABAG"), DTA assumes that between 2019 and 2024 the population in the Trade Areas will grow, and this will translate into greater demand for retail in 2024. Comparing retail demand and supply is a key indicator of the likelihood of a community experiencing Urban Decay because the higher the retail demand as compared to the supply, the greater the need for additional retail development and the less the likelihood that existing retail development will be negatively impacted as a result of a retail project.

The second indicator of the propensity for an area to experience Urban Decay is recent trends in retail vacancy rates within the greater metropolitan area. In situations where a significant excess of retail space already exists, as reflected in a high vacancy rate, the likelihood of Urban Decay resulting from a project would increase.

MAP 1
PRIMARY (3 MILE) AND SECONDARY (7 MILE) RETAIL TRADE AREAS



B. PROJECT DESCRIPTION

The proposed Project is located in the City of Vallejo within the County of Solano and spans approximately 51.3 acres. It is comprised of approximately 179,688 square feet of retail/commercial space (including the proposed Costco, five retail pads, and gasoline service station accommodating up to 30 fueling dispensers and a related kiosk) within 21.8 acres, a residential component of 178 single family units within 23.8 acres, and 5.7 acres of open space. Notably, the new Costco is replacing a Costco less than one mile from the Project site; thus, the net effect of the replacement is only an additional 26,701 square feet. The Project site is located on a vacant, undeveloped lot, and is bounded to the west by the Admiral Callaghan Lane right-of-way, to the north by the Turner Parkway right-of-way, to the south by a car dealership, residential condominiums, and apartments, and to the east by single family homes. The I-80 freeway is immediately adjacent to the west of Admiral Callaghan Lane. Please refer to **Map 1** and **Appendix B** for further information on the elements and location of the Project.

TABLE 1

APPROXIMATE LAND USE ASSUMPTIONS

LAND USE	ACREAGE
Retail/Commercial	21.8
Residential	23.8
Open Space	5.7

C. METHODOLOGY

Determination of Trade Areas

The initial step involved in analyzing the Project's potential to cause Urban Decay in the City and its environs requires an evaluation of the Project's Primary and Secondary Trade Areas to gauge the potential patronage and competitive uses. A Retail Trade Area is defined as a geographic area that contains the elements of demand and supply that will determine the performance of a particular retail store or project. A Retail Trade Area is influenced by a variety of factors, including the location and density of the targeted residential population, the location of key competitors, the relative distance or travel time for each of the above, geographic and psychological barriers, and existing commute and shopping patterns. Retail establishments outside of a given Trade Area are not considered to be at risk of Urban Decay from development within the Trade Area.

The *International Council of Shopping Centers* defines a Primary Trade Area as the area from which 60 to 80 percent of the Project's sales originate. Based on the retail uses within the Project and the location of other retail centers in the area, DTA determined that the identified Primary Trade Area (*see* **Map 1**) would be appropriate for analyzing the majority of the demand generated by the Project for its local-serving neighborhood retail uses. Local-serving retail uses include grocery and drug stores, cleaners, and other retail uses commonly found in neighborhood shopping centers. Customers for these uses tend to shop within 1 to 3 miles of their residence or place of work and are

unlikely to drive long distances to purchase items similar to those that they could purchase closer to home.

A larger 7-mile Secondary Trade Area was also evaluated in the analysis, as it would be expected that a portion of the demand for a retail center of the Project's size would be generated within an area larger than the 3-mile Primary Trade Area. It is important to consider a Secondary Trade Area that encompasses retail development that might be competitively impacted by the Project. The Project is not expected to substantially compete with existing retailers beyond the boundaries of the Secondary Trade Area, as any consumers who reside beyond this radius would have multiple shopping center options to patronize that are located significantly closer to their residence than the Project. Additionally, the total projected sales of the Project represent a small percentage of total retail sales currently occurring beyond the Project's Trade Area boundaries.

Again, **Map 1** delineates the boundaries of the Project's Primary and Secondary Trade Areas, which consist of areas in the City as well as in the surrounding cities.

Specific Methodology

The EIA analyzes the potential short- and long-term economic impacts of the proposed Costco. City Municipal Code Section 16.76.040 is substantially as follows, and requires [notations reference conclusions and findings]:

> *1. A survey of the existing stores, including their current average retail sales, that provide retail sales and food and beverage retail sales within the city and the cities of Benicia and American Canyon, and/or in other retail and food and beverage retail market areas that would be served by the proposed superstore, regardless of whether such stores are within the political boundaries of the city, and that are likely to be economically affected by the proposed superstore.* ***[Page 10, and Exhibits 10 and 11 of Appendix A]***
>
> *2. A survey of the existing, proposed, and/or pending superstores within the affected area.* ***[Pages 11 and 19, and Exhibits 10 and 11 of Appendix A]***
>
> *3. A survey of the number of persons who are employed on either a full-time or a less than full-time basis, and a delineation of each, by the existing stores and an estimate of the number of persons who would be employed on both a full-time or a less than full-time basis, and a delineation of each by the proposed superstore.* ***[Page 10]***
>
> *4. An analysis of the short- and long-term effect the proposed superstore could have on the retail stores specified, which shall include an analysis of the proposed superstore's potential impact on the following within the affected area: retail sales, food and beverage retail sales, store closures, jobs, and any food and beverage retail and/or retail stores that could potentially close, including an analysis of the potential for using the closed site(s) for similar or other uses. Such analysis shall also include a survey of established compensation and wages standards in comparable stores operated by the applicant compared to those established in the affected area.* ***[Economic Impact Discussion, Pages 13 through 26]***

5. An analysis of both the short- and the long-term potential effects of the proposed superstore on retail and food and beverage retail sales in the affected area, including a conclusion as to whether the proposed superstore would cause a net increase or decrease in retail and food and beverage retail sales in the affected area. ***[Economic Impact Discussion, Pages 13 through 26]***

6. A fiscal impact analysis, which shall include, but not be limited to, an analysis of the projected sales tax revenues for the proposed superstore and an analysis of both the short- and the long-term effects of the proposed superstore on net sales tax revenues generated by existing retail and food and beverage retail stores in the city. ***[Fiscal Impact Analysis, Provided Separately in Phase II]***

7. An analysis of the proposed superstore's potential short- and long-term net effect on the ability of consumers in the affected area to obtain a variety of food and beverage and retail products in light of the analysis concerning potential closure of retail and/or food and beverage retail stores within the affected area ***Pages 13 through 26]***

8. An analysis of the average savings a typical consumer might expect, if any, by the approval of the proposed superstore. ***[Page 26]***

In addition to requiring specific metrics (#1 and #3), Section 16.76.040 is also very concerned with Urban Decay (#4, #5, and #7). Urban Decay is an environmental, economic, and social problem that may be caused by the abandonment of existing retail development that results from highly competitive new retail development. This abandonment can cause loss of close and convenient shopping and lead to higher vacancy rates and deferred maintenance of existing retail square footage by its owners, who no longer receive the level of rental income necessary to maintain their properties. This in turn can lead to lower property values, higher crime rates, a damaged business environment, increased traffic congestion and gasoline consumption, and a continuing cycle of events that can cause a variety of economic and social problems for a municipality. While it may take years for this type of deterioration to occur, once it starts, it can be difficult to stop.

To evaluate the potential for the Project to cause Urban Decay due to closures of existing retail stores, DTA evaluated the supply and demand for each specific retail category (e.g., general merchandise, food stores, etc.) in each of the geographic areas that will be impacted by the Project, otherwise known as the Project's Trade Areas. To determine existing retail conditions, the most recent annualized data available for the City (2019), herein referenced as the "Existing Conditions," was obtained from the Nielsen Company. The EIA conservatively assumed that the proposed Project's retail and residential components will open by 2022 and 2023, respectively, but that stabilized sales within the Project will first occur in 2024.

To determine the likelihood of Urban Decay occurring within the Trade Areas, the following methodology was applied in this analysis:

1. The boundaries of the Primary and Secondary Trade Areas that would support the Project were identified;

2. Retail sales expected within the Project were defined;

3. Current consumer demand generated by existing residents in each of the Trade Areas was determined;

4. Current retail sales in each of the Trade Areas were estimated;

5. The amount of existing retail leakage (local demand greater than local supply) or retail surplus (local supply greater than local demand) in each of the Trade Areas was calculated;

6. Projected future retail demand versus retail supply in 2024, under Future Conditions assuming completion of the Project for each of the Trade Areas, was calculated to determine if future retail leakage or retail supply surplus is expected to occur;

7. Other planned retail developments in the Trade Areas were identified where possible – and the Future Conditions retail supply was increased to include additional sales generated by the successful completion of these other retail developments – to determine the impacts of this additional retail supply on the retail leakage or supply surplus calculated under Task 6, above;

8. Current retail vacancy rates in the vicinity of the Project were determined; and

9. The extent to which the Project is likely to contribute to Urban Decay in the Trade Areas, based on the findings under Tasks 1-8, was assessed. Evidence of retail leakage in the future despite the construction of the Project would suggest little potential for Urban Decay. Conversely, evidence of an oversupply of retail space would be a reason for greater concern regarding the potential for Urban Decay. **Based on our findings, DTA sees no evidence that would indicate Urban Decay occurring in the area immediately surrounding the Project, as further discussed in this analysis.**

D. LIMITATIONS

The economic impact model utilized for purposes of analyzing the retail supply and demand scenarios associated with the Project is based on both (i) the current Project Site Plan provided to DTA by the Client, and (ii) Trade Area market supply data provided to DTA by the Nielsen Company. The sources of information and basis of the estimates calculated in the economic impact analysis are stated herein. While DTA is confident that the sources of information are reliable, some information may be dated and no longer accurate for Fiscal Year 2018-2019. Furthermore, since the analyses contained herein are based on estimates and assumptions that are inherently subject to uncertainty and variation depending on evolving events, DTA cannot represent that such estimates will definitely be achieved. Some assumptions inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, the actual results achieved may vary from those projections stated throughout this economic impact analysis.

SECTION 2 URBAN DECAY

A. KEY INDICATORS

The retail demand for various product types was based on estimates provided by the Nielsen Company for each of the Trade Areas. These demand figures were derived from the Consumer Expenditure Survey data published by the U.S. Bureau of Labor Statistics. **Table 2** below summarizes the resulting demand estimates in the Primary and Secondary Trade Areas of the Project. The total 2019 retail demand (the Existing Conditions) generated by residents of the Primary Area for applicable retail categories was estimated to be $1.7 billion, while the combined retail demand for residents of both the Primary and Secondary Areas is $3.3 billion.

TABLE 2

EXISTING RETAIL DEMAND

PRIMARY & SECONDARY TRADE AREAS

JURISDICTION	PRIMARY TRADE AREA DEMAND	COMBINED PRIMARY & SECONDARY TRADE AREA DEMAND
FOOD	$231,501,607	$428,657,897
GENERAL MERCHANDISE	$300,104,714	$559,452,736
APPAREL	$70,376,520	$135,676,667
EATING AND DRINKING PLACES	$225,766,492	$431,249,339
BUILDING MATERIAL & FARM IMPLEMENTS	$99,425,900	$195,992,737
AUTOMOTIVE	$311,599,734	$610,011,153
OTHER RETAIL	$310,448,333	$600,141,065
HOME FURNISHING AND APPLIANCES	$37,961,513	$74,792,322
SERVICE STATIONS	$144,720,654	$264,120,061
TOTAL	**$1,731,905,467**	**$3,300,093,977**

Source: Nielsen Company, Solano County, Census Bureau.

The level of existing sales for each retail category within the Trade Areas was also provided by the Nielsen Company. **Table 3** summarizes the projected levels of existing retail sales for the Project's Trade Areas. Total sales were estimated at $1.5 billion in the Primary Trade Area, and $2.6 billion in both the Primary and Secondary Trade Areas.

TABLE 3

EXISTING RETAIL SUPPLY

PRIMARY & SECONDARY TRADE AREA

JURISDICTION	PRIMARY TRADE AREA SUPPLY	COMBINED PRIMARY & SECONDARY TRADE AREA SUPPLY
FOOD	$284,404,493	$481,721,997
GENERAL MERCHANDISE	$243,731,258	$391,671,520
APPAREL	$34,327,950	$56,401,820
EATING AND DRINKING PLACES	$177,332,841	$317,153,275
BUILDING MATERIAL & FARM IMPLEMENTS	$79,005,885	$153,579,804
AUTOMOTIVE	$434,296,924	$593,819,248
OTHER RETAIL	$114,829,376	$329,281,084
HOME FURNISHING AND APPLIANCES	$25,074,263	$56,148,654
SERVICE STATIONS	$116,193,517	$229,338,915
TOTAL	**$1,509,196,507**	**$2,609,116,317**

Source: Nielsen Company, Solano County, Census Bureau.

Retail Vacancy Rates

The retail vacancy rate in an area is also an important indicator of current market conditions, as well as the area's susceptibility to Urban Decay. A retail vacancy rate of 5 percent is considered to be a normal level expected in a healthy real estate market. **Figure 1** below specifically shows commercial mixed-use vacancy trends within the City of Vallejo over the last ten (10) years. **Table 4** below provides an overview of the vacancy rates for commercial mixed-use properties. In order to approximate the vacancy rate for the Project, DTA evaluated vacancy rate statistics for a variety of retail segment categorizations, including commercial mixed-use retail, retail exclusive, and shopping center for the City of Vallejo. Given that the Costco site offers a variety of non-retail commercial uses such as optometry offices, gas service stations, tire centers, and pharmacies, DTA has identified commercial mixed-use retail as the most appropriate comparative category for the purposes of this analysis.

The vacancy rate for commercial mixed-use retail properties is currently only 4.8 percent, down from 6.6 percent in 2018, with an overall downward trend since 2014. The new Costco will be located in the Northgate area of the City and immediately surrounded by other residential and commercial development. Furthermore, as the real estate market becomes more competitive within the Bay Area and the draw toward the East Bay and City of Vallejo rises due to relatively affordable housing prices, increasing retail demand is likely to further reduce any likelihood of Urban Decay related to the construction of the Project. According to Zillow market data, median home values in Vallejo have

increased 12.4 percent over the past two years and are anticipated to rise by an additional 1.1 percent by September 2020.

FIGURE 1
VACANCY RATES – COMMERCIAL MIXED-USE
CITY OF VALLEJO

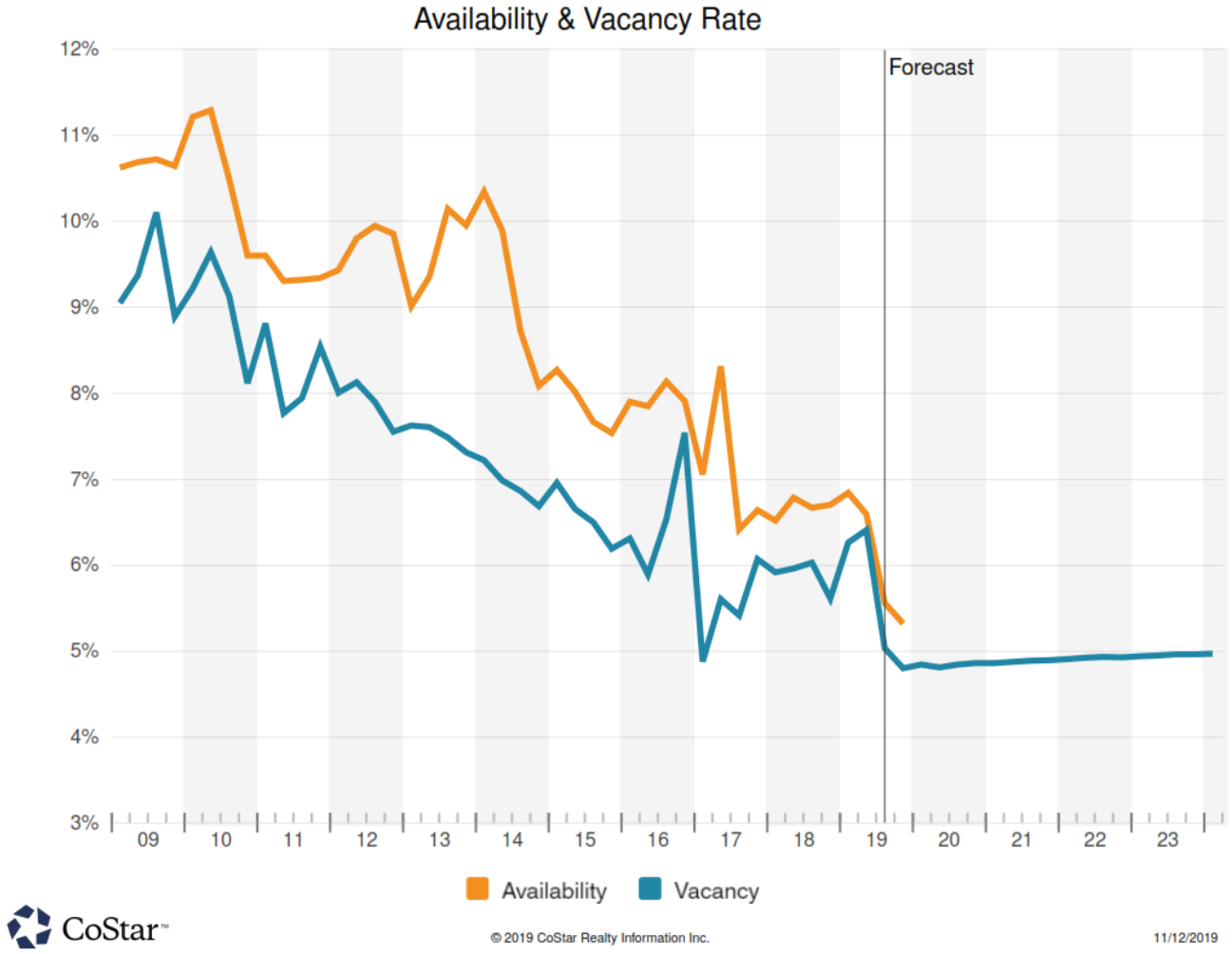


TABLE 4

2019 VACANCY STATISTICS WITHIN THE CITY OF VALLEJO

TYPE	VACANCY RATE	VACANT SQUARE FEET	AVAILABILITY RATE	AVAILABLE SQUARE FEET
COMMERCIAL MIXED-USE	4.80%	306,000	5.30%	341,000

Source: CoStar

B. EMPLOYMENT INDICATORS

Existing Retail Stores

DTA surveyed and examined existing retail stores within the affected area that provide similar food and beverage retail sales – most notably, the Wal-Mart and Target locations within the Primary Trade Area. The Wal-Mart averages approximately $400 in sales per square foot and nets average annual retail sales of approximately $40.0 million while the Target averages approximately $295 per square foot and nets average annual retail sales of $37.4 million. Costco currently employs approximately 163,000 full and part-time employees within the U.S. over 528 locations, or approximately 309 employees per location. In comparison, Wal-Mart employs approximately 1.5 million full and part-time associates within the U.S. at over 4,761 locations (including super centers, discount stores, and neighborhood markets), or approximately 315 employees per location, whereas Target employs 345,000 full and part-time employees within the U.S. over 1,846 locations, or approximately 187 employees per location. These statistics are reflected in **Table 5** below.

TABLE 5

STATISTICS OF STORES WITHIN AFFECTED AREA

EXISTING RETAIL STORES	AVERAGE SALES PER SQUARE FOOT	AVERAGE ANNUAL SALES PER STORE	NUMBER OF U.S. EMPLOYEES	NUMBER OF U.S. STORES	AVERAGE NUMBER OF EMPLOYEES PER STORE
COSTCO	$1,098	$154,865,000	163,000	528	309
WAL-MART	$400	$39,924,000	1,500,000	4,761	315
TARGET	$295	$37,361,000	345,000	1,846	187

Source: eMarketer and Company Annual Reports

With the 26,701 additional square feet in retail space created by the Project, the new Costco has capacity to support 330 employees upon completion, as confirmed by the Project Proponent and Costco management. This increase in employees could have further indirect and induced impacts, such as additional employees and sales tax receipts within the Primary Trade Area.

Other existing stores that provide similar retail sales to that of Costco and serve as retail anchors within the Primary Trade Area include Ross, Safeway, CVS, Lowe's, and Big 5 Sporting Goods, among others. These properties and those in the surrounding areas have exhibited strong sales and high occupancy rates. Please see **Table 6** below for a list of properties with footprints greater than 10,000 square feet.

TABLE 6

OTHER EXISTING RETAIL GREATER THAN 10,000 SQ. FT.

BUSINESS NAME	SQ. FT.
Lowe's	185,142
Target	106,169
Kohl's	97,732
Home Depot	95,443
Food 4 Less	56,814
Foodmaxx	52,431
Toyota	51,930
Century Theatres	50,090
Best Buy	44,925
Safeway	31,790
Momentum Chrysler/Dodge/Jeep/Ram	27,500
Pep Boys	22,268
Smart & Final	20,563
CVS	16,500
Petco	12,000
Sleep Train Mattress Center	10,000
Big 5 Sporting Goods	10,000

Source: CoStar

Wage Standards

Among large retailers, Costco has maintained a reputation for its commitment to paying employees a living wage. As of June 11, 2018, Costco's starting wage for its U.S. employees is $14.50 an hour, and among its total number of U.S. employees, the average hourly wage is $22.50 an hour. Costco's employees also have access to health insurance benefits, for which the company covers 90 percent of the annual costs. Approximately 10 percent of Costco's workforce are union represented, and Costco negotiates a new agreement with the union every three (3) years with prescribed annual wage increases. In comparison, Walmart's entry level wage is $11 an hour and Target's entry level wage is $12 an hour, and neither have union-organized stores. Costco also has a policy of maintaining a ratio of at least 50 percent full-time employees at each store location and prefers employing full-time employees over part-time employees.

Pipeline Projects

Additionally, the Primary Trade Area has two small-scale food service additions – a 4,150-square-foot Panera Bread and a 3,867-square-foot In-N-Out Burger, which opened in November 2018 and January 2019, respectively. Both are in the immediate vicinity of the Project. There are currently no other proposed or pending superstores in the City of Vallejo.

DTA also surveyed the Cities of American Canyon and Benicia and learned that there are no proposed and/or pending superstores within those communities.

C. ECONOMIC IMPACT ANALYSIS

Methodology

In order to determine the potential impacts of the Project on existing retail development within the Primary and Secondary Trade Areas, it was necessary to first estimate the current need for additional retail space in these areas. The current need was evaluated based on the existing demand for the specific types of retail uses that are anticipated within the Project, based on the estimated demand for these retail uses on the part of current residents in the Project's Primary and Secondary Trade Areas. This demand was then compared with actual existing sales within the Trade Areas for each type of retail use. Following this comparison, an additional analysis was performed that compared the anticipated demand of the residents in each of the Project's Trade Areas in 2024 under the Future Conditions scenario, versus the levels of retail sales expected in the Trade Areas that year based on the supply of retail uses in the areas, including the additional sales expected to be generated by the Project. An effort was then made to prepare a third comparison to consider the impact of the Project when analyzed with the supply of retail uses to be included in all other currently proposed local retail projects within the Trade Areas, and an overall retail supply was calculated and compared to expected demand for retail services.

Determination of Trade Areas

As noted previously, the initial step involved in analyzing the Project's potential to cause Urban Decay in the City and its environs requires an evaluation of the Project's Primary and Secondary Trade Areas to gauge the potential patronage and competitive uses. Trade areas are the geographic areas constituting the market supply and market demand that will ultimately determine the economic viability of the Project, as they provide the majority of the steady customers necessary to support a retail project. The boundaries of trade areas are determined by a number of factors, including the type of retail project, accessibility for local residents, physical barriers, location of competing facilities, and limitations of driving time and distance. Within a retail center's trade area, customers closest to the site will affect the center most strongly, with customer influence diminishing gradually as the distance increases away from the center.

Determination of Existing Retail Demand within the Trade Areas

In order to evaluate the existing demand within the Trade Areas for each type of retail use expected in the Project, as well as the current sales levels experienced within these Trade Areas, DTA relied primarily on data provided by the Nielsen Company.

In looking at the impact of the Project on the retail market, the following assumptions were made:

(1) The Project residents will generate new demand for retail;

(2) The purchasing power of existing residents within the Trade Areas will remain at existing levels; and

(3) The population in the Trade Areas will increase from existing levels, and this increase will create a greater demand for retail.

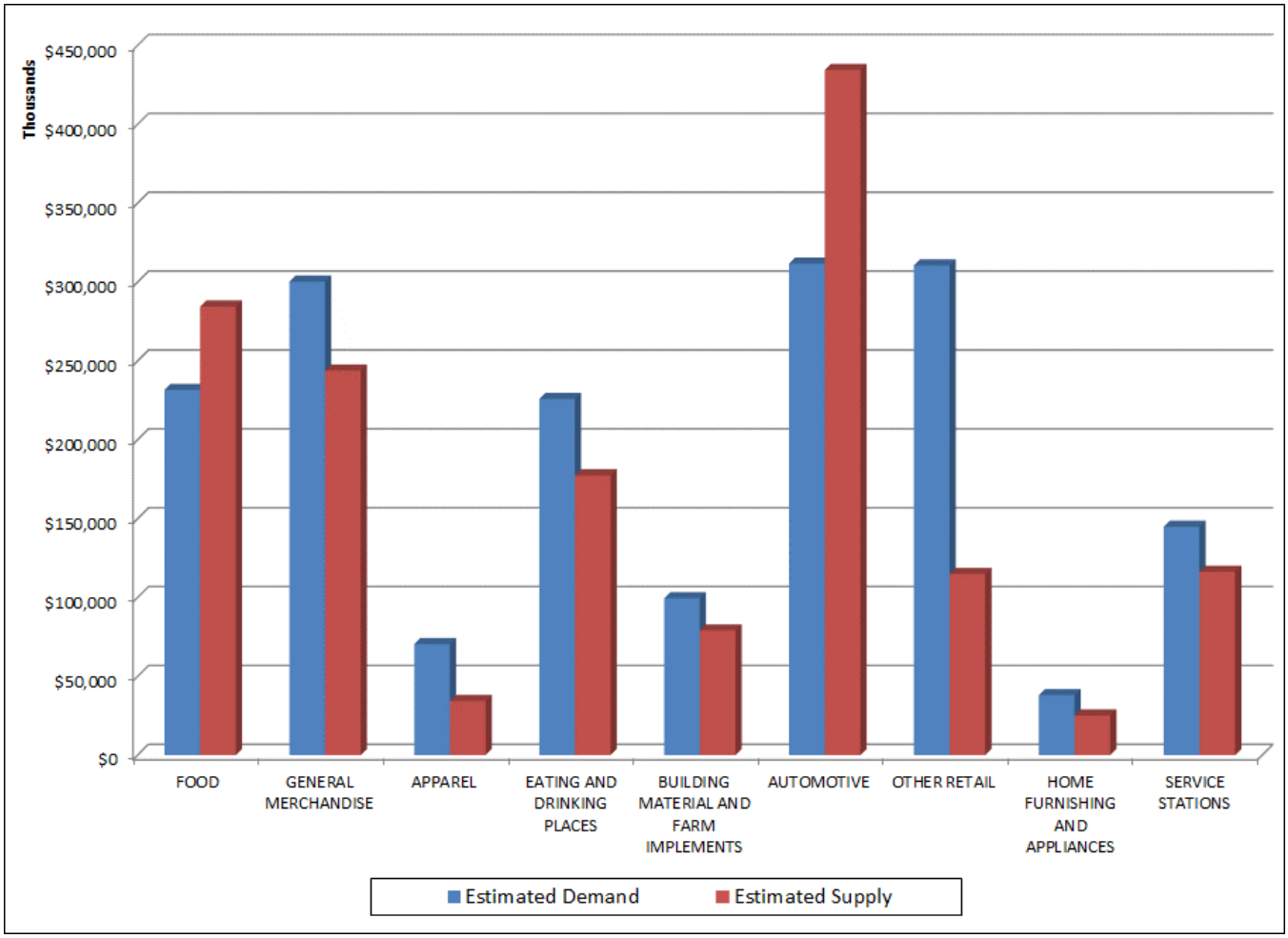
Current Primary Trade Area Surplus/Leakage Analysis

As reflected below in **Figure 2** and **Table 7**, the current annual retail demand of $1.7 billion in the Primary Trade Area exceeds the $1.5 billion in sales by $222.7 million each year. This indicates that overall, there is a current leakage of approximately 12.9 percent of the Primary Trade Area resident expenditures to retail stores outside of the area. The leakage appears to be occurring in most retail categories and is most severe within Other Retail ($195.6 million), General Merchandise ($56.4 million), Eating and Drinking Places ($48.4 million), and Apparel ($36.0 million). To a lesser extent, Service Stations ($28.5 million), Building Material and Farm Implements ($20.4 million), and Home Furnishing and Appliances ($12.9 million) are also categories that fail to fully capture potential spending. This data indicates that current retail businesses within the Primary Trade Area are failing to capture all the possible retail expenditures of their population. Thus, households residing within this area must travel elsewhere in order to meet their current retail needs as the vast majority of retail categories in the Primary Trade Area are underserved.

FIGURE 2

EXISTING RETAIL TRADE BALANCE

PRIMARY TRADE AREA



Source: Nielsen Company, Solano County, Census Bureau.

TABLE 7

EXISTING SURPLUS/LEAKAGE

PRIMARY RETAIL TRADE AREA

JURISDICTION	PRIMARY TRADE AREA DEMAND	PRIMARY TRADE AREA SUPPLY	EXCESS/ (LEAKAGE)
FOOD	$231,501,607	$284,404,493	$52,902,886
GENERAL MERCHANDISE	$300,104,714	$243,731,258	($56,373,456)
APPAREL	$70,376,520	$34,327,950	($36,048,570)
EATING AND DRINKING PLACES	$225,766,492	$177,332,841	($48,433,651)
BUILDING MATERIAL & FARM IMPLEMENTS	$99,425,900	$79,005,885	($20,420,015)
AUTOMOTIVE	$311,599,734	$434,296,924	$122,697,190
OTHER RETAIL	$310,448,333	$114,829,376	($195,618,957)
HOME FURNISHING AND APPLIANCES	$37,961,513	$25,074,263	($12,887,250)
SERVICE STATIONS	$144,720,654	$116,193,517	($28,527,137)
TOTAL	**$1,731,905,467**	**$1,509,196,507**	**($222,708,960)**

Source: Nielsen Company, Solano County, Census Bureau.

Current Combined Primary and Secondary Trade Area Surplus/Leakage Analysis

Combining the Primary and Secondary Trade Areas also generates an overall existing leakage of retail demand, as illustrated in **Figure 3** and **Table 8**, below. The current annual retail demand in the Primary and Secondary Trade Areas is estimated to be approximately $3.3 billion in total retail goods per year. This compares to a current annual retail supply estimate of $2.6 billion, which indicates an overall leakage of retail expenditures in the amount of $691.0 million per year within the Primary and Secondary Trade Areas. The leakage appears to be occurring in most of the retail categories and is most severe within Other Retail ($270.9 million), General Merchandise ($167.8 million), Eating and Drinking Places ($114.1 million), and Apparel ($79.3 million). This data indicates that current retail businesses within the combined Primary and Secondary Trade Areas are also failing to capture all the possible retail expenditures of their population, as was the case in the Primary Trade Area. Thus, households residing within this combined area must travel elsewhere in order to meet their current retail needs as nearly every retail category in the Trade Areas is underserved.

Specifically, with respect to food and beverage establishments, there is a de minimis surplus of $4.5 million in the Primary Trade Area and a shortfall of $61 million in the combined Primary and Secondary Trade Areas. Costco's business operations include selling groceries, which falls under the Food categorization, as well as running a limited-service restaurant/snack bar, which falls under the Eating and Drinking categorization. As such, for the purpose of this analysis, DTA has combined the Food and Eating and Drinking categories to better reflect the supply this Project will contribute to these related categories. When solely examining the Food category, there is oversupply of $52.9

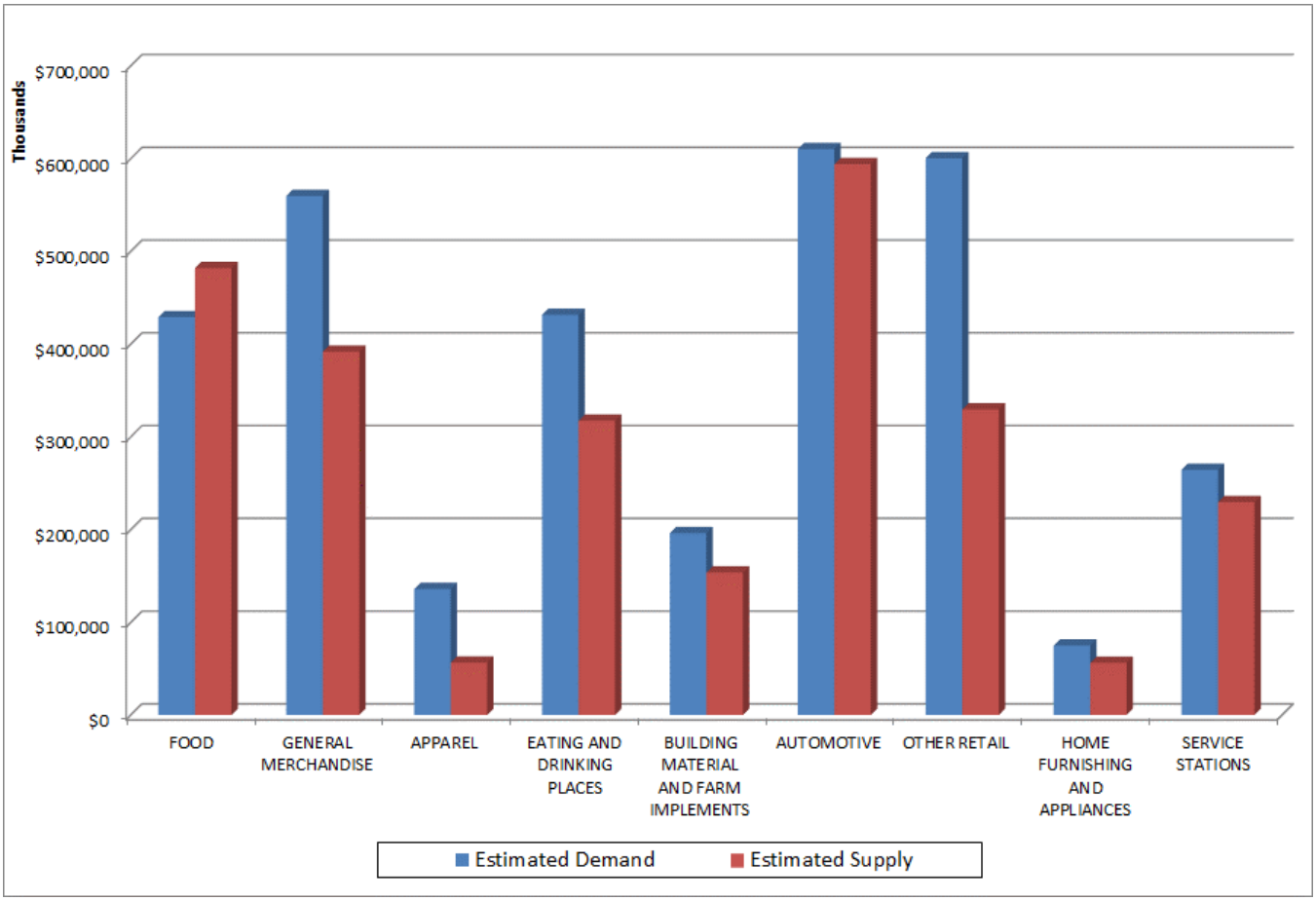
million in the Primary Trade Area, however given the fact that the Project is merely the relocation and expansion of an existing Costco, and only half of the additional 26,701 square feet will be used for grocery items, as confirmed by the Proponent, there is no evidence to indicate that the Project would exacerbate the already existing surplus. This analysis also assumes it is unlikely that a big box store would be re-occupied as a restaurant, and there would be no impact on the variety of food services currently offered in the Primary Trade Area. Additionally, the Project would not remove any existing food and beverage and retail services from operation; therefore, the relocation and expansion of the existing Costco would have no effect on the long-term or short-term abilities of consumers to obtain a variety of food and beverage and retail products. The Project is also not expected to compete with other typical grocery store chains, such as the nearby Safeway, because although both stores offer food and beverage items, each location has a different use to the average consumer depending on their needs.

DTA also recognizes the $122.7 million surplus in the Automotive category, however this is likely due to the quantity of motor vehicle dealers within the Primary Trade Area, which inflates and distorts these figures. According to data obtained from the Nielsen Company, new and used car dealerships comprise 87 percent, or $379.4 million, of the $434.3 million total supply in the Automotive category. The majority of dealership revenue is generated from vehicle sales and the vast majority of goods offered by Costco are not similar to those of a car dealership. As previously mentioned, because the Project is merely the relocation and expansion of an existing Costco and approximately 25 percent of the additional 26,701 square feet will be used for non-grocery retail items, as confirmed by the Proponent, there is no evidence to indicate that the Project would exacerbate the already existing surplus or cause Urban Decay and/or market saturation within the Trade Areas. Additionally, dealerships typically serve a sub-regional population, one well in excess of our Primary and Secondary Trade Areas. Overall, the retail sales figures represent a healthy supply/demand equilibrium, which is very unlikely to be upset by the expanded Costco's (additional 26,701 square feet) sales, and any existing surpluses will not be worsened by the Project.

FIGURE 3

EXISTING RETAIL TRADE BALANCE

COMBINED PRIMARY AND SECONDARY TRADE AREA



Source: Nielsen Company, Solano County, Census Bureau.

TABLE 8

EXISTING SURPLUS/LEAKAGE

COMBINED PRIMARY AND SECONDARY RETAIL TRADE AREAS

JURISDICTION	COMBINED PRIMARY & SECONDARY TRADE AREA DEMAND	COMBINED PRIMARY & SECONDARY TRADE AREA SUPPLY	EXCESS/ (LEAKAGE)
FOOD	$428,657,897	$481,721,997	$53,064,100
GENERAL MERCHANDISE	$559,452,736	$391,671,520	($167,781,216)
APPAREL	$135,676,667	$56,401,820	($79,274,847)
EATING AND DRINKING PLACES	$431,249,339	$317,153,275	($114,096,064)
BUILDING MATERIAL & FARM IMPLEMENTS	$195,992,737	$153,579,804	($42,412,933)
AUTOMOTIVE	$610,011,153	$593,819,248	($16,191,905)
OTHER RETAIL	$600,141,065	$329,281,084	($270,859,981)
HOME FURNISHING AND APPLIANCES	$74,792,322	$56,148,654	($18,643,668)
SERVICE STATIONS	$264,120,061	$229,338,915	($34,781,146)
TOTAL	**$3,300,093,977**	**$2,609,116,317**	**($690,977,660)**

Source: Nielsen Company, Solano County, Census Bureau.

D. CUMULATIVE RETAIL IMPACTS OF THE PROJECT

Determination of Retail Demand under Future Conditions within the Trade Areas

Table 9 shows the estimated expenditures on retail goods per year, based on household growth and income growth resulting from the Project. As the number of households and their related household income grows in the City and surrounding jurisdictions (encompassed in the Trade Areas), so do the expenditures on retail goods. DTA does not assume any change in the percentage amount spent on retail goods and services, currently 22.3 percent, per the City of Vallejo Fiscal Year 2018-2019 Adopted Budget.

Using residential household projections from the Nielsen Company as well as development assumptions for the Project, **Table 9** shows that households in the Primary Trade Area are estimated to spend approximately $1.7 billion on retail goods in 2024. Similarly, households in the combined Primary and Secondary Areas are expected to spend approximately $3.3 billion on retail goods.

TABLE 9

RETAIL DEMAND UNDER FUTURE CONDITIONS

PRIMARY & SECONDARY TRADE AREAS

JURISDICTION	EXISTING 2019 DEMAND	FAIRVIEW AT NORTHGATE PROJECT	TOTAL DEMAND IN 2024
	PRIMARY TRADE AREA		
NUMBER OF HOUSEHOLDS	39,852	178	40,030
HOUSEHOLD INCOME	$66,006	$76,519	$76,519
% INCOME SPENT ON RETAIL		22.26%	
TRADE AREA CAPTURE RATE		85%	
PRIMARY TRADE AREA DEMAND	**$1,731,905,467**	**$2,576,640**	**$1,734,482,107**
	COMBINED PRIMARY & SECONDARY TRADE AREA		
NUMBER OF HOUSEHOLDS	68,143	178	68,321
HOUSEHOLD INCOME	$77,437	$89,770	$89,770
% INCOME SPENT ON RETAIL		22.26%	
TRADE AREA CAPTURE RATE		85%	
COMBINED PRIMARY & SECONDARY TRADE AREA DEMAND	**$3,300,093,977**	**$3,022,853**	**$3,303,116,830**

Source: Nielsen Company, Solano County, Census Bureau, and City of Vallejo Fiscal Year 2018-2019 Adopted Budget.

Determination of Retail Supply under Future Conditions within the Trade Areas

The Future Conditions retail supply was estimated from information provided by the Project Proponent and Costco Annual Report. In order to determine the effects of the Project's sales on the Trade Areas, DTA included the Project's projected sales under Future Conditions. Both Trade Area figures include the Project's estimated total annual retail sales (including both Primary and Secondary Trade Area residents). DTA used an average taxable sales per square foot metric to calculate projected future sales, under the assumption that an average retailer would earn an estimated $300 per square foot, based off data provided by the Urban Land Institute, and the average Costco would earn approximately $1,098 per square foot, according to figures provided in the 2017 Costco Annual Report. The total projected supply for the Fairview at Northgate Project is a blended average based off these rates. Table 10 summarizes the Trade Areas' projected Future Conditions supply figures.

TABLE 10

RETAIL SUPPLY UNDER FUTURE CONDITIONS

PRIMARY & SECONDARY TRADE AREAS

JURISDICTION	EXISTING 2019 SUPPLY	RE-TENANTING OF EXISTING SITE	FAIRVIEW AT NORTHGATE PROJECT (TOTAL)	TOTAL SUPPLY IN 2024
	PRIMARY TRADE AREA			
PROJECTED BUILDING SQ. FT.[1]		125,437	54,251	
TAXABLE SALES PER SQ. FT.		$300	$693	
DISPLACED SALES WITHIN TRADE AREA		*20.00%*	*20.00%*	
PRIMARY TRADE AREA SUPPLY	**$1,509,196,507**	**$30,104,880**	**$30,066,158**	**$1,569,367,545**
	COMBINED PRIMARY & SECONDARY TRADE AREA			
PROJECTED BUILDING SQ. FT.		125,437	54,251	
TAXABLE SALES PER SQ. FT.		$300	$693	
DISPLACED SALES WITHIN TRADE AREA		*20.00%*	*20.00%*	
COMBINED PRIMARY & SECONDARY TRADE AREA SUPPLY	**$2,609,116,317**	**$30,104,880**	**$30,066,158**	**$2,669,287,355**

Source: Kimley-Horn & Associates, Inc. and 2017 Costco Annual Report.
[1] Project as modelled is only the additional 54,251 square feet, 26,701 of which is allocated to the the new Costco that is merely replacing an existing store, and 27,550 to additional retail pads.

Projected Future Conditions Primary Trade Area Surplus/Leakage Analysis

As previously indicated, the estimated demand for the Primary Trade Area is expected to remain at $1.7 billion in retail expenditures per year, while the projected supply is only expected to reach a level of approximately $1.5 billion under the Future Conditions scenario. These figures indicate that even with the additional sales generated by the Project, there is still significant leakage of retail sales with a total of $195.2 million in unmet retail demand within the Primary Trade Area. **Table 11** reflects the overall leakage information for each of the Trade Areas.

The overall leakage expected within the Primary Trade Area under the Future Conditions is reflective of the current level of insufficient retail supply. As a result, the future retail demand in the Primary Trade Area is more than sufficient to support the Project without significantly diverting sales from existing merchants. The development of the Project will only serve to benefit the market within the Primary Trade Area and expand on the limited retail shopping opportunities currently available. The significant consumer spending that is still not being met, even after the addition of the Project, in the Primary Trade Area indicates the Project has the potential to operate successfully and not result in Urban Decay.

In the combined Primary and Secondary Trade Areas, the projected excess of consumer demand is approximately $663.9 million per year under the Future Condition.

TABLE 11

RETAIL SURPLUS/LEAKAGE UNDER FUTURE CONDITIONS

PRIMARY & SECONDARY TRADE AREAS

JURISDICTION	TRADE AREA BALANCE 2019	TRADE AREA BALANCE 2024
	PRIMARY TRADE AREA	
PROJECTED DEMAND	$1,731,905,467	$1,734,482,107
PROJECTED SUPPLY	$1,509,196,507	$1,539,262,665
EXCESS/(LEAKAGE)	($222,708,960)	($195,219,442)
	COMBINED PRIMARY & SECONDARY TRADE AREA	
PROJECTED DEMAND	$3,300,093,977	$3,303,116,830
PROJECTED SUPPLY	$2,609,116,317	$2,639,182,475
EXCESS/(LEAKAGE)	($690,977,660)	($663,934,355)

Source: Nielsen Company, Solano County, Census Bureau.

E. CUMULATIVE IMPACTS OF ADDITIONAL PROPOSED FOOD & BEVERAGE PROJECTS

In addition to the Project, there are two small-scale quick-service restaurants in the area that have recently opened – Panera and In-N-Out, which opened in November 2018 and January 2019, respectively. Importantly, as discussed earlier, the Fairview at Northgate project spans approximately 51.3 acres and includes approximately 179,688 square feet of retail/commercial space within 21.8 acres, a residential component of 178 single family units within 23.8 acres, and 5.7 acres of open space. As a result, new residential units will be situated within a quarter mile of shopping, employment, and recreational uses. According to the approved plan, the buildout will provide rich employment and shopping opportunities and services to improve the City's jobs-housing balance.

In order to project the value of retail supply in both the Primary and Secondary Trade Areas, DTA used retail sales data from the Nielsen Company. As new developments come online in the years ahead, the total level of retail development in these areas will increase accordingly and peak in 2024 when all currently planned retail projects are assumed to be fully operational.

Determination of Retail Demand under Future Conditions within the Trade Areas

Table 12 shows the estimated expenditures on retail goods per year, based on household growth and income growth throughout the Trade Areas. As discussed earlier, DTA does not assume any change in the percentage amount spent on retail goods and services, currently 22.3 percent. **Table 12** shows that households in the Primary Trade Area are estimated to spend approximately $1.8 billion on retail goods in 2024. Similarly, households in the combined Primary and Secondary Area are expected to spend approximately $3.4 billion on retail goods.

TABLE 12

RETAIL DEMAND UNDER FUTURE CONDITIONS

PRIMARY AND SECONDARY TRADE AREAS

JURISDICTION	EXISTING 2019 DEMAND	PROJECTED INCREASE BY 2024	FAIRVIEW AT NORTHGATE PROJECT	TOTAL DEMAND IN 2024
	PRIMARY TRADE AREA			
NUMBER OF HOUSEHOLDS	39,852	1,453	178	41,483
HOUSEHOLD INCOME	$66,006	$76,519	$76,519	$76,519
% INCOME SPENT ON RETAIL		*22.26%*	*22.26%*	
TRADE AREA CAPTURE RATE		*85.00%*	*85.00%*	
PRIMARY TRADE AREA DEMAND	**$1,731,905,467**	**$21,032,911**	**$2,576,640**	**$1,755,515,018**
	SECONDARY TRADE AREA			
NUMBER OF HOUSEHOLDS	28,291	1,528	0	29,819
HOUSEHOLD INCOME	$93,539	$102,371	$102,371	$102,371
% INCOME SPENT ON RETAIL		*22.26%*	*22.26%*	
TRADE AREA CAPTURE RATE		*85.00%*	*85.00%*	
SECONDARY TRADE AREA DEMAND	**$1,568,188,510**	**$29,591,385**	**$0**	**$1,597,779,895**
	COMBINED PRIMARY & SECONDARY TRADE AREA			
NUMBER OF HOUSEHOLDS	68,143	2,981	178	71,302
HOUSEHOLD INCOME	$77,437	$89,770	$76,519	$89,770
% INCOME SPENT ON RETAIL		*22.26%*	*22.26%*	
TRADE AREA CAPTURE RATE		*85.00%*	*85.00%*	
COMBINED PRIMARY & SECONDARY TRADE AREA DEMAND	**$3,300,093,977**	**$50,624,295**	**$2,576,640**	**$3,353,294,913**

Source: Applied Geographic Solutions, 2018, City of Vallejo Consumer Expenditures.

Determination of Retail Supply under Future Conditions within the Trade Areas

The Future Conditions retail supply that includes all proposed projects was estimated from information provided by the Nielsen Company. In order to determine the effects of the Project's sales on the Trade Areas, DTA estimated future sales of all proposed projects. **Table 13** summarizes the Trade Areas' projected Future Conditions supply figures.

TABLE 13
RETAIL SUPPLY UNDER FUTURE CONDITIONS
PRIMARY AND SECONDARY TRADE AREAS

JURISDICTION	EXISTING 2019 SUPPLY	RE-TENANTING OF EXISTING SITE	FAIRVIEW AT NORTHGATE PROJECT (TOTAL)	TOTAL SUPPLY IN 2024
	PRIMARY TRADE AREA			
PROJECTED BUILDING SQ. FT.		*125,437*	54,251	
TAXABLE SALES PER SQ. FT.		$300	$693	
DISPLACED SALES WITHIN TRADE AREA		*20.00%*	*20.00%*	
PRIMARY TRADE AREA SUPPLY	**$1,509,196,507**	***$30,104,880***	***$30,066,158***	**$1,569,367,545**
	COMBINED PRIMARY & SECONDARY TRADE AREA			
PROJECTED BUILDING SQ. FT.		125,437	54,251	
TAXABLE SALES PER SQ. FT.		$300	$693	
DISPLACED SALES WITHIN TRADE AREA		*20.00%*	*20.00%*	
COMBINED PRIMARY & SECONDARY TRADE AREA SUPPLY	**$2,609,116,317**	***$30,104,880***	***$30,066,158***	**$2,669,287,355**

Source: City of Vallejo Planning Department and 2017 Costco Annual Report.

Projected Future Conditions Primary Trade Area Surplus/Leakage Analysis

The estimated demand for the Primary Trade Area is expected to increase to $1.8 billion in retail expenditures per year. Including all future proposed projects, the projected supply is only expected to reach a level of approximately $1.6 billion under the Future Conditions. These figures indicate that even with the additional sales generated by the Project and other future projects, there is still significant leakage of retail sales, with a total of $186.1 million in unmet retail demand within the Primary Trade Area. **Table 14** reflects the overall leakage information for each of the Trade Areas.

The overall leakage expected within the Primary Trade Area under the Future Conditions is reflective of the current level of insufficient retail supply. As a result, the future retail demand in the Primary Trade Area is more than sufficient to support the Project without significantly diverting sales from existing merchants. The development of the Project will only serve to benefit the market within the Primary Trade Area and expand on the limited retail shopping opportunities currently available. The significant consumer spending that is still not being met in the Primary Trade Area, even after the addition of the Project, indicates the Project has the potential to operate successfully and not result in Urban Decay.

In the combined Primary and Secondary Trade Areas, the projected excess of consumer demand increases to approximately $684 million per year under the Future Condition.

Any potential for Urban Decay due to the projected surplus in the Food and Automotive categories is limited due to a number of mitigating factors. First, the tenants that actually choose to locate in these planned retail developments will be oriented towards retail areas in which there is a shortage of supply in the combined Primary and Secondary Trade Areas. Second, there is no certainty that future proposed projects within the Trade Areas will actually be constructed by the year 2024. Third, the cumulative supply figures are likely to be overstated due to the application of the same Trade Area to other proposed retail projects. Any possible future retail developments will have their own

Trade Areas, none of which will be exactly coterminous with the Project's Trade Areas. Total retail demand for these other projects will not be entirely derived from the Project's Trade Area populations, as assumed in the conservative approach to this leakage analysis. Fourth, as stated previously, Costco's business operations fall under both the Food and Eating and Drinking categorizations and it is reasonable to combine these categories for the purpose of this analysis to better reflect the supply this Project will provide to these related categories. DTA acknowledges the oversupply of $52.9 million in the Food category, however, given the fact that only half of the additional square feet being added to the new location will be used for grocery items, as confirmed by the Proponent, there is no evidence to indicate that the Project would exacerbate the already existing surplus. Finally, new and used dealerships constitute 87 percent of the total supply in the Automotive category, which inflates the surplus figures. The Project will minimally affect the existing surplus in this category, as ancillary services such as tire and auto centers, gas stations, pharmacies, optical dispensing centers, food courts, and hearing-aid centers make up just 18 percent of Costco's net sales, according to Costco's 2018 Annual Report.

TABLE 14

RETAIL SURPLUS/LEAKAGE UNDER FUTURE CONDITIONS

PRIMARY & SECONDARY TRADE AREAS

JURISDICTION	EXISTING 2019 CONDITION	PROJECTED 2024 CONDITION
	PRIMARY TRADE AREA	
PROJECTED DEMAND	$1,731,905,467	$1,755,515,018
PROJECTED SUPPLY	$1,509,196,507	$1,569,367,545
EXCESS/(LEAKAGE)	($222,708,960)	($186,147,473)
	COMBINED PRIMARY & SECONDARY TRADE AREA	
PROJECTED DEMAND	$3,300,093,977	$3,353,294,913
PROJECTED SUPPLY	$2,609,116,317	$2,669,287,355
EXCESS/(LEAKAGE)	($690,977,660)	($684,007,557)

Source: Nielsen Company, Solano County, Census Bureau.

F. ECONOMIC IMPACT DETERMINATION

The retail leakage analyses in the Trade Areas reflect continued overall excess of retail demand from Trade Area residents, as compared to retail supply. To the extent to which there is sufficient demand to support the proposed retail developments, **there will likely be no negative impacts to market shares of existing businesses. In fact, the proposed retail projects may actually improve the balance between supply and demand in the Project's Trade Areas**. Because of the strong and stable commercial mixed-use retail market in the Northgate area and the excellent regional visibility and access of the site, the existing Costco site will be successfully re-tenanted and will not contribute to the downward spiral of Urban Decay. Notably, the location of the Project on the I-80 Freeway – a significant gateway into the Project and the City – provides regional visibility and immediate access

from Redwood Parkway, Admiral Callahan Lane, and Turner Parkway. According to data provided by CalTrans in 2016, there are as many as 270,000 vehicles per day currently using the I-80 corridor. **Thus, DTA concludes that while the Project and other proposed retail centers will add to the available supply of retail outlets, current and projected strength of the retail demand within the Project's Trade Areas will likely support this supply**. Also, considering the overall leakage illustrated by the current and future retail market analyses, the addition of retail space will provide expanded opportunity for new retailers to enter the market and fulfill unmet consumer demand.

Given that the Project is an expanded Costco and that there are several other competitive retail sites in both Trade Areas, it's unlikely that the Project will provide any additional appreciable "checkout aisle" savings to the typical City consumer beyond what is already provided by the existing Costco. However, the proximity of the Project to housing will minimize traffic congestion and gasoline consumption.

As mentioned previously, DTA evaluated the closure and reuse of the current site upon completion of the Project. The Project Proponent will place a deed restriction on the original site to prevent any "bulk sale merchandisers" or other general merchandise retailers, which rules out any potential issues that may be caused by the addition of retail uses similar to that of Costco. Based off data provided by the Proponent, it is likely that any new retailer will fall under the General Merchandise or Other Retail categories. The existing site provides 125,437 square feet of potential retail space, and at an average taxable rate of $300 per square foot, the re-tenanting of this space would add an estimated $30.1 million to the existing supply, increasing the supply in the General Merchandise category to $421. 8 million with a remaining demand of $137.7 million, and the supply of the Other Retail category to $359.4 million with a remaining demand of $240.8 million. In both scenarios, there would still be significant demand for additional retail in either category, and the re-tenanting of the existing site would provide expanded opportunity for new retailers to enter the market and fulfill this unmet consumer demand.

APPENDIX A

ECONOMIC IMPACT ANALYSIS MODEL

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 1
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
HOUSEHOLD AND INCOME GROWTH ESTIMATES

	HOUSEHOLD GROWTH		MEDIAN INCOME GROWTH	
JURISDICTION	2019 ESTIMATE	2024 PROJECTION	2019 ESTIMATE	2024 PROJECTION
CITY OF VALLEJO	42,723	45,222	$68,692	$79,633
PRIMARY TRADE AREA	39,852	41,483	$66,006	$76,519
PRIMARY & SECONDARY TRADE AREAS	68,143	71,302	$77,437	$89,770

Notes:

Source: Nielsen Company, Solano County, Census Bureau.

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 2
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
PRIMARY TRADE AREA SUPPLY/DEMAND ANALYSIS

	PRIMARY TRADE AREA ANALYSIS (2019)			
RETAIL CATEGORY	TOTAL DEMAND	TOTAL SUPPLY	EXCESS/ (LEAKAGE)	% EXCESS/ (LEAKAGE)
FOOD	$231,501,607	$284,404,493	$52,902,886	22.9%
GENERAL MERCHANDISE	$300,104,714	$243,731,258	($56,373,456)	(18.8%)
APPAREL	$70,376,520	$34,327,950	($36,048,570)	(51.2%)
EATING AND DRINKING PLACES	$225,766,492	$177,332,841	($48,433,651)	(21.5%)
BUILDING MATERIAL AND FARM IMPLEMENTS	$99,425,900	$79,005,885	($20,420,015)	(20.5%)
AUTOMOTIVE	$311,599,734	$434,296,924	$122,697,190	39.4%
OTHER RETAIL	$310,448,333	$114,829,376	($195,618,957)	(63.0%)
HOME FURNISHING AND APPLIANCES	$37,961,513	$25,074,263	($12,887,250)	(33.9%)
SERVICE STATIONS	$144,720,654	$116,193,517	($28,527,137)	(19.7%)
TOTALS	**$1,731,905,467**	**$1,509,196,507**	**($222,708,960)**	(12.9%)

Notes:

Source: Nielsen Company.

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 3
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
PRIMARY AND SECONDARY TRADE AREA SUPPLY/DEMAND ANALYSIS

	PRIMARY AND SECONDARY TRADE AREA ANALYSIS (2019)			
TYPE OF RETAILER	TOTAL DEMAND	TOTAL SUPPLY	EXCESS/ (LEAKAGE)	% EXCESS/ (LEAKAGE)
FOOD	$428,657,897	$481,721,997	$53,064,100	12.4%
GENERAL MERCHANDISE	$559,452,736	$391,671,520	($167,781,216)	(30.0%)
APPAREL	$135,676,667	$56,401,820	($79,274,847)	(58.4%)
EATING AND DRINKING PLACES	$431,249,339	$317,153,275	($114,096,064)	(26.5%)
BUILDING MATERIAL AND FARM IMPLEMENTS	$195,992,737	$153,579,804	($42,412,933)	(21.6%)
AUTOMOTIVE	$610,011,153	$593,819,248	($16,191,905)	(2.7%)
OTHER RETAIL	$600,141,065	$329,281,084	($270,859,981)	(45.1%)
HOME FURNISHING AND APPLIANCES	$74,792,322	$56,148,654	($18,643,668)	(24.9%)
SERVICE STATIONS	$264,120,061	$229,338,915	($34,781,146)	(13.2%)
TOTALS	**$3,300,093,977**	**$2,609,116,317**	**($690,977,660)**	(20.9%)

Notes:

Source: Nielsen Company.

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 4
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
PROJECTED RETAIL DEMAND FROM PROJECT

MARKET AREA	EXISTING 2019 DEMAND	FAIRVIEW AT NORTHGATE	TOTAL DEMAND IN 2024
PRIMARY TRADE AREA			
NUMBER OF HOUSEHOLDS [1]	39,852	*178*	40,030
HOUSEHOLD INCOME [2]	$66,006	*$76,519*	$76,519
% INCOME SPENT ON RETAIL [3]		*22.26%*	
TRADE AREA CAPTURE RATE [4]		*85.00%*	
PRIMARY TRADE AREA DEMAND [5]	$1,731,905,467	*$2,576,640*	$1,734,482,107
COMBINED PRIMARY & SECONDARY TRADE AREA			
NUMBER OF HOUSEHOLDS [1]	68,143	*178*	68,321
HOUSEHOLD INCOME [2]	$77,437	*$89,770*	$89,770
% INCOME SPENT ON RETAIL [3]		*22.26%*	
TRADE AREA CAPTURE RATE		*85.00%*	
COMBINED PRIMARY & SECONDARY TRADE AREA DEMAND [6]	$3,300,093,977	*$3,022,853*	$3,303,116,830

Notes:

[1] Refer to Exhibit 1 for 2019 figures. Project estimates provided by Nielsen Company.

[2] Refer to Exhibit 1 for 2019 figures.

[3] Source: City of Vallejo Fiscal Year 2018-2019 Adopted Budget.

[4] Capture Rate is defined as the percentage of sales occuring within the affected area. Conservatively assumed that the Primary Trade Area will absorb all retail sales resulting from the Project.

[5] Refer to Exhibit 2 for 2019 figures.

[6] Refer to Exhibit 3 for 2019 figures.

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 5
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
PROJECTED RETAIL SUPPLY WITH PROJECT

MARKET AREA	EXISTING 2019 SUPPLY	FAIRVIEW AT NORTHGATE	TOTAL SUPPLY IN 2024
PRIMARY TRADE AREA			
PROJECTED BUILDING SQ. FT. [1]		54,251	
BLENDED TAXABLE SALES PER SQ. FT. [2]		*$693*	
DISPLACED SALES WITHIN TRADE AREA [3]		*20.00%*	
PRIMARY TRADE AREA SUPPLY [4]	$1,509,196,507	*$30,066,158*	$1,539,262,665
COMBINED PRIMARY & SECONDARY TRADE AREA			
PROJECTED BUILDING SQ. FT. [1]		*54,251*	
BLENDED TAXABLE SALES PER SQ. FT. 2		*$693*	
DISPLACED SALES WITHIN TRADE AREA [3]		*20.00%*	
COMBINED PRIMARY & SECONDARY TRADE AREA SUPPLY [5]	$2,609,116,317	*$30,066,158*	$2,639,182,475

Notes:

[1] Source: Kimley-Horn & Associates, Inc.

[2] Based on the average sales and square footage figures provided in the 2017 Costco Annual Report.

[3] Displaced Sales is defined as the percentage of sales occuring outside of the affected area. Estimate, subject to change.

[4] Refer to Exhibit 2 for 2019 figures.

[5] Refer to Exhibit 3 for 2019 figures.

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 6
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
DEMAND AND SUPPLY SUMMARY WITH PROJECT

JURISDICTION	EXISTING 2019 CONDITIONS [1]	PROJECTED 2024 CONDITIONS [2]
PRIMARY TRADE AREA		
PROJECTED DEMAND	$1,731,905,467	$1,734,482,107
PROJECTED SUPPLY	$1,509,196,507	$1,539,262,665
EXCESS/(LEAKAGE)	($222,708,960)	($195,219,442)
COMBINED PRIMARY & SECONDARY TRADE AREA		
PROJECTED DEMAND	$3,300,093,977	$3,303,116,830
PROJECTED SUPPLY	$2,609,116,317	$2,639,182,475
EXCESS/(LEAKAGE)	($690,977,660)	($663,934,355)

Notes:

[1] Refer to Exhibits 2 and 3.

[2] Refer to Exhibits 4 and 5.

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 7
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
PROJECTED RETAIL DEMAND - ALL FUTURE RESIDENTS

MARKET AREA	EXISTING 2019 DEMAND	PROJECTED INCREASE BY 2024	FAIRVIEW AT NORTHGATE	TOTAL DEMAND IN 2024
PRIMARY TRADE AREA				
NUMBER OF HOUSEHOLDS [1]	39,852	*1,453*	*178*	41,483
HOUSEHOLD INCOME [2]	$66,006	*$76,519*	*$76,519*	$76,519
% INCOME SPENT ON RETAIL [3]		*22.26%*	*22.26%*	
TRADE AREA CAPTURE RATE [4]		*85.00%*	*85.00%*	
PRIMARY TRADE AREA DEMAND [5]	$1,731,905,467	*$21,032,911*	*$2,576,640*	$1,755,515,018
SECONDARY TRADE AREA				
NUMBER OF HOUSEHOLDS [1]	28,291	*1,528*	*0*	29,819
HOUSEHOLD INCOME [2]	$93,539	*$102,371*	*$102,371*	$102,371
% INCOME SPENT ON RETAIL [3]		*22.26%*	*22.26%*	
TRADE AREA CAPTURE RATE [4]		*85.00%*	*85.00%*	
SECONDARY TRADE AREA DEMAND [6]	$1,568,188,510	*$29,591,385*	*$0*	$1,597,779,895
COMBINED PRIMARY & SECONDARY TRADE AREA				
NUMBER OF HOUSEHOLDS [1]	68,143	*2,981*	*178*	71,302
HOUSEHOLD INCOME [2]	$77,437	*$89,770*	*$76,519*	$89,770
% INCOME SPENT ON RETAIL [3]		*22.26%*	*22.26%*	
TRADE AREA CAPTURE RATE [4]		*85.00%*	*85.00%*	
COMBINED PRIMARY & SECONDARY TRADE AREA DEMAND [7]	$3,300,093,977	*$50,624,295*	*$2,576,640*	$3,353,294,913

Notes:

[1] Refer to Exhibit 1.
[2] Refer to Exhibit 1.
[3] Source: Applied Geographic Solutions, 2018, City of Vallejo Consumer Expenditures.
[4] Conservatively assumed that the Primary Trade Area will absorb all retail sales resulting from the Project.
[5] Refer to Exhibit 2 for 2019 figures.
[6] Difference between the Combined Primary and Secondary Trade Area Demand (refer to Exhibit 4), and the Primary Trade Area Demand (refer to Exhibit 3).
[7] Refer to Exhibit 3.

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 8
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
PROJECTED RETAIL SUPPLY WITH PROJECT
(INCLUDING ALL FUTURE DEVELOPMENT)

MARKET AREA	EXISTING 2019 SUPPLY	RE-TENANTING OF EXISTING SITE	FAIRVIEW AT NORTHGATE (TOTAL)	TOTAL SUPPLY IN 2024
PRIMARY TRADE AREA				
PROJECTED BUILDING SQ. FT. [1]		*125,437*	*54,251*	
BLENDED TAXABLE SALES PER SQ. FT. [2]		*$300*	*$693*	
DISPLACED SALES WITHIN TRADE AREA [3]		*20.00%*	*20.00%*	
PRIMARY TRADE AREA SUPPLY [4]	$1,509,196,507	*$30,104,880*	*$30,066,158*	$1,569,367,545
COMBINED PRIMARY & SECONDARY TRADE AREA				
PROJECTED BUILDING SQ. FT. [1]		*125,437*	*54,251*	
BLENDED TAXABLE SALES PER SQ. FT. 2		*$300*	*$693*	
DISPLACED SALES WITHIN TRADE AREA [3]		*20.00%*	*20.00%*	
COMBINED PRIMARY & SECONDARY TRADE AREA SUPPLY [5]	$2,609,116,317	*$30,104,880*	*$30,066,158*	$2,669,287,355

Notes:

[1] Source: Publications from the City of Vallejo Planning Department.

[2] Based on the median sales per sq. ft. figure for retail centers as outlined in "Dollars and Cents of Shopping Centers" (2008) published by the Urban Land Institute.

[3] Estimate, subject to change.

[4] Refer to Exhibit 2 for 2019 figures.

[5] Refer to Exhibit 3.

DAVID TAUSSIG & ASSOCIATES

EXHIBIT 9
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
DEMAND AND SUPPLY SUMMARY WITH PROJECT
(INCLUDING ALL FUTURE DEVELOPMENT)

JURISDICTION	EXISTING 2019 CONDITIONS [1]	PROJECTED 2024 CONDITIONS [2]
PRIMARY TRADE AREA		
PROJECTED DEMAND	$1,731,905,467	$1,755,515,018
PROJECTED SUPPLY	$1,509,196,507	$1,569,367,545
EXCESS/(LEAKAGE)	($222,708,960)	($186,147,473)
SECONDARY TRADE AREA		
PROJECTED DEMAND	$3,300,093,977	$3,353,294,913
PROJECTED SUPPLY	$2,609,116,317	$2,669,287,355
EXCESS/(LEAKAGE)	($690,977,660)	($684,007,557)

Notes:
[1] Refer to Exhibits 2 and 3.
[2] Refer to Exhibits 7 and 8.

DAVID TAUSSIG & ASSOCIATES

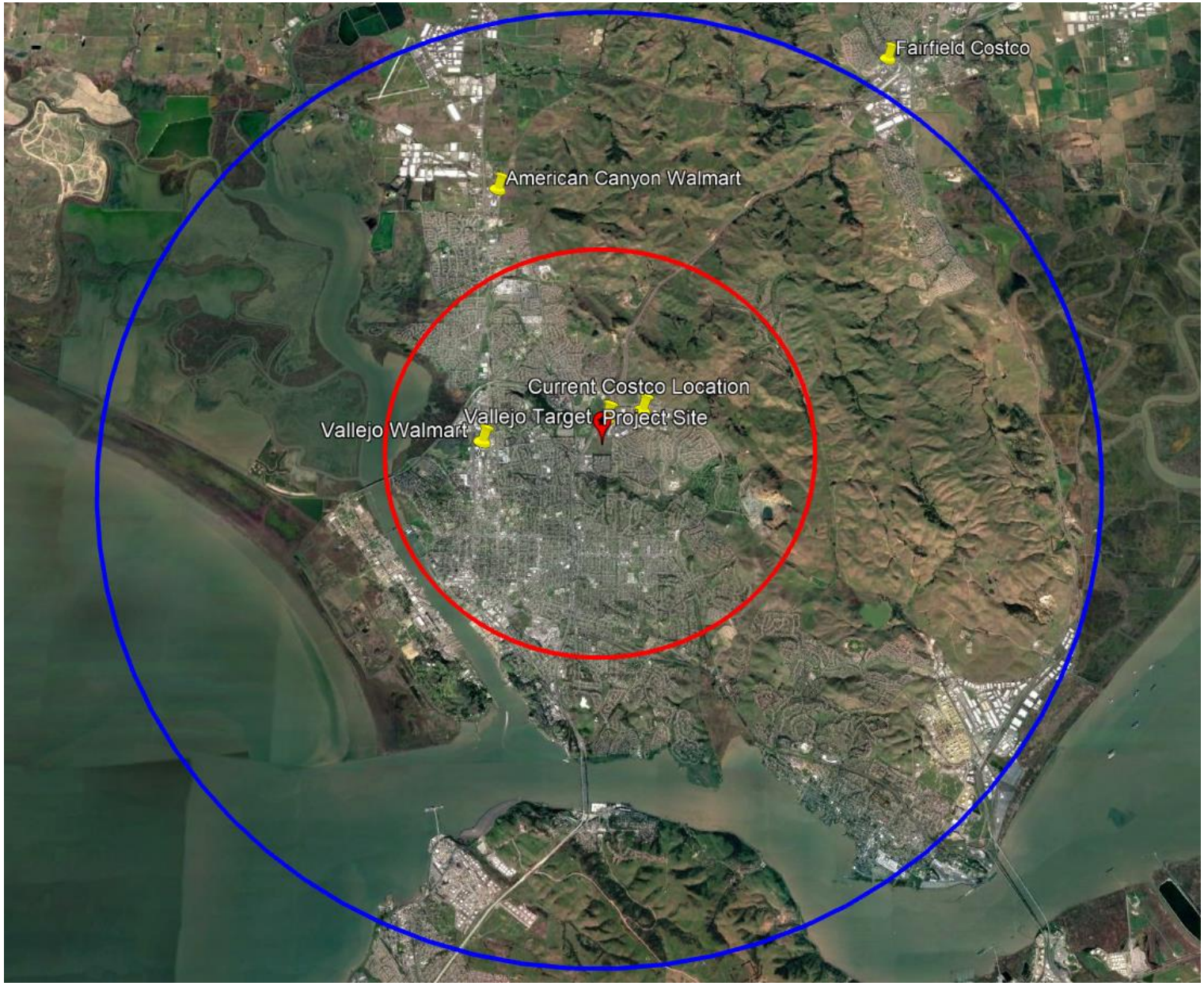
EXHIBIT 10
CITY OF VALLEJO - FAIRVIEW AT NORTHGATE
EXISTING RETAIL ESTABLISHMENTS

JURISDICTION	ESTIMATED RETAIL SQ. FT. [1]
PRIMARY TRADE AREA	
Lowe's	185,142
Target	106,169
Kohl's	97,732
Home Depot	95,443
Food 4 Less	56,814
Foodmaxx	52,431
Toyota	51,930
Century Theatres	50,090
Best Buy	44,925
Safeway	31,790
Momentum Chrysler/Dodge/Jeep/Ram	27,500
Pep Boys	22,268
Smart & Final	20,563
CVS	16,500
Petco	12,000
Sleep Train Mattress Center	10,000
Big 5 Sporting Goods	10,000

Notes:

Source: CoStar

EXHIBIT 11: EXISTING SUPERSTORES – PRIMARY (3 MILE) AND SECONDARY (7 MILE) RETAIL TRADE AREAS



APPENDIX B

LAND USE PLAN

PROJECT SUMMARY:

LAND USE:
RESIDENTIAL - 23.8± AC
COMMERCIAL - 21.8± AC
OPEN SPACE - 5.7± AC
TOTAL - 51.3± AC

RESIDENTIAL SUMMARY:

LOT COUNT:
86 - 42'x85' SINGLE FAMILY LOTS
92 - 50'x60' ALLEY-LOADED LOTS
178 - TOTAL LOTS

COMMERCIAL SUMMARY:

MAJOR RETAILER: 152,138± SF
SHOPS & RETAIL: 27,490± SF

✱ SIGNALIZED INTERSECTION (TWO LOCATIONS)

✱ PROPOSED BUS STOP

NORTH
0 50 100 200
SCALE: 1"=100'

OVERALL SITE PLAN with TRAILS
FAIRVIEW at NORTHGATE
Vallejo, California

C.2

REVISED: MAY 2019 SEPTEMBER 2018

DAVID
TAUSSIG
& Associates, Inc.

FISCAL IMPACT ANALYSIS
PHASE II OF
ECONOMIC IMPACT ANALYSIS

FAIRVIEW AT NORTHGATE
VALLEJO, CALIFORNIA

NOVEMBER 15, 2019

Prepared For

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TABLE OF CONTENTS

SECTION PAGE

EXECUTIVE SUMMARY I

SECTION 1. INTRODUCTION 1

SECTION 2. DESCRIPTION OF RECURRING FISCAL REVENUES AND COSTS 3

SECTION 3. FISCAL IMPACTS 12

APPENDICES

Appendix A: Fiscal Impact Model

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EXECUTIVE SUMMARY

I. PURPOSE OF ANALYSIS

The objective of this Fiscal Impact Analysis ("FIA"), hereby incorporated as Phase II of the Economic Impact Analysis ("EIA"), is to analyze the fiscal impacts of new development on the City of Vallejo (the "City") under the framework provided by Section 16.76.040 of the City's Municipal Code ("the Code"). David Taussig & Associates, Inc. ("DTA") has evaluated the Fairview at Northgate project (the "Project") by examining the residential and non-residential land uses. Additionally, the Project has been fully reviewed and analyzed by City staff and City Council, thus its parameters and data are well verified and documented. As follows, the FIA analyzes the recurring fiscal impacts of the Project's development on the City General Fund. The Urban Decay Analysis (Phase I of the EIA) was previously submitted to the City and can be found separate from this report.

II. TYPES OF FISCAL IMPACTS TO CITY OF VALLEJO EVALUATED IN THE ANALYSIS

The purpose of the fiscal component of the EIA is to estimate the net fiscal impacts of the Project's proposed development on the City General Fund. The fiscal impacts identified in this analysis include recurring municipal revenues and costs to the City General Fund that result from the land use scenario analyzed. City General Fund revenues are generated from a variety of revenue sources, including property taxes, sales taxes, fees, and fines. Costs to the City General Fund are associated with a variety of services, such as police protection, public works maintenance, and general government services.

III. DESCRIPTION OF FAIRVIEW AT NORTHGATE PROJECT

The proposed Project is located in the City of Vallejo within the County of Solano and spans approximately 51.3 acres. It is comprised of approximately 179,688 square feet of retail/commercial space (including the proposed Costco, five retail pads, and gasoline service station accommodating up to 30 fueling dispensers and a related kiosk) within 21.8 acres, a residential component of 178 single family units within 23.8 acres, and 5.7 acres of open space. Notably, the new Costco is to replace a Costco less than one mile from the Project site; the net effect of the replacement is an additional 26,701 square feet. The Project site is located on a vacant, undeveloped lot, and is bounded to the west by the Admiral Callaghan Lane right-of-way, to the north by the Turner Parkway right-of-way, to the south by a car dealership, residential condominiums, and apartments, and to the east by single family homes. The I-80 freeway is immediately adjacent to the west of Admiral Callaghan Lane.

IV. CONCLUSIONS OF ANALYSIS RELATED TO PROJECT

Following are the major conclusions related to the fiscal impacts of the Project:

A. FISCAL IMPACTS

As reflected in **Table A** below, the Net Fiscal Impact on the City General Fund is estimated to be an annual surplus of **$1,416,361**, based on **$1,949,211** in fiscal revenues and **$532,850**

in fiscal costs. The fiscal surplus results primarily from direct and indirect sales tax receipts (69.90 percent), and general property tax revenues (23.31 percent), including secured, unsecured, and in-lieu fees, that are generated by the retail and residential developments, together constituting approximately 93.21 percent of total recurring revenues to the County General Fund.

The Annual Revenue/Cost Ratio of **3.66** demonstrates that the Project will have a positive net impact on the County General Fund, generating recurring revenues that vastly outpace anticipated expenditures related to the Project.

Table A
Net Fiscal Impact (City General Fund)

Category	Amount
Total Recurring Revenues	$1,949,211
Total Recurring Costs	$532,850
Annual Recurring Surplus/(Deficit)	**$1,416,361**
Total Annual Revenue/Expenditure Ratio	3.66

Source: Based on the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

It is important to note that should the proposed Project (the Costco expansion) not be approved, and if the existing Costco closes and relocates to a location outside the boundaries of the City, the result would be a significant negative fiscal impact to the City. The existing Costco currently accounts for approximately $33,000 annually in property taxes to the City and generates approximately $2.15 million in sales tax revenues. The site also employs roughly 300 people. Under a scenario where the existing Costco leaves the City, the combined losses of these revenue streams would meaningfully impact the City's annual recurring revenues.

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SECTION 1 INTRODUCTION

The objective of this Fiscal Impact Analysis is to analyze the fiscal impacts of new development on the City of Vallejo under the framework provided by Section 16.76.040 of the City's Municipal Code. David Taussig & Associates, Inc. has evaluated the Fairview at Northgate project by examining the residential and non-residential land uses. As follows, the FIA analyzes the recurring fiscal impacts of the Project's development on the City General Fund.

I. SCOPE AND METHODOLOGY

Fiscal impacts arising from a land development plan can be broadly categorized as one of two types: one-time impacts or recurring impacts. Each of these broad types may, in turn, be divided into a revenue component and a cost component. For purposes of this analysis, it has been assumed that one-time revenues would directly offset one-time costs; thus, the fiscal impacts considered in this FIA focus on ongoing, or recurring, fiscal impacts of the Project on the City General Fund. To the extent that revenues are generated outside of the City's General Fund (e.g., special district revenues) or costs are incurred by the City outside of the General Fund (e.g., costs financed through a special district), they are not directly included within this fiscal analysis.

The fiscal impacts projected for the FIA are based generally on the *Multiplier Methodology.* The primary *Multiplier Methodology* used to project the fiscal impacts in this analysis was the *Per Capita-Employee ("Persons Served") Methodology*. The *Persons Served Methodology* considers the fact that the exact relationship of service demands and revenue-generating potential between residents and employees is difficult to measure. Thus, utilizing a service population, or Persons Served population, comprised of all residents and 50 percent of employees is common fiscal practice, and suggests that a resident generally has twice the fiscal impact of an employee. This methodology involves calculating the average City-wide revenues/costs per Persons Served, utilizing the fiscal year ("FY") 2018-2019 City budget, and applying these revenue/cost factors to the specific number of Persons Served projected for the Project.

DTA also used a *Per Employee Methodology* in the FIA to project recurring fiscal factors based on employment only, such as business receipts and business license tax revenues. Similar to the *Persons Served Methodology* discussed above, the *Per Employee Methodology* involves calculating the average City-wide revenues/costs per employee, utilizing the FY 2018-2019 City budget, and applying these factors to the specific number of employees projected under the given scenario.

While most recurring revenues analyzed in the FIA are projected using the *Multiplier Methodology,* some major revenue sources, including property taxes and sales taxes, are calculated using a *Case Study Methodology* that involves calculating the marginal revenues to be specifically generated by a particular land use, instead of applying an average City-wide revenue factor. For purposes of the analysis, all recurring revenues and costs are stated in

constant (un-inflated) 2019 dollars, based on the assumption that the relative impacts of inflation in future years will be the same for both of these fiscal impact categories.

II. LIMITATIONS

A. ACCURACY OF INFORMATION

The fiscal model in the FIA contains an analysis of revenues, costs, and impacts to the City resulting from the Project. This model is based on both (i) information provided to DTA by City staff and (ii) certain assumptions taken from DTA's municipal cost database, as compiled by DTA from previous impact studies prepared by the firm. The sources of information and basis of the estimates calculated in the analysis are stated herein. While DTA is confident that the sources of information are reliable, DTA does not express an opinion or any other form of assurance on the accuracy of such information. The analysis of fiscal impacts contained in this report is not considered to be a "financial forecast" or a "financial projection" as technically defined by the American Institute of Certified Public Accountants. The word "projection" used within this report relates to broad expectations of future events or market conditions. Since the analyses contained herein are based on estimates and assumptions that are inherently subject to uncertainty and variation depending on evolving events, DTA cannot represent that such estimates will definitely be achieved. Some assumptions inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, the actual results achieved may vary from these projections stated throughout the analysis.

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SECTION 2 DESCRIPTION OF RECURRING FISCAL REVENUES/COSTS

The following section presents the recurring revenue and cost impacts to the City General Fund and the methodology and assumptions utilized in the FIA to project these impacts. Case Study and Multiplier Method revenue and cost descriptions in this section are based off those in the City's FY 2018/2019 Adopted Budget. Detailed numerical analyses of the revenue and cost impacts subsequently discussed in this section are contained in **Appendix A**.

I. ANALYSIS OF RECURRING REVENUES

CASE STUDY METHOD:

A. PROPERTY TAXES – SECURED AND UNSECURED

Property tax revenues are conservatively projected based on the City's estimated share of the general 1 percent property tax levy. Total secured property tax revenues received by the City from the land uses will equal approximately 19.04 percent of the basic 1 percent property tax levy from the Tax Rate Areas ("TRAs") encompassing the Project. Please note that the gross tax increment, as calculated by the Solano County (the "County") Auditor-Controller, has been reduced to account for the projected Education Revenue Augmentation Fund ("ERAF") property tax shifts. Please refer to **Table 2A** below and **Exhibit 4** of **Appendix A** for details regarding the secured and unsecured property tax assumptions utilized in the fiscal impact analysis.

Unsecured property taxes are levied on tangible personal property that is not secured by real estate. Examples of unsecured property include trade fixtures (e.g., manufacturing equipment and computers), as well as airplanes, boats, and mobile homes on leased land. In generating the fiscal impact models for this analysis, DTA has assumed that unsecured property values average 2.75 percent of the secured value for residential land uses, and 10.00 percent of the secured value for non-residential land uses.

B. PROPERTY TRANSFER TAX

Per California Revenue & Taxation Code §11901, *et seq*. and the Vallejo Municipal Code §3.08.020, sales of real property are taxed by the County at a rate of $1.10 per $1,000 of property value, whereas for property located in the City, the property transfer tax is divided equally between the City and the County, with the City receiving $0.55 per $1,000 of transferred property sale or resale value, excluding assumed liens or encumbrances. Per typical baseline assumptions, DTA assumes that residential development changes ownership at an average rate of 10 percent per year and that non-residential development changes ownership at an average rate of 5 percent per year, and that continuing liens and encumbrances are insignificant.

C. PROPERTY TAX IN-LIEU OF VEHICLE LICENSE FEE

The passage of Proposition 1A in California in 2004 enacted a constitutional amendment that introduced a new methodology to calculate property taxes in-lieu of VLF. Per California Revenue and Taxation Code §97.70, the property tax in-lieu of VLF amount now grows in proportion to the growth rate of gross assessed valuation in a city or county. Property taxes in-lieu of VLF revenues are projected to grow with the change in the City-wide gross assessed valuation of taxable property from the prior fiscal year. Property tax in-lieu of VLF revenues constitute an addition to other property tax apportionments and were calculated for purposes of this analysis at $1.12 per $1,000 increase in assessed valuation on a City-wide basis. Please refer to **Table 2A** below and **Exhibit 4** of **Appendix A** for details regarding the property tax assumptions utilized in the fiscal impact analysis.

TABLE 2A – PROPERTY TAX ASSUMPTIONS

Property Tax Assumptions	
Property Tax	
Valuation Per Unit	$625.000
Secured Property Tax – Net Apportionment Factor to the City of Vallejo as a Fraction of 1.0% Property Tax Rate (Net of ERAF)	19.04%
Unsecured Property Tax – Unsecured Taxes as a % of Secured Property Value	2.75% - Residential 10.00% - Non-Residential
Property Transfer Tax	
Residential Property Turnover Rate	10.00%
Non-Residential Property Turnover Rate	5.00%
Transfer Tax as a % of Price	0.11%
Property Transfer Tax Passed Through to City	50.00%
Property Tax In-Lieu of VLF	
City of Vallejo – Total Assessed Value (FY 2018-19)	$9,126,502,971
City of Vallejo – VLF Prop. Tax In-Lieu Revenues (FY 2018-19)	$10,263,252
VLF Property Tax In-Lieu per $1,000 Assessed Value	$1.12

Source: County of Solano Auditor-Controller-Treasure-Tax Collector and City of Vallejo Comprehensive Annual Financial Report for FY 2016-2017.

D. MOTOR VEHICLE LICENSE FEES

(I). BACKGROUND

Prior to June 1, 2004, the Motor Vehicle License Fee ("VLF") tax rate was equal to 2.00 percent of the value of a vehicle, with 0.65 percent paid by the vehicle owner and an additional 1.35 percent supplemented with a backfill from the State General Fund. A large portion of those funds was allocated to cities (42.50 percent) and counties (42.50 percent) based on population, while newly incorporated cities received an additional population subvention based on three (3) times the number of registered voters for the first seven (7) years after incorporation.

As discussed earlier, in 2004, the VLF allocation was altered. The California Legislature implemented the "VLF Swap" in which the VLF was lowered to 0.65 percent. The resultant loss of city revenue was swapped with an augmentation of property tax, termed property tax in-lieu of VLF. These amounts grow annually based on the annual increase in assessed value within each respective jurisdiction (again, see above).

(II). SUPPLEMENTAL LAW ENFORCEMENT FUNDING ("SLESF") AND OTHER STATE LAW ENFORCEMENT GRANTS

As a part of the 2009 state budget agreement, a number of law enforcement grant programs previously funded by the state general fund were instead funded in FY 2009-10 and FY 2010-11 by a temporary 0.15 percent state VLF increase, which ended on June 30, 2011. The additional 0.15 percent VLF rate was intended to generate around $500 million annually – the tax generated $414 million in FY 2009-10 and $442 million in FY 2010-11.

(III). SENATE BILL (SB) 89 - FEES SHIFTED TO FUND STATE LAW ENFORCEMENT GRANTS

SB89, signed in 2010 by Governor Brown, effectively eliminated the 0.65 percent VLF revenue that was being allocated as a general fund revenue source to California cities. Provisions in SB89 shifted hundreds of millions of VLF revenues to fund the state law enforcement grants beginning FY 2011-12. The SB89 plan operated as follows:

- The "Vehicle License Registration Fee" was increased by $12 to produce approximately $300 million in FY 2011-12. This fee funded state DMV vehicle license registration operations, thereby "freeing up" $300 million of VLF revenue that had been used to fund DMV operations. This money was transferred to a new Local Law Enforcement Services Account ("LLESA)" to fund the law enforcement grants.

- In addition, beginning July 1, 2011, SB89 transferred the remaining VLF revenue (after the Local Revenue Fund allocation for county health and welfare programs) previously allocated to cities and counties to the LLESA.

SB89 took $130 million of city general revenue and shifted it to save state law enforcement grant programs. Less than $100 million of these grant funds have or will come back to cities, earmarked for police services. But these funds will likely continue to be offset by the loss of city VLF. Therefore, VLF (as opposed to property tax in-lieu of VLF) revenue was not analyzed as a Project revenue source in this FIA.

E. SALES AND USE TAXES

Direct sales tax revenues are generated by retail sales from businesses within City limits, with 2.0 percent of taxable sales receipts passed through to the City due to the enactment Measure B, which was passed in November 2011 and extended into perpetuity by Measure V on November 8, 2016. **Exhibit 5** of **Appendix A** reflects taxable sales receipts per square foot for each on-site non-residential land use type, based on data from the Urban Land Institute's

Dollars & Cents of Shopping Projects publication and total taxable sales receipts for the Project, based on information provided by the City.

Indirect sales tax revenues, also summarized in **Exhibit 5** of **Appendix A**, are generated by the purchases made by the Project's residents and employees within the City. Based on studies outlined in the *International Council of Shopping Centers' Office Worker Local Retail Spending Patterns,* DTA assumed that each on-site employee spends nearly $9,370 annually within the City.

TABLE 2B – SALES TAX ASSUMPTIONS

Sales Tax Assumptions	
% Sales Tax Passed Through to City of Vallejo [1]	2%
Local Employee Spending (Annual)	$9,370
Capture Rate of Employee Spending (within City)	*85%*
Displacement Rate (of existing taxable sales within City)	*20%*
Taxable Sales per Sq. Ft. – Fairview at Northgate (Costco - Expansion)	$1,098
Taxable Sales per Sq. Ft. – Fairview at Northgate (Other Retail Pads)	$300
Taxable Sales per Sq. Ft. – Re-tenanting of Existing Site	$300

Note:
[1] Includes Measure B charge of additional 1.00 percent, which passed in November 2011.
Source: City of Vallejo Municipal Code and the Urban Decay Analysis (Phase I of the Economic Impact Analysis).

F. INVESTMENT INCOME REVENUES

Investment Income revenues are generated by the increase in General Fund Revenues resulting from the Project. This increase reflects growth in the following revenue categories: property taxes, sales taxes, and multiplier revenues (as discussed below).

Revenues from this source are estimated by multiplying the Projected Recurring General Fund Revenues Available for Investment of $1,939,610 by the estimated Local Agency Investment Fund ("LAIF") investment fund rate of return of approximately 1.0 percent by the LAIF Percentage of Earnings Cost factor of 50 percent. This calculation results in estimated Investment Income (less Earnings Cost) of $9,601 (which when added to $1,939,610 equals $1,949,211). LAIF factors are determined quarterly by the California State Treasurer whose office governs the investment of revenues by municipalities.

Please refer to **Table 2C** below and **Exhibit 6** of **Appendix A** for details regarding the investment income assumptions utilized in the fiscal impact analysis.

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TABLE 2C – INVESTMENT INCOME ASSUMPTIONS

Investment Income Assumptions	
Investment Period for Recurring Non-Interest General Fund Revenues	12 Months
Estimated Local Agency Investment Fund (LAIF) Rate of Return	1.00%
Local Agency Investment Fund (LAIF) Percentage of Earnings	50%
Projected Recurring General Fund Revenues Available for Investment	$1,939,610

Source: Based on the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

MULTIPLIER METHOD:

G. TRANSIENT OCCUPANCY TAX

Transient Occupancy Tax (TOT) revenues saw an uptick starting in FY 15-16. A previously performed audit, combined with enhanced collection efforts by the Finance Department, led to a significant increase of this revenue stream in prior years. For FY 18-19, TOT revenue projections are expected to decline to $2.2 million. Revenues are forecasted using a *Per Capita-Employee Multiplier Metho*d that results in a total multiplier of $14.58 per Persons Served.

H. FRANCHISE FEES

Franchise taxes are revenues generated on cable television, natural gas, electricity, and garbage services that are paid to the City by franchise holders. Franchise Taxes revenues are projected to remain stable compared to the prior year. Franchise Taxes were forecasted at $33.85 per Persons Served using the *Per Capita-Employee Multiplier Method*.

I. UTILITY USER TAX

Utility User taxes are revenues generated on cable television, natural gas, electricity, and telephone services and collected from the end users of these services. Utility User Tax revenues are projected to remain stable compared to the prior year. Utility User Taxes were forecasted at $63.75 per Persons Served using the *Per Capita-Employee Multiplier Method*. Please note that this revenue multiplier has been reduced by 25 percent to account for only the portion of these revenues that is expected to be variable with population and employee growth in the City.

J. MEDICAL MARIJUANA TAX

Measure C tax revenue projections are expected to remain flat when compared to last year. While growth in the industry is expected, especially with the passage of recreational marijuana legislation at the State level, and the marketplace is expected to change drastically in the coming years, the revenue received by the City has yet to show significant increases. Revenues are forecasted using a *Per Capita-Employee Multiplier Method* that results in a total multiplier of $16.15 per Persons Served.

K. Business Licenses

Collections on Business License taxes peaked at the end of last fiscal year due to increased collection efforts. This revenue source is expected to remain relatively flat this fiscal year as the number of businesses within the City remains relatively stable. Business Licenses are based on the City's collection of fees for various types of permits and community programs. Revenues are forecasted using a *Per Employee Multiplier Method* that results in a total multiplier of $20.14 per Employee. Please note that this revenue multiplier has been reduced by 25 percent to account for only the portion of these revenues that is expected to be variable with population and employee growth in the City.

L. Revenue From Use of Assets (Rentals)

Revenues are forecasted using a *Per Capita-Employee Multiplier Method* that results in a total multiplier of $7.77 per Persons Served.

M. Miscellaneous Revenues

Finally, Miscellaneous Revenues, including Water Rights, Discovery Kingdom Park Fees, Sales of Surplus Property, and other fees, were projected at $9.52 per Persons Served utilizing the *Per Capita-Employee Multiplier Method*. Please note that this revenue multiplier has also been reduced by 50 percent to account for only the portion of these revenues that is expected to be variable with population and employee growth in the City.

Table 2D – Other General Fund Revenues (Multiplier Method)

Category	Amount	Methodology
Transient Occupancy Tax	$14.58	Persons Served
Franchise Taxes	$33.85	Persons Served
Utility User Tax	$63.75	Persons Served, Plus 25% Discount
Medical Marijuana Tax	$16.15	Persons Served
Business Licenses	$20.14	Per Employee, Plus 25% Discount
Revenue from Use of Assets (Rentals)	$7.77	Persons Served
Miscellaneous Revenues	$9.52	Persons Served, Plus 50% Discount

Source: Based on the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

Please refer to **Exhibit 7** of **Appendix A** for more details on the case study assumptions and revenue multipliers utilized in the analysis.

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II. ANALYSIS OF RECURRING COSTS

CASE STUDY METHOD:

A. OPEN SPACE, GREENSPACE, AND PUBLIC ROAD MAINTENANCE

The Project will require the construction of new infrastructure which may ultimately need to be maintained by the City's General Fund. At this time, it is estimated that the commercial component of these public infrastructure improvements will consist of five (5) separate buildings plus the gasoline service station accommodating up to thirty (30) fueling dispensers and a related kiosk, as well as 962 parking spaces which includes the required number of accessible spaces for disabled persons. The residential component will consist of 178 single family detached units – 86 with traditional front-loaded garages and 92 with a private front courtyard and alley-loaded garages. The open space will separate the commercial and residential components and be surrounded by perimeter fencing with private gate access.

These improvements were multiplied by estimated annual cost figures for each category derived from the DTA Public Works Database, resulting in annual Open Space, Greenspace, and Public Road Maintenance costs of $74,584.

Table 2E – Open Space, Greenspace, and Public Road Maintenance Requirements (Case Study Method)

Infrastructure to be Maintained by City General Fund	Cost Per Unit
Open Space (Preservation Area)	$5,164
Basins/Greenspace	$5,164
Public Roads	$7,834

Source: Fairview at Northgate Project details.

B. GENERAL GOVERNMENT COSTS

General Government costs are projected at a marginal rate of 10.38 percent of the City General Fund recurring costs, based on the assumption that the FY 2018-2019 General Government expenditures, equaling $11.8 million, will remain at the same relative proportion of the FY 2018-2019 City General Fund non-governmental expenditures of approximately $85.3 million in future years. The current percentage of General Government expenditures to City General Fund non-governmental expenditures is approximately 13.8 percent; however, these General Government costs are not expected to increase on a one-for-one basis as a result of the land use development depicted in this FIA. Therefore, this analysis assumes that General Government costs increase at an estimated marginal rate of 75 percent, or 10.38 percent, of the existing General Government cost overhead rate. This approach results in annual General Government costs of $50,098.

MULTIPLIER METHOD:

C. POLICE

Police services include those costs associated with Law Enforcement and Patrol, Administration, Traffic Enforcement, Crime Prevention, Emergency Response, and Community Services. Police services will be provided to the Project by the City of Vallejo's Police Department. Police Protection costs for the Project were forecasted at $309.53 per Persons Served based on *the Per Capita-Employee Multiplier Method.*

D. FIRE

Fire costs relate to fire administration, prevention, and suppression, including emergency medical services to protect life, property, and the environment from the effects of fire, medical emergencies, and hazardous conditions by providing 9-1-1 services, fire inspections permits, and community education. Fire services will be provided to the Project by the City of Vallejo's Fire Department. Fire costs were forecasted at $175.62 per Persons Served using the *Per Capita-Employee Multiplier Method*.

E. PUBLIC WORKS

Public Works costs relate to engineering, administration, and public building, electrical, street, ground, traffic sign and signal, and ferry maintenance. Public Works costs were forecasted at $54.53 per Persons Served based on the *Per Capita-Employee Multiplier Method.*

F. INFRASTRUCTURE MAINTENANCE

Infrastructure Maintenance was projected at $4.21 per Persons Served utilizing the *Per Capita-Employee Multiplier Method.* Please note that this cost multiplier has been reduced by 50 percent to account for only the portion of these costs that is expected to be variable with population and employee growth in the City.

G. PLANNING AND DEVELOPMENT SERVICES

Planning and Development costs relate to services provided by the Planning and Building Divisions, including Administration and Economic Development. Planning and Development Services were projected at $12.97 per Persons Served utilizing the *Per Capita-Employee Multiplier Method.* Please note that this cost multiplier has been reduced by 50 percent to account for only the portion of these costs that is expected to be variable with population and employee growth in the City.

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TABLE 2F – OTHER GENERAL FUND COSTS (MULTIPLIER METHOD)

Category	Amount	Methodology
Police	$309.53	Persons Served
Fire	$175.62	Persons Served
Public Works	$54.53	Persons Served
Infrastructure Maintenance	$4.21	Persons Served, Plus 50% Discount
Planning & Development Services	$12.97	Persons Served, Plus 50% Discount

Source: Based on the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

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SECTION 3 FISCAL IMPACTS

I. TOTAL RECURRING REVENUES: CITY OF VALLEJO

Total recurring revenues to the City equal approximately $1,949,211 per year. As illustrated in **Table 3A** below, the largest percentage of revenue is attributed to direct and indirect sales tax receipts (69.90 percent), property tax revenues (secured and unsecured) (14.91 percent of total), and property tax in-lieu of VLF revenues (8.40 percent), together constituting approximately 93.21 percent of total recurring revenues to the City General Fund. **Exhibits 1 through 7** of **Appendix A** provide additional details about all recurring revenues and the assumptions used in their derivation.

TABLE 3A
RECURRING FISCAL REVENUES (CITY GENERAL FUND)

Category	Amount	Percent
Direct Sales Tax	$1,203,421	61.74%
Secured Property Tax	$278,049	14.26%
Property Tax In-Lieu of Vehicle License Fee	$163,782	8.40%
Indirect Sales Tax	$159,058	8.16%
Utility User Tax	$46,728	2.40%
Franchise Taxes	$24,812	1.27%
Unsecured Property Tax	$12,606	0.65%
Medical Marijuana Tax	$11,838	0.61%
Transient Occupancy Tax	$10,687	0.55%
Investment Income	$9,601	0.49%
Business Licenses	$8,911	0.46%
Property Transfer Tax	$7,045	0.36%
Miscellaneous Revenues	$6,978	0.36%
Revenues from Use of Assets (Rentals)	$5,695	0.29%
Total Revenues	**$1,949,211**	**100.00%**

Source: Based on the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

II. TOTAL RECURRING SERVICES COSTS: CITY OF VALLEJO

As illustrated in **Table 3B**, total annual recurring costs to the City are estimated at **$532,850** per year. A majority of the costs are estimated to result from Police Expenditures. **Exhibits 2** and **8 through 10** of **Appendix A** provide additional details about all recurring costs and the assumptions used in their derivation.

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TABLE 3B
RECURRING FISCAL COSTS (CITY GENERAL FUND)

Category	Amount	Percent
Police	$226,880	42.58%
Fire	$128,727	24.16%
Open Space, Greenspace, and Public Road Maintenance	$74,584	14.00%
General Government	$50,098	9.40%
Public Works	$39,970	7.50%
Planning & Development Services	$9,506	1.78%
Infrastructure Maintenance	$3,085	0.58%
Total Costs	**$532,850**	**100.00%**

Source: Based on the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

III. OVERALL NET FISCAL IMPACT TO THE CITY OF VALLEJO

As shown in **Table 3C** below, the overall fiscal impact to the City as a result of revenues generated by the Project is a recurring annual fiscal surplus of **$1,416,361** based on the generation of **$1,949,211** in recurring annual revenues and **$532,850** in recurring annual costs. The fiscal surplus results primarily from direct and indirect sales tax receipts (69.90 percent) and general property tax revenues (23.31 percent), including secured, unsecured, and in-lieu fees, that are generated by the retail and residential developments, together constituting approximately 93.21 percent of total recurring revenues to the County General Fund.

Annual revenues are projected to equal **3.66** times the associated City General Fund costs. A summary of the overall fiscal impacts to the City is provided in **Exhibit 11** of **Appendix A.**

TABLE 3C
NET FISCAL IMPACT (CITY GENERAL FUND)

Category	Amount
Total Recurring Revenues	$1,949,211
Total Recurring Costs	$532,850
Annual Recurring Surplus/(Deficit)	**$1,416,361**
Total Annual Revenue/Expenditure Ratio	3.66

Source: Based on the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

APPENDIX A

FISCAL IMPACT MODEL

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EXHIBIT A-1
VALLEJO, CALIFORNIA
CITY GENERAL FUND REVENUES (BY TYPE)

I. Demographics and Other Data

2018 Estimated City Population [1]	119,252
2018 Estimated City Employees [2]	58,618
2018 Persons Served Population [3]	148,561

II. City Revenue Sources (by Type) [6]

Revenue Type	Total Revenues	Revenue Type	Fiscal Impact Basis	Discount [4]	Fiscal Impact Revenue Factor
Property Taxes	$30,150,744	Recurring	Case Study	0%	NA
Sales & Use Taxes	$29,867,989	Recurring	Case Study	0%	NA
Transient Occupancy Tax	$2,165,340	Recurring	Persons Served	0%	$14.58
Real Property Excise Tax	$150,000	Recurring	Case Study	0%	NA
Franchise Taxes	$5,028,283	Recurring	Persons Served	0%	$33.85
Utility User Tax	$12,628,587	Recurring	Persons Served	25%	$63.75
Property Tax Transfer	$2,758,000	Recurring	Case Study	0%	NA
Medical Marijuana Tax	$2,400,000	Recurring	Persons Served	0%	$16.15
Business Licenses	$1,574,000	Recurring	Per Employee	25%	$20.14
Revenue from Use of Assets (Rentals)	$1,154,631	Recurring	Persons Served	0%	$7.77
Investment Income	$147,000	Recurring	Case Study	0%	NA
Miscellaneous Revenues	$2,827,341	Recurring	Persons Served	50%	$9.52
Transfers In	$10,990	Non-Recurring	NA	100%	NA
Program Revenues [5]	$16,187,093	Non-Recurring	NA	0%	NA

Total Recurring Revenues	$90,851,915

Notes:

[1] California Department of Finance, E-5 City/County Population and Housing Estimates, as of January 1, 2018.

[2] Employment Data according to the City of Vallejo website.

[3] Assumes City population plus 50% of employees.

[4] Certain revenues are not expected to increase one-to-one with the new development. A discount was applied to reflect the estimated ratio of fixed revenues to variable revenues and/or one-time to recurring revenues.

[5] Program Revenues are identified as credits within the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

[6] Source: City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

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EXHIBIT A-2
VALLEJO, CALIFORNIA
CITY GENERAL FUND EXPENDITURES (BY TYPE)

I. Demographics and Other Data

2018 Estimated City Population [1]	119,252
2018 Estimated City Employees [2]	58,618
2018 Persons Served Population [3]	148,561

II. City Expenditures (by Type)

Expenditure Type	Total Expenditures	Revenue Type	Fiscal Impact Basis	Discount [4]	Fiscal Impact Revenue Factor
GENERAL GOVERNMENT					
Administration	$11,799,487	Recurring	Case Study	0%	NA
NON-GENERAL GOVERNMENT					
Police	$45,983,645	Recurring	Persons Served	0%	$309.53
Fire	$26,089,606	Recurring	Persons Served	0%	$175.62
Public Works	$8,101,533	Recurring	Persons Served	0%	$54.53
Infrastructure Maintenance	$1,250,000	Recurring	Persons Served	50%	$4.21
Planning & Development Services	$3,852,283	Recurring	Persons Served	50%	$12.97
City-wide	$9,470,964	Non-Recurring	Case Study	0%	NA
Total Recurring Expenditures	**$97,076,554**				

Notes:

[1] California Department of Finance, E-5 City/County Population and Housing Estimates, as of January 1, 2018.

[2] Employment Data according to the City of Vallejo website.

[3] Assumes City population plus 50% of employees.

[4] Certain revenues are not expected to increase one-to-one with the new development. A discount was applied to reflect the estimated ratio of fixed revenues to variable revenues and/or one-time to recurring revenues.

[5] Program Revenues are identified as credits within the City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

[6] Source: City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

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EXHIBIT A-3
VALLEJO, CALIFORNIA
LAND USE AND DEMOGRAPHICS SUMMARY

FUTURE LAND USE DATA

I. Developable Land Use Description

A. Residential Land Uses	Number of Units [1]
Single Family Detached (Traditional, Front-loaded)	86
Single Family Detached (Private Courtyard/Alley-loaded)	92

B. Commercial Land Uses	Sq. Ft. [1]
Retail (Fairview at Northgate, Costco - Expansion)	26,701
Retail (Fairview at Northgate, Other Retail Pads)	27,550
Retail (Re-tenanting of Existing Site)	125,437

C. Other Land Uses	Acres [1]
Basins/Greenspace	5.50
Public Roads	3.10
Open Space (Preservation Area)	5.70

DEMOGRAPHIC DATA

II. Demographics

A. Residential Land Use Population	Persons per Household [2]
Persons per Household	2.88

B. Non-Residential Land Use Employee Generation Commercial Land Uses	Sq. Ft. per Employee [3]
Retail (Fairview at Northgate, Costco - Expansion)	N/A
Retail (Fairview at Northgate, Other Retail Pads)	400
Retail (Re-tenanting of Existing Site)	400

POPULATION AND EMPLOYEES (CALCULATIONS)

III. Residential Land Use Type	Number of Units	Residential Population
Single Family Detached (Traditional, Front-loaded)	86	247
Single Family Detached (Private Courtyard/Alley-loaded)	92	265

IV. Non-Residential Land Use Type	Sq. Ft.	Total Direct Employees
Retail (Fairview at Northgate, Costco - Expansion)	26,701	60
Retail (Fairview at Northgate, Other Retail Pads)	27,550	69
Retail (Re-tenanting of Existing Site)	125,437	314

POPULATION AND EMPLOYEES (TOTALS)

V. Total Projected Residential Population	512
VI. Total Projected Direct Employees	442
VII. Total Persons Served Population	733

NOTES:

[1] Source: Project Proponent.

[2] California Department of Finance, E-5 City/County Population and Housing Estimates, as of January 1, 2018.

[3] DTA estimate. Subject to change.

* ***All figures subject to rounding***

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EXHIBIT A-4
VALLEJO, CALIFORNIA
PROPERTY TAX REVENUE ANALYSIS

GENERAL PROPERTY TAX ASSUMPTIONS

I. Property Tax Allocation (as a Portion of the 1% General Property Tax Levy)

Category / Code	General Fund [1]
City of Vallejo	0.19035824
	19.04%

II. Homeowner's Exemption

Homeowner's Exemption (Annually)	$7,000
Percent of Sale Units Taking Homeowner's Exemption [2]	90%

ASSESSED VALUATION ASSUMPTIONS

III. Assessed Valuation - Projected Land Uses

Residential Land Uses

A. Single Family Detached (Traditional, Front-loaded)

Number of Units [3]	86
Estimated Sales Price per Unit [4]	$625,000
Total Estimated Net Taxable Value (Includes Estimated Takedown from Homeowner's Exemptions)	$53,208,200

B. Single Family Detached (Private Courtyard/Alley-loaded)

Number of Units [3]	92
Estimated Sales Price per Unit [4]	$625,000
Total Estimated Net Taxable Value	$56,920,400

Non-Residential Land Uses

D. Retail (Fairview at Northgate, Total Project)

Estimated Number of Sq. Ft. [3]	54,251
Estimated Valuation per Sq. Ft. [4]	$200
Total Estimated Net Taxable Value	$10,850,200

E. Retail (Re-tenanting of Existing Site)

Estimated Number of Sq. Ft. [3]	125,437
Estimated Valuation per Sq. Ft. [4]	$200
Total Estimated Net Taxable Value	$25,087,400

F. Total Land Use Net Taxable Value (Includes Takeout from Homeowner's Exemption)	**$146,066,200**
Residential	*$110,128,600*
Non-Residential	*$35,937,600*

EXHIBIT A-4
VALLEJO, CALIFORNIA
PROPERTY TAX REVENUE ANALYSIS

OTHER PROPERTY TAX REVENUE ASSUMPTIONS

IV.	**Unsecured Property Taxes - Assumptions [5]**	
	Residential	
	Unsecured Taxes as a % of Secured	2.75%
	Non-Residential	
	Unsecured Taxes as a % of Secured	10.00%
V.	**Property Tax Transfer - Assumptions [6]**	
	Residential Property Turnover Rate	10.00%
	Non-Residential Property Turnover Rate	5.00%
	Transfer Tax as a % of Assessed Value	0.11%
	Property Transfer Tax Passed Through to City of Vallejo	50.00%
VI.	**Motor Vehicle Licensing Fees - Assumptions**	
	Vehicle Licensing Fees per Capita	NA
VII.	**Property Tax In-Lieu of Vehicle License Fee - Assumptions**	
	Total City of Vallejo Gross Assessed Value [7]	$9,126,502,971
	City of Vallejo Property Tax In-Lieu of Vehicle License Fee [8]	$10,263,252
	Property Tax In-Lieu of Vehicle License Fee Increase per $1,000 Assessed Value	$1.12

Fiscal Impact Calculation

VIII.	**Fiscal Impact Category**	**Fiscal Impact Amount**
A.	**Secured Property Tax**	
	Residential Land Uses	
	Single Family Detached (Traditional, Front-loaded)	$101,286
	Single Family Detached (Private Courtyard/Alley-loaded)	$108,353
	Non-Residential Land Uses	
	Commercial Land Uses	
	Retail (Fairview at Northgate, Total Project)	$20,654
	Retail (Re-tenanting of Existing Site)	$47,756
B.	**Unsecured Property Tax**	
	Residential Land Uses	
	Single Family Detached (Traditional, Front-loaded)	$2,785
	Single Family Detached (Private Courtyard/Alley-loaded)	$2,980
	Non-Residential Land Uses	
	Commercial Land Uses	
	Retail (Fairview at Northgate, Total Project)	$2,065
	Retail (Re-tenanting of Existing Site)	$4,776
C.	**Property Transfer Tax**	

EXHIBIT A-4
VALLEJO, CALIFORNIA
PROPERTY TAX REVENUE ANALYSIS

	Residential Land Uses	
	Single Family Detached (Traditional, Front-loaded)	$2,926
	Single Family Detached (Private Courtyard/Alley-loaded)	$3,131
	Non-Residential Land Uses	
	Commercial Land Uses	
	Retail (Fairview at Northgate, Total Project)	$298
	Retail (Re-tenanting of Existing Site)	$690
D.	**Motor Vehicle Licensing Fees [8]**	$0
E.	**Property Tax In-Lieu of Vehicle License Fee [9]**	
	Projected Residential and Non-Residential Land Uses	$163,782
	Residential	*$123,486*
	Non-Residential (Retail, Office, and Restaurant)	*$40,296*

Total Property Tax Revenues	**$461,482**
Residential	*$344,947*
Non-Residential	*$116,535*

NOTES:

[1] Based on "General Fund" levy for Tax Rate Area (TRA). Data provided by the County of Solano Auditor-Controller-Treasurer-Tax Collector's Office. TRA allocations adjusted for ERAF. Note, figure does not include non-General Funds. Estimate, subject to change.

[2] Please see Exhibit A-3. Subject to change.

[3] Estimated prices based on examination of current for-sale listings for newly constructed dwelling units in the City of Vallejo.

[4] Based on typical DTA baseline assumptions.

[5] Source: California Revenue & Taxation Code §11901, et seq.; Vallejo Municipal Code §3.08.020.

[6] Source: City of Vallejo Comprehensive Annual Financial Report for Fiscal Year 2016-2017.

[7] Source: City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

[8] City of Vallejo no longer receives motor vehicle licensing fees.

[9] Property Tax in-lieu of Vehicle Licensing Fees applies to incremental property value.

* ***All figures subject to rounding***

DAVID TAUSSIG & ASSOCIATES

EXHIBIT A-5
VALLEJO, CALIFORNIA
SALES TAX REVENUE ANALYSIS

INDIRECT SALES TAX ASSUMPTIONS

I. Residential Indirect Sales Tax Assumptions

A. Mortgage Assumptions

Projected Residential Units	
Single-Family Residential and Multi-family	
Projected Sales Price per Unit	$625,000
Average Mortgage (20% Down Payment) [1]	$500,000
Annual Mortgage Payment (5% for 30 Years) [2]	$32,209
Additional Annual Taxes & Insurance (2.00%)	$12,500

B. Disposable Income Assumptions

Projected Residential Units	
Single-Family Residential and Multi-family	
Average Household Income (3:1 Income to Household Payment Ratio) [1]	$134,127.89
Retail Taxable Expenditures (as a % of Disposable Income) [3]	21.82%

C. Other Indirect Sales Tax Assumptions

Employees (annual spending per employee) [4]	$9,370
Retail Taxable Sales Capture	
City of Vallejo Retail Taxable Purchase Capture [5]	85%
Other Sales Tax Assumptions	
% to the City of Vallejo [6]	1.00%
Measure B [6]	1.00%

DIRECT SALES TAX ASSUMPTIONS

II. Non-Residential Direct Sales Tax Assumptions

A. Taxable Sales per Sq. Ft. [7]

Non-Residential	
Retail (Fairview at Northgate, Costco - Expansion)	$1,098
Retail (Fairview at Northgate, Other Retail Pads)	$300
Retail (Re-tenanting of Existing Site)	$300

B. Displaced Taxable Sales

Displaced Existing Taxable Sales within the City of Vallejo [8]	20%

FISCAL IMPACT CALCULATION

III. Fiscal Impact Category	**Fiscal Impact Amount**
A. Indirect Sales Tax	
Projected Residential Land Uses	
Single Family Detached (Traditional, Front-loaded)	$42,794
Single Family Detached (Private Courtyard/Alley-loaded)	$45,780
Employee Taxable Sales	$70,484
B. Direct Sales Tax [7]	
Projected Non-Residential Land Uses	
Commercial Land Uses	
Retail (Fairview at Northgate, Costco - Expansion)	$469,083
Retail (Fairview at Northgate, Other Retail Pads)	$132,240
Retail (Re-tenanting of Existing Site)	$602,098

Total Sales Tax Revenues	**$1,362,479**
Residential	*$88,574*
Non-Residential	*$1,273,905*

NOTES:

[1] DTA estimate. Subject to change.

[2] DTA estimate. Annual payment includes principal, interest, property taxes, and homeowner's insurance.

[3] Source: BOE *2015 Consumer Expenditure Survey*.

[4] Source: "Office Worker Retail Spending Patterns: A Downtown and Suburban Area Study," ICSC (2012). Adjusted for inflation assuming 3% annual inflation rate.

[5] Estimate, subject to change.

[6] Source: Vallejo Municipal Code. Measure B charge of additional 1.00%, passed in November 2011. Measure B was extended into perpetuity by Measure V, passed on November 8, 2016.

[7] Based on the median sales per sq. ft. figure for retail centers as outlined in "Dollars and Cents of Shopping Centers" (2008) published by the Urban Land Institute.

[8] Source: DTA's Economic Impact Analysis (Phase I)

* ***All figures subject to rounding***

DAVID TAUSSIG & ASSOCIATES

EXHIBIT A-6
VALLEJO, CALIFORNIA
INVESTMENT INCOME REVENUES ANALYSIS

ASSUMPTIONS

I. Investment Income Assumptions

Investment Period for Recurring Non-Interest General Fund Revenues	12 Months
Local Agency Investment Fund (LAIF) Rate of Return [1]	1.0%
Local Agency Investment Fund (LAIF) Percentage of Earnings Cost [2]	50.00%

FISCAL IMPACT CALCULATION

II. Fiscal Impact Category	Residential Fiscal Impact	Non-Residential Fiscal Impact (Employees)	Fiscal Impact Amount
Total Property Tax Revenues (Exhibit 4)	$344,947	$116,535	$461,482
Total Sales Tax Revenues (Exhibit 5)	$88,574	$1,273,905	$1,362,479
Total Multiplier Revenues (Exhibit 7)	$74,521	$41,128	$115,649
Projected Recurring General Fund Revenues Available for Investment	**$508,042**	**$1,431,568**	**$1,939,610**
Plus: Investment Income (Less Earnings Cost)	$2,515	$7,086	$9,601
Total Recurring General Fund Revenues	**$510,557**	**$1,438,654**	**$1,949,211**

NOTES:

[1] Based on City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

[2] Assumed Administrative Earnings Costs. Subject to change.

* ***All figures subject to rounding***

DAVID TAUSSIG & ASSOCIATES

EXHIBIT A-7
VALLEJO, CALIFORNIA
MULTIPLIER REVENUE SOURCES ANALYSIS

ASSUMPTIONS

I. **Multiplier Revenues**

Revenue Category	Multiplier Factor [1]	Revenue Projection Basis
Transient Occupancy Tax	$14.58	Persons Served
Franchise Taxes	$33.85	Persons Served
Utility User Tax	$63.75	Persons Served
Medical Marijuana Tax	$16.15	Persons Served
Business Licenses	$20.14	Per Employee
Revenue from Use of Assets (Rentals)	$7.77	Persons Served
Miscellaneous Revenues	$9.52	Persons Served

FISCAL IMPACT CALCULATION

II. Fiscal Impact Category	Residential Fiscal Impact	Non-Residential Fiscal Impact (Employees)	Fiscal Impact Amount
Transient Occupancy Tax	$7,461	$3,226	$10,687
Franchise Taxes	$17,323	$7,489	$24,812
Utility User Tax	$32,624	$14,104	$46,728
Medical Marijuana Tax	$8,265	$3,573	$11,838
Business Licenses	$0	$8,911	$8,911
Revenue from Use of Assets (Rentals)	$3,976	$1,719	$5,695
Miscellaneous Revenues	$4,872	$2,106	$6,978
Total Multiplier Revenues	**$74,521**	**$41,128**	**$115,649**

NOTES:

[1] Based on City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

* ***All figures subject to rounding***

DAVID TAUSSIG & ASSOCIATES

EXHIBIT A-8
VALLEJO, CALIFORNIA
MULTIPLIER EXPENDITURES ANALYSIS

ASSUMPTIONS

I. **Multiplier Expenditures**

Expenditure Category	Multiplier Factor [1]	Expenditure Projection Basis
Police	$309.53	Persons Served
Fire	$175.62	Persons Served
Public Works	$54.53	Persons Served
Infrastructure Maintenance	$4.21	Persons Served
Planning & Development Services	$12.97	Persons Served

FISCAL IMPACT CALCULATION

II. Fiscal Impact Category	Residential Fiscal Impact	Non-Residential Fiscal Impact (Employees)	Fiscal Impact Amount
Police	$158,402	$68,478	$226,880
Fire	$89,874	$38,853	$128,727
Public Works	$27,906	$12,064	$39,970
Infrastructure Maintenance	$2,154	$931	$3,085
Planning & Development Services	$6,637	$2,869	$9,506
Total Multiplier Expenditures	**$284,973**	**$123,195**	**$408,168**

NOTES:

[1] Based on City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

* ***All figures subject to rounding***

DAVID TAUSSIG & ASSOCIATES

EXHIBIT A-9
VALLEJO, CALIFORNIA
CASE STUDY EXPENDITURES ANALYSIS

Open Space, Greenspace, and Public Road Maintenance

		Fiscal Impact Amount
I.	**Estimated Additional Maintenance Requirements [1]**	
	Estimated Acres of Open Space (Preservation Area)	5.7
	Estimated Acres of Basins/Greenspace	5.5
	Estimated Lane Miles of Public Roads	2.1
II.	**Estimated Annual Costs [2]**	
	Open Space/Slope Maintenance per Acre	$5,164
	Basin/Lake Maintenance per Acre	$5,164
	Roadway Maintenance Costs per Lane Mile	$7,834

	Residential Fiscal Impact	Non-Residential Fiscal Impact (Employees)
Open Space (Preservation Area)	100%	0%
Basins/Greenspace	100%	0%
Public Roads	10%	90%

III.	**Estimated Annual Maintenance**			
	Open Space (Preservation Area)	$29,434	$0	$29,434
	Basins/Greenspace	$28,401	$0	$28,401
	Public Roads	$1,675	$15,073	$16,748
	Total Open Space, Greenspace, and Public Road Maintenance Costs	**$59,510**	**$15,073**	**$74,584**

NOTES:

[1] Source: Project Proponent.

[2] Based on data obtained from the DTA Public Works database, in concert with research from the Engineering News-Record.

* ***All figures subject to rounding***

DAVID TAUSSIG & ASSOCIATES

EXHIBIT A-10
VALLEJO, CALIFORNIA
GENERAL GOVERNMENT EXPENDITURES ANALYSIS

ASSUMPTIONS

Total Recurring General Fund Expenditures (excluding General Government Overhead) [1]	$85,277,067
Recurring General Government Overhead Expenditures (as a % of Total Recurring General Fund Expenditures) [2]	13.8%
Marginal Increase in General Government Costs	75%

FISCAL IMPACT CALCULATION

I. Fiscal Impact Category	Residential Fiscal Impact	Non-Residential Fiscal Impact (Employees)	Fiscal Impact Amount
Total Multiplier Expenditures (Exhibit 8)	$284,973	$123,195	$408,168
Total Open Space, Greenspace, and Public Road Maintenance Expenditures (Exhibit 9)	$59,510	$15,073	$74,584
Projected Recurring General Fund Expenditures	$344,483	$138,268	**$482,752**
Plus: General Government Costs	$35,749	$14,349	$50,098
Total Recurring Expenditures	**$380,232**	**$152,617**	**$532,850**

NOTES:

[1] Based on City of Vallejo Fiscal Year 2018/2019 Adopted Budget.

[2] General Government Overhead Expenditures defined as costs for City Council, City Manager, Legal, etc.

* ***All figures subject to rounding***

DAVID TAUSSIG & ASSOCIATES

EXHIBIT A-11
VALLEJO, CALIFORNIA
NET FISCAL IMPACT SUMMARY

RECURRING GENERAL FUND REVENUES [1]	AMOUNT	PERCENT OF TOTAL
Secured Property Tax	**$278,049**	14.26%
Residential	$209,639	10.76%
Non-Residential	$68,410	3.51%
Unsecured Property Tax	**$12,606**	0.65%
Residential	$5,765	0.30%
Non-Residential	$6,841	0.35%
Property Transfer Tax	**$7,045**	0.36%
Residential	$6,057	0.31%
Non-Residential	$988	0.05%
Motor Vehicle Licensing Fees	**$0**	0.00%
Residential	$0	0.00%
Non-Residential	$0	0.00%
Property Tax In-Lieu of Vehicle License Fee	**$163,782**	8.40%
Residential	$123,486	6.34%
Non-Residential	$40,296	2.07%
Direct Sales Tax	**$1,203,421**	61.74%
Residential	$0	0.00%
Non-Residential	$1,203,421	61.74%
Indirect Sales Tax	**$159,058**	8.16%
Residential	$88,574	4.54%
Non-Residential (Employee Taxable Sales)	$70,484	3.62%
Transient Occupancy Tax	**$10,687**	0.55%
Residential	$7,461	0.38%
Non-Residential	$3,226	0.17%
Franchise Taxes	**$24,812**	1.27%
Residential	$17,323	0.89%
Non-Residential	$7,489	0.38%
Utility User Tax	**$46,728**	2.40%
Residential	$32,624	1.67%
Non-Residential	$14,104	0.72%
Medical Marijuana Tax	**$11,838**	0.61%
Residential	$8,265	0.42%
Non-Residential	$3,573	0.18%
Business Licenses	**$8,911**	0.46%
Residential	$0	0.00%
Non-Residential	$8,911	0.46%
Revenue from Use of Assets (Rentals)	**$5,695**	0.29%
Residential	$3,976	0.20%
Non-Residential	$1,719	0.09%
Miscellaneous Revenues	**$6,978**	0.36%
Residential	$4,872	0.25%
Non-Residential	$2,106	0.11%
Investment Income	**$9,601**	0.49%
Residential	$2,515	0.13%
Non-Residential	$7,086	0.36%
Total Recurring General Fund Revenues	**$1,949,211**	**100.00%**
Residential	*$510,557*	*25.99%*
Non-Residential	*$1,438,654*	*73.72%*

EXHIBIT A-11
VALLEJO, CALIFORNIA
NET FISCAL IMPACT SUMMARY

RECURRING GENERAL FUND EXPENDITURES [2]	AMOUNT	PERCENT OF TOTAL
Police	**$226,880**	42.58%
Residential	$158,402	29.73%
Non-Residential	$68,478	12.85%
Fire	**$128,727**	24.16%
Residential	$89,874	16.87%
Non-Residential	$38,853	7.29%
Public Works	**$39,970**	7.50%
Residential	$27,906	5.24%
Non-Residential	$12,064	2.26%
Infrastructure Maintenance	**$3,085**	0.58%
Residential	$2,154	0.40%
Non-Residential	$931	0.17%
Planning & Development Services	**$9,506**	1.78%
Residential	$6,637	1.25%
Non-Residential	$2,869	0.54%
General Government	**$50,098**	9.40%
Residential	$35,749	6.71%
Non-Residential	$14,349	2.69%
Open Space, Greenspace, and Public Road Maintenance	**$74,584**	14.00%
Residential	$59,510	11.17%
Non-Residential	$15,073	2.83%
Total Recurring General Fund Expenditures	**$532,850**	**100%**
Residential	*$380,232*	*71%*
Non-Residential	*$152,617*	*29%*

NET FISCAL IMPACT	
Total Annual Recurring General Fund Surplus/(Deficit)	**$1,416,361**
Residential	$130,325
Non-Residential	$1,286,037
Total Annual Revenue/Expenditure Ratio	**3.66**
Residential	1.34
Non-Residential	9.43
Total Fiscal Surplus/(Deficit)	
Residential (per Unit)	**$732.16**
Non-Residential (per Sq. Ft.)	$7.16

NOTES:

[1] Please see Exhibits 4-7 for the derivation of these calculations.

[2] Please see Exhibits 8-10 for the derivation of these calculations.

* ***All figures subject to rounding***

Appendix C

Air Quality and Greenhouse Gas Study Modeling Data; and Climate Action Plan Checklist

Fairview at Northgate

Solano-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,924.00	Space	17.52	769,600.00	0
City Park	5.70	Acre	5.70	248,292.00	0
Single Family Housing	178.00	Dwelling Unit	23.80	320,400.00	513
Discount Club	152.14	1000sqft	3.49	152,138.00	205
Gasoline/Service Station	30.00	Pump	0.10	4,235.00	0
Strip Mall	30.00	1000sqft	0.69	30,000.00	32

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	56
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	171	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per PG&E 2019 Sustainability Report.

Land Use - Acreages and population adjusted to match site

Construction Phase - Anticipated schedule. Trenching includes 9 months for PG&E work and 2 months for project utilities.

Off-road Equipment - anticipated equipment

Off-road Equipment - anticipated equipment

Off-road Equipment - No demolition expected

Off-road Equipment - Anticipated equipment

Off-road Equipment - anticipated equipment

Off-road Equipment -

Off-road Equipment - Anticipated Equipment used

Off-road Equipment - Anticipated equipment

Trips and VMT -

Demolition -

Grading - Site is 51.3 acres. Conservatively anticipated incidental export
Site is balanced

Vehicle Trips - Per Trip Generation table. City park is open space (not active park). Gas station trips incorporated into Discount Club trips. Discount Club C-NW trip length weighted for delivery trucks from the Tracy Depot and fuel trucks from Martinez fuel facility

Woodstoves - No wood burning

Energy Use - Update per 2019 T24.

Water And Wastewater - City park is proxy for Wetland area and Open Space, would not be irrigated

Solid Waste - City park is proxy for Wetland area and Open Space, would not generate waste

Operational Off-Road Equipment - Anticipated Costco Equipment

Construction Off-road Equipment Mitigation - Per BAAQMD Basic Control Measures

Mobile Land Use Mitigation - Per TIA MM TRA-8

Energy Mitigation - Compliance with 2019 T24

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	144.00
tblConstructionPhase	NumDays	1,110.00	520.00
tblConstructionPhase	NumDays	70.00	0.00
tblConstructionPhase	NumDays	110.00	33.00
tblConstructionPhase	NumDays	75.00	23.00

tblConstructionPhase	NumDays	40.00	11.00
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	LightingElect	3.08	2.16
tblEnergyUse	LightingElect	0.35	0.25
tblEnergyUse	LightingElect	1,608.84	756.15
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	NT24E	2.68	1.88
tblEnergyUse	NT24E	3.70	2.59
tblEnergyUse	NT24E	6,155.97	2,893.31
tblEnergyUse	NT24E	2.68	1.88
tblEnergyUse	T24E	2.76	1.93
tblEnergyUse	T24E	1.48	1.04
tblEnergyUse	T24E	325.76	153.11
tblEnergyUse	T24E	2.76	1.93
tblFireplaces	NumberGas	44.50	163.76
tblFireplaces	NumberWood	76.54	0.00
tblGrading	MaterialExported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	152,140.00	152,138.00
tblLandUse	LandUseSquareFeet	4,235.25	4,235.00
tblLandUse	LotAcreage	17.32	17.52
tblLandUse	LotAcreage	57.79	23.80
tblLandUse	Population	509.00	513.00
tblLandUse	Population	0.00	205.00
tblLandUse	Population	0.00	32.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching/Utility Work
tblOffRoadEquipment	PhaseName		Trenching/Utility Work
tblOffRoadEquipment	PhaseName		Trenching/Utility Work
tblOffRoadEquipment	PhaseName		Trenching/Utility Work
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171
tblSolidWaste	SolidWasteGenerationRate	0.49	0.00
tblVehicleTrips	CNW_TL	7.30	10.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	53.75	56.33
tblVehicleTrips	ST_TR	168.56	0.00
tblVehicleTrips	ST_TR	9.91	9.50
tblVehicleTrips	ST_TR	42.04	42.67
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	33.67	51.97
tblVehicleTrips	SU_TR	168.56	0.00
tblVehicleTrips	SU_TR	8.62	9.50
tblVehicleTrips	SU_TR	20.43	42.67
tblVehicleTrips	WD_TR	1.89	0.00

tblVehicleTrips	WD_TR	41.80	53.23
tblVehicleTrips	WD_TR	168.56	0.00
tblVehicleTrips	WD_TR	9.52	9.50
tblVehicleTrips	WD_TR	44.32	42.67
tblWater	OutdoorWaterUseRate	6,791,443.69	0.00
tblWoodstoves	NumberCatalytic	7.12	0.00
tblWoodstoves	NumberNoncatalytic	7.12	0.00

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	0.2470	2.7342	1.7499	3.5800e-003	0.4305	0.1222	0.5527	0.1811	0.1124	0.2935	0.0000	316.8180	316.8180	0.0927	0.0000	319.1349
2021	0.3291	2.8712	2.6307	5.9300e-003	0.1413	0.1361	0.2774	0.0382	0.1259	0.1641	0.0000	531.9838	531.9838	0.1031	0.0000	534.5606
2022	0.6226	5.6543	5.3404	0.0183	0.7539	0.1546	0.9086	0.2048	0.1462	0.3510	0.0000	1,668.5002	1,668.5002	0.1426	0.0000	1,672.0660
2023	3.9220	4.3073	4.8182	0.0162	0.6950	0.1254	0.8204	0.1884	0.1194	0.3078	0.0000	1,475.0264	1,475.0264	0.1139	0.0000	1,477.8729
Maximum	**3.9220**	**5.6543**	**5.3404**	**0.0183**	**0.7539**	**0.1546**	**0.9086**	**0.2048**	**0.1462**	**0.3510**	**0.0000**	**1,668.5002**	**1,668.5002**	**0.1426**	**0.0000**	**1,672.0660**

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	0.2470	2.7342	1.7499	3.5800e-003	0.1936	0.1222	0.3158	0.0800	0.1124	0.1924	0.0000	316.8177	316.8177	0.0927	0.0000	319.1346
2021	0.3291	2.8712	2.6307	5.9300e-003	0.1342	0.1361	0.2703	0.0365	0.1259	0.1624	0.0000	531.9835	531.9835	0.1031	0.0000	534.5603
2022	0.6226	5.6543	5.3404	0.0183	0.7166	0.1546	0.8713	0.1956	0.1462	0.3418	0.0000	1,668.4997	1,668.4997	0.1426	0.0000	1,672.0655
2023	3.9220	4.3073	4.8182	0.0162	0.6605	0.1254	0.7859	0.1800	0.1194	0.2993	0.0000	1,475.0259	1,475.0259	0.1139	0.0000	1,477.8724
Maximum	**3.9220**	**5.6543**	**5.3404**	**0.0183**	**0.7166**	**0.1546**	**0.8713**	**0.1956**	**0.1462**	**0.3418**	**0.0000**	**1,668.4997**	**1,668.4997**	**0.1426**	**0.0000**	**1,672.0655**

	ROG	NOx	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**	**15.63**	**0.00**	**12.34**	**19.67**	**0.00**	**10.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2020**	**11-30-2020**	2.6904	2.6904
2	**12-1-2020**	**2-28-2021**	0.6209	0.6209
3	**3-1-2021**	**5-31-2021**	0.6122	0.6122
4	**6-1-2021**	**8-31-2021**	0.6121	0.6121
5	**9-1-2021**	**11-30-2021**	0.9937	0.9937
6	**12-1-2021**	**2-28-2022**	1.6086	1.6086
7	**3-1-2022**	**5-31-2022**	1.5839	1.5839
8	**6-1-2022**	**8-31-2022**	1.5782	1.5782
9	**9-1-2022**	**11-30-2022**	1.5724	1.5724
10	**12-1-2022**	**2-28-2023**	1.4091	1.4091
11	**3-1-2023**	**5-31-2023**	1.9267	1.9267
12	**6-1-2023**	**8-31-2023**	3.0565	3.0565

13	**9-1-2023**	**9-30-2023**	0.9967	0.9967
		Highest	3.0565	3.0565

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	2.4138	0.0331	1.3492	1.8000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	22.6409	22.6409	2.5700e-003	3.7000e-004	22.8168
Energy	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	480.0777	480.0777	0.0355	0.0117	484.4624
Mobile	2.5370	13.0376	23.8954	0.0932	7.1950	0.0672	7.2621	1.9278	0.0626	1.9904	0.0000	8,584.9383	8,584.9383	0.3621	0.0000	8,593.9898
Offroad	0.1123	1.0509	1.2536	1.6700e-003		0.0649	0.0649		0.0597	0.0597	0.0000	147.0490	147.0490	0.0476	0.0000	148.2380
Waste						0.0000	0.0000		0.0000	0.0000	186.2320	0.0000	186.2320	11.0060	0.0000	461.3820
Water						0.0000	0.0000		0.0000	0.0000	8.0860	14.9931	23.0791	0.8331	0.0201	49.9059
Total	**5.0939**	**14.3866**	**26.6220**	**0.0967**	**7.1950**	**0.1622**	**7.3572**	**1.9278**	**0.1525**	**2.0802**	**194.3180**	**9,249.6989**	**9,444.0170**	**12.2868**	**0.0322**	**9,760.7948**

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	2.3920	0.0122	1.0161	5.0000e-005		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003	0.0000	1.5313	1.5313	1.1300e-003	0.0000	1.5596
Energy	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	477.7567	477.7567	0.0351	0.0117	482.1073
Mobile	2.0720	10.2236	14.0255	0.0439	2.7074	0.0321	2.7395	0.7254	0.0299	0.7553	0.0000	4,060.5587	4,060.5587	0.2399	0.0000	4,066.5559
Offroad	0.1123	1.0509	1.2536	1.6700e-003		0.0649	0.0649		0.0597	0.0597	0.0000	147.0490	147.0490	0.0476	0.0000	148.2380
Waste						0.0000	0.0000		0.0000	0.0000	46.5580	0.0000	46.5580	2.7515	0.0000	115.3455
Water						0.0000	0.0000		0.0000	0.0000	6.4688	12.5916	19.0604	0.6665	0.0161	40.5307
Total	**4.6070**	**11.5517**	**16.4190**	**0.0473**	**2.7074**	**0.1238**	**2.8313**	**0.7254**	**0.1164**	**0.8418**	**53.0268**	**4,699.4873**	**4,752.5141**	**3.7418**	**0.0278**	**4,854.3368**

	ROG	NOx	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	**9.56**	**19.71**	**38.33**	**51.06**	**62.37**	**23.66**	**61.52**	**62.37**	**23.67**	**59.53**	**72.71**	**49.19**	**49.68**	**69.55**	**13.83**	**50.27**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-172.8310
Total	**-172.8310**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2020	8/31/2020	5	0	
2	Site Preparation	Site Preparation	9/1/2020	9/15/2020	5	11	
3	Grading	Grading	9/16/2020	10/30/2020	5	33	
4	Trenching/Utility Work	Trenching	10/31/2020	10/1/2021	5	240	
5	Paving	Paving	10/2/2021	11/3/2021	5	23	
6	Building Construction	Building Construction	11/4/2021	11/1/2023	5	520	
7	Architectural Coating	Architectural Coating	5/1/2023	11/16/2023	5	144	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 214.5

Acres of Paving: 17.52

Residential Indoor: 648,810; Residential Outdoor: 216,270; Non-Residential Indoor: 279,560; Non-Residential Outdoor: 93,187; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	3	8.00	187	0.41

Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	5	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching/Utility Work	Excavators	1	8.00	158	0.38
Trenching/Utility Work	Rubber Tired Loaders	1	8.00	203	0.36
Trenching/Utility Work	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching/Utility Work	Trenchers	2	8.00	78	0.50
Paving	Pavers	3	8.00	130	0.42
Paving	Paving Equipment	3	8.00	132	0.36
Paving	Rollers	3	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	3	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	11	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	11	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	18	45.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Utility Work	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	551.00	216.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	110.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 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					0.0994	0.0000	0.0994	0.0546	0.0000	0.0546	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0270	0.2796	0.1685	2.8000e-004		0.0150	0.0150		0.0138	0.0138	0.0000	24.3896	24.3896	7.8900e-003	0.0000	24.5868
Total	**0.0270**	**0.2796**	**0.1685**	**2.8000e-004**	**0.0994**	**0.0150**	**0.1144**	**0.0546**	**0.0138**	**0.0684**	**0.0000**	**24.3896**	**24.3896**	**7.8900e-003**	**0.0000**	**24.5868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	7.9000e-004	7.7500e-003	2.0000e-005	4.5600e-003	2.0000e-005	4.5800e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	2.2248	2.2248	6.0000e-005	0.0000	2.2262
Total	**1.1200e-003**	**7.9000e-004**	**7.7500e-003**	**2.0000e-005**	**4.5600e-003**	**2.0000e-005**	**4.5800e-003**	**1.1700e-003**	**2.0000e-005**	**1.1900e-003**	**0.0000**	**2.2248**	**2.2248**	**6.0000e-005**	**0.0000**	**2.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0425	0.0000	0.0425	0.0234	0.0000	0.0234	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0270	0.2796	0.1685	2.8000e-004		0.0150	0.0150		0.0138	0.0138	0.0000	24.3896	24.3896	7.8900e-003	0.0000	24.5868
Total	**0.0270**	**0.2796**	**0.1685**	**2.8000e-004**	**0.0425**	**0.0150**	**0.0575**	**0.0234**	**0.0138**	**0.0372**	**0.0000**	**24.3896**	**24.3896**	**7.8900e-003**	**0.0000**	**24.5868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	7.9000e-004	7.7500e-003	2.0000e-005	4.3100e-003	2.0000e-005	4.3200e-003	1.1100e-003	2.0000e-005	1.1200e-003	0.0000	2.2248	2.2248	6.0000e-005	0.0000	2.2262
Total	**1.1200e-003**	**7.9000e-004**	**7.7500e-003**	**2.0000e-005**	**4.3100e-003**	**2.0000e-005**	**4.3200e-003**	**1.1100e-003**	**2.0000e-005**	**1.1200e-003**	**0.0000**	**2.2248**	**2.2248**	**6.0000e-005**	**0.0000**	**2.2262**

3.4 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					0.3128	0.0000	0.3128	0.1216	0.0000	0.1216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1711	1.9548	1.2076	2.4100e-003		0.0826	0.0826		0.0760	0.0760	0.0000	211.3778	211.3778	0.0684	0.0000	213.0869
Total	**0.1711**	**1.9548**	**1.2076**	**2.4100e-003**	**0.3128**	**0.0826**	**0.3954**	**0.1216**	**0.0760**	**0.1976**	**0.0000**	**211.3778**	**211.3778**	**0.0684**	**0.0000**	**213.0869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5800e-003	0.0865	0.0149	2.5000e-004	5.3200e-003	3.0000e-004	5.6200e-003	1.4600e-003	2.9000e-004	1.7500e-003	0.0000	23.9688	23.9688	9.4000e-004	0.0000	23.9923
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-003	1.9000e-003	0.0187	6.0000e-005	5.9000e-003	4.0000e-005	5.9400e-003	1.5700e-003	4.0000e-005	1.6100e-003	0.0000	5.3634	5.3634	1.3000e-004	0.0000	5.3668
Total	**5.2800e-003**	**0.0884**	**0.0336**	**3.1000e-004**	**0.0112**	**3.4000e-004**	**0.0116**	**3.0300e-003**	**3.3000e-004**	**3.3600e-003**	**0.0000**	**29.3322**	**29.3322**	**1.0700e-003**	**0.0000**	**29.3590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1337	0.0000	0.1337	0.0520	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1711	1.9548	1.2076	2.4100e-003		0.0826	0.0826		0.0760	0.0760	0.0000	211.3776	211.3776	0.0684	0.0000	213.0867
Total	**0.1711**	**1.9548**	**1.2076**	**2.4100e-003**	**0.1337**	**0.0826**	**0.2163**	**0.0520**	**0.0760**	**0.1280**	**0.0000**	**211.3776**	**211.3776**	**0.0684**	**0.0000**	**213.0867**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5800e-003	0.0865	0.0149	2.5000e-004	5.0800e-003	3.0000e-004	5.3800e-003	1.4000e-003	2.9000e-004	1.6900e-003	0.0000	23.9688	23.9688	9.4000e-004	0.0000	23.9923
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-003	1.9000e-003	0.0187	6.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5300e-003	0.0000	5.3634	5.3634	1.3000e-004	0.0000	5.3668
Total	**5.2800e-003**	**0.0884**	**0.0336**	**3.1000e-004**	**0.0107**	**3.4000e-004**	**0.0110**	**2.8900e-003**	**3.3000e-004**	**3.2200e-003**	**0.0000**	**29.3322**	**29.3322**	**1.0700e-003**	**0.0000**	**29.3590**

3.5 Trenching/Utility Work - 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	0.0413	0.4098	0.3242	5.4000e-004		0.0242	0.0242		0.0222	0.0222	0.0000	47.1098	47.1098	0.0152	0.0000	47.4907
Total	**0.0413**	**0.4098**	**0.3242**	**5.4000e-004**		**0.0242**	**0.0242**		**0.0222**	**0.0222**	**0.0000**	**47.1098**	**47.1098**	**0.0152**	**0.0000**	**47.4907**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	8.4000e-004	8.3000e-003	3.0000e-005	2.6200e-003	2.0000e-005	2.6400e-003	7.0000e-004	2.0000e-005	7.1000e-004	0.0000	2.3837	2.3837	6.0000e-005	0.0000	2.3852
Total	**1.2000e-003**	**8.4000e-004**	**8.3000e-003**	**3.0000e-005**	**2.6200e-003**	**2.0000e-005**	**2.6400e-003**	**7.0000e-004**	**2.0000e-005**	**7.1000e-004**	**0.0000**	**2.3837**	**2.3837**	**6.0000e-005**	**0.0000**	**2.3852**

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	0.0413	0.4098	0.3242	5.4000e-004		0.0242	0.0242		0.0222	0.0222	0.0000	47.1098	47.1098	0.0152	0.0000	47.4907
Total	**0.0413**	**0.4098**	**0.3242**	**5.4000e-004**		**0.0242**	**0.0242**		**0.0222**	**0.0222**	**0.0000**	**47.1098**	**47.1098**	**0.0152**	**0.0000**	**47.4907**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	8.4000e-004	8.3000e-003	3.0000e-005	2.4800e-003	2.0000e-005	2.5000e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.3837	2.3837	6.0000e-005	0.0000	2.3852
Total	**1.2000e-003**	**8.4000e-004**	**8.3000e-003**	**3.0000e-005**	**2.4800e-003**	**2.0000e-005**	**2.5000e-003**	**6.6000e-004**	**2.0000e-005**	**6.8000e-004**	**0.0000**	**2.3837**	**2.3837**	**6.0000e-005**	**0.0000**	**2.3852**

3.5 Trenching/Utility Work - 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	0.1677	1.6496	1.4312	2.3900e-003		0.0948	0.0948		0.0872	0.0872	0.0000	209.9082	209.9082	0.0679	0.0000	211.6054
Total	**0.1677**	**1.6496**	**1.4312**	**2.3900e-003**		**0.0948**	**0.0948**		**0.0872**	**0.0872**	**0.0000**	**209.9082**	**209.9082**	**0.0679**	**0.0000**	**211.6054**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9500e-003	3.3500e-003	0.0337	1.1000e-004	0.0117	8.0000e-005	0.0118	3.1000e-003	7.0000e-005	3.1800e-003	0.0000	10.2431	10.2431	2.4000e-004	0.0000	10.2490
Total	**4.9500e-003**	**3.3500e-003**	**0.0337**	**1.1000e-004**	**0.0117**	**8.0000e-005**	**0.0118**	**3.1000e-003**	**7.0000e-005**	**3.1800e-003**	**0.0000**	**10.2431**	**10.2431**	**2.4000e-004**	**0.0000**	**10.2490**

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	0.1677	1.6496	1.4312	2.3900e-003		0.0948	0.0948		0.0872	0.0872	0.0000	209.9080	209.9080	0.0679	0.0000	211.6052
Total	**0.1677**	**1.6496**	**1.4312**	**2.3900e-003**		**0.0948**	**0.0948**		**0.0872**	**0.0872**	**0.0000**	**209.9080**	**209.9080**	**0.0679**	**0.0000**	**211.6052**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9500e-003	3.3500e-003	0.0337	1.1000e-004	0.0111	8.0000e-005	0.0112	2.9600e-003	7.0000e-005	3.0300e-003	0.0000	10.2431	10.2431	2.4000e-004	0.0000	10.2490
Total	**4.9500e-003**	**3.3500e-003**	**0.0337**	**1.1000e-004**	**0.0111**	**8.0000e-005**	**0.0112**	**2.9600e-003**	**7.0000e-005**	**3.0300e-003**	**0.0000**	**10.2431**	**10.2431**	**2.4000e-004**	**0.0000**	**10.2490**

3.6 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	0.0217	0.2229	0.2528	3.9000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	34.5405	34.5405	0.0112	0.0000	34.8198
Paving	0.0230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0446**	**0.2229**	**0.2528**	**3.9000e-004**		**0.0117**	**0.0117**		**0.0108**	**0.0108**	**0.0000**	**34.5405**	**34.5405**	**0.0112**	**0.0000**	**34.8198**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.2100e-003	0.0121	4.0000e-005	7.8300e-003	3.0000e-005	7.8600e-003	2.0100e-003	3.0000e-005	2.0300e-003	0.0000	3.6861	3.6861	9.0000e-005	0.0000	3.6883
Total	**1.7800e-003**	**1.2100e-003**	**0.0121**	**4.0000e-005**	**7.8300e-003**	**3.0000e-005**	**7.8600e-003**	**2.0100e-003**	**3.0000e-005**	**2.0300e-003**	**0.0000**	**3.6861**	**3.6861**	**9.0000e-005**	**0.0000**	**3.6883**

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	0.0217	0.2229	0.2528	3.9000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	34.5405	34.5405	0.0112	0.0000	34.8197
Paving	0.0230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0446**	**0.2229**	**0.2528**	**3.9000e-004**		**0.0117**	**0.0117**		**0.0108**	**0.0108**	**0.0000**	**34.5405**	**34.5405**	**0.0112**	**0.0000**	**34.8197**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.2100e-003	0.0121	4.0000e-005	7.4000e-003	3.0000e-005	7.4300e-003	1.9000e-003	3.0000e-005	1.9300e-003	0.0000	3.6861	3.6861	9.0000e-005	0.0000	3.6883
Total	**1.7800e-003**	**1.2100e-003**	**0.0121**	**4.0000e-005**	**7.4000e-003**	**3.0000e-005**	**7.4300e-003**	**1.9000e-003**	**3.0000e-005**	**1.9300e-003**	**0.0000**	**3.6861**	**3.6861**	**9.0000e-005**	**0.0000**	**3.6883**

3.7 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	0.0543	0.5022	0.5085	8.2000e-004		0.0278	0.0278		0.0262	0.0262	0.0000	70.5449	70.5449	0.0156	0.0000	70.9346
Total	**0.0543**	**0.5022**	**0.5085**	**8.2000e-004**		**0.0278**	**0.0278**		**0.0262**	**0.0262**	**0.0000**	**70.5449**	**70.5449**	**0.0156**	**0.0000**	**70.9346**

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	0.0168	0.4656	0.1276	1.2900e-003	0.0299	1.1400e-003	0.0311	8.6500e-003	1.0900e-003	9.7400e-003	0.0000	122.4332	122.4332	6.2300e-003	0.0000	122.5891
Worker	0.0389	0.0264	0.2649	8.9000e-004	0.0919	6.2000e-004	0.0925	0.0244	5.7000e-004	0.0250	0.0000	80.6278	80.6278	1.8700e-003	0.0000	80.6745
Total	**0.0557**	**0.4920**	**0.3925**	**2.1800e-003**	**0.1218**	**1.7600e-003**	**0.1236**	**0.0331**	**1.6600e-003**	**0.0348**	**0.0000**	**203.0610**	**203.0610**	**8.1000e-003**	**0.0000**	**203.2636**

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	0.0543	0.5022	0.5085	8.2000e-004		0.0278	0.0278		0.0262	0.0262	0.0000	70.5448	70.5448	0.0156	0.0000	70.9345
Total	**0.0543**	**0.5022**	**0.5085**	**8.2000e-004**		**0.0278**	**0.0278**		**0.0262**	**0.0262**	**0.0000**	**70.5448**	**70.5448**	**0.0156**	**0.0000**	**70.9345**

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	0.0168	0.4656	0.1276	1.2900e-003	0.0286	1.1400e-003	0.0298	8.3400e-003	1.0900e-003	9.4300e-003	0.0000	122.4332	122.4332	6.2300e-003	0.0000	122.5891
Worker	0.0389	0.0264	0.2649	8.9000e-004	0.0871	6.2000e-004	0.0877	0.0233	5.7000e-004	0.0238	0.0000	80.6278	80.6278	1.8700e-003	0.0000	80.6745
Total	**0.0557**	**0.4920**	**0.3925**	**2.1800e-003**	**0.1158**	**1.7600e-003**	**0.1175**	**0.0316**	**1.6600e-003**	**0.0333**	**0.0000**	**203.0610**	**203.0610**	**8.1000e-003**	**0.0000**	**203.2636**

3.7 Building Construction - 2022

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	0.3022	2.7919	3.1143	5.0600e-003		0.1448	0.1448		0.1369	0.1369	0.0000	436.8909	436.8909	0.0958	0.0000	439.2850
Total	**0.3022**	**2.7919**	**3.1143**	**5.0600e-003**		**0.1448**	**0.1448**		**0.1369**	**0.1369**	**0.0000**	**436.8909**	**436.8909**	**0.0958**	**0.0000**	**439.2850**

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	0.0962	2.7160	0.7263	7.9100e-003	0.1851	6.1200e-003	0.1912	0.0535	5.8500e-003	0.0594	0.0000	750.9331	750.9331	0.0365	0.0000	751.8457
Worker	0.2242	0.1464	1.4998	5.3100e-003	0.5688	3.7500e-003	0.5726	0.1513	3.4500e-003	0.1547	0.0000	480.6763	480.6763	0.0104	0.0000	480.9353
Total	**0.3204**	**2.8624**	**2.2262**	**0.0132**	**0.7539**	**9.8700e-003**	**0.7638**	**0.2048**	**9.3000e-003**	**0.2141**	**0.0000**	**1,231.6094**	**1,231.6094**	**0.0469**	**0.0000**	**1,232.7810**

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	0.3022	2.7919	3.1142	5.0600e-003		0.1448	0.1448		0.1369	0.1369	0.0000	436.8903	436.8903	0.0958	0.0000	439.2845
Total	**0.3022**	**2.7919**	**3.1142**	**5.0600e-003**		**0.1448**	**0.1448**		**0.1369**	**0.1369**	**0.0000**	**436.8903**	**436.8903**	**0.0958**	**0.0000**	**439.2845**

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	0.0962	2.7160	0.7263	7.9100e-003	0.1773	6.1200e-003	0.1834	0.0516	5.8500e-003	0.0575	0.0000	750.9331	750.9331	0.0365	0.0000	751.8457
Worker	0.2242	0.1464	1.4998	5.3100e-003	0.5393	3.7500e-003	0.5431	0.1440	3.4500e-003	0.1475	0.0000	480.6763	480.6763	0.0104	0.0000	480.9353
Total	**0.3204**	**2.8624**	**2.2262**	**0.0132**	**0.7166**	**9.8700e-003**	**0.7265**	**0.1956**	**9.3000e-003**	**0.2049**	**0.0000**	**1,231.6094**	**1,231.6094**	**0.0469**	**0.0000**	**1,232.7810**

3.7 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2336	2.1569	2.5962	4.2500e-003		0.1047	0.1047		0.0991	0.0991	0.0000	366.4612	366.4612	0.0797	0.0000	368.4536
Total	**0.2336**	**2.1569**	**2.5962**	**4.2500e-003**		**0.1047**	**0.1047**		**0.0991**	**0.0991**	**0.0000**	**366.4612**	**366.4612**	**0.0797**	**0.0000**	**368.4536**

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	0.0607	1.7443	0.5271	6.4700e-003	0.1552	1.9000e-003	0.1571	0.0449	1.8100e-003	0.0467	0.0000	614.8309	614.8309	0.0221	0.0000	615.3823
Worker	0.1753	0.1102	1.1519	4.2800e-003	0.4769	3.0700e-003	0.4800	0.1268	2.8300e-003	0.1297	0.0000	387.4861	387.4861	7.7800e-003	0.0000	387.6807
Total	**0.2360**	**1.8545**	**1.6790**	**0.0108**	**0.6321**	**4.9700e-003**	**0.6371**	**0.1717**	**4.6400e-003**	**0.1764**	**0.0000**	**1,002.3170**	**1,002.3170**	**0.0298**	**0.0000**	**1,003.0629**

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	0.2336	2.1569	2.5962	4.2500e-003		0.1047	0.1047		0.0991	0.0991	0.0000	366.4608	366.4608	0.0797	0.0000	368.4532
Total	**0.2336**	**2.1569**	**2.5962**	**4.2500e-003**		**0.1047**	**0.1047**		**0.0991**	**0.0991**	**0.0000**	**366.4608**	**366.4608**	**0.0797**	**0.0000**	**368.4532**

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	0.0607	1.7443	0.5271	6.4700e-003	0.1487	1.9000e-003	0.1506	0.0433	1.8100e-003	0.0451	0.0000	614.8309	614.8309	0.0221	0.0000	615.3823
Worker	0.1753	0.1102	1.1519	4.2800e-003	0.4522	3.0700e-003	0.4553	0.1208	2.8300e-003	0.1236	0.0000	387.4861	387.4861	7.7800e-003	0.0000	387.6807
Total	**0.2360**	**1.8545**	**1.6790**	**0.0108**	**0.6009**	**4.9700e-003**	**0.6058**	**0.1640**	**4.6400e-003**	**0.1687**	**0.0000**	**1,002.3170**	**1,002.3170**	**0.0298**	**0.0000**	**1,003.0629**

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.3878					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.2815	0.3912	6.4000e-004		0.0153	0.0153		0.0153	0.0153	0.0000	55.1503	55.1503	3.3000e-003	0.0000	55.2328
Total	**3.4292**	**0.2815**	**0.3912**	**6.4000e-004**		**0.0153**	**0.0153**		**0.0153**	**0.0153**	**0.0000**	**55.1503**	**55.1503**	**3.3000e-003**	**0.0000**	**55.2328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0231	0.0145	0.1519	5.6000e-004	0.0629	4.1000e-004	0.0633	0.0167	3.7000e-004	0.0171	0.0000	51.0979	51.0979	1.0300e-003	0.0000	51.1236
Total	**0.0231**	**0.0145**	**0.1519**	**5.6000e-004**	**0.0629**	**4.1000e-004**	**0.0633**	**0.0167**	**3.7000e-004**	**0.0171**	**0.0000**	**51.0979**	**51.0979**	**1.0300e-003**	**0.0000**	**51.1236**

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	3.3878					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.2815	0.3912	6.4000e-004		0.0153	0.0153		0.0153	0.0153	0.0000	55.1502	55.1502	3.3000e-003	0.0000	55.2327
Total	**3.4292**	**0.2815**	**0.3912**	**6.4000e-004**		**0.0153**	**0.0153**		**0.0153**	**0.0153**	**0.0000**	**55.1502**	**55.1502**	**3.3000e-003**	**0.0000**	**55.2327**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0231	0.0145	0.1519	5.6000e-004	0.0596	4.1000e-004	0.0600	0.0159	3.7000e-004	0.0163	0.0000	51.0979	51.0979	1.0300e-003	0.0000	51.1236
Total	**0.0231**	**0.0145**	**0.1519**	**5.6000e-004**	**0.0596**	**4.1000e-004**	**0.0600**	**0.0159**	**3.7000e-004**	**0.0163**	**0.0000**	**51.0979**	**51.0979**	**1.0300e-003**	**0.0000**	**51.1236**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Expand Transit Network

Implement Trip Reduction Program

Transit Subsidy

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

	ROG	NOx	CO	SO2	Fugitive 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	2.0720	10.2236	14.0255	0.0439	2.7074	0.0321	2.7395	0.7254	0.0299	0.7553	0.0000	4,060.5587	4,060.5587	0.2399	0.0000	4,066.5559
Unmitigated	2.5370	13.0376	23.8954	0.0932	7.1950	0.0672	7.2621	1.9278	0.0626	1.9904	0.0000	8,584.9383	8,584.9383	0.3621	0.0000	8,593.9898

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Discount Club	8,098.41	8,570.05	7906.72	13,372,830	4,947,177
Gasoline/Service Station	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	1,691.00	1,691.00	1691.00	3,905,546	1,578,683
Strip Mall	1,280.10	1,280.10	1280.10	1,971,396	717,763
Total	11,069.51	11,541.15	10,877.82	19,249,772	7,243,623

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Discount Club	9.50	7.30	10.00	16.70	64.30	19.00	45	40	15
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Discount Club	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Gasoline/Service Station	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Parking Lot	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Single Family Housing	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Strip Mall	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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	172.6773	172.6773	0.0293	6.0600e-003	175.2149
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	174.9983	174.9983	0.0297	6.1400e-003	177.5700
NaturalGas Mitigated	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	305.0794	305.0794	5.8500e-003	5.5900e-003	306.8924
NaturalGas Unmitigated	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	305.0794	305.0794	5.8500e-003	5.5900e-003	306.8924

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Discount Club	360567	1.9400e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2412	19.2412	3.7000e-004	3.5000e-004	19.3556
Gasoline/Service Station	111719	6.0000e-004	5.4800e-003	4.6000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9618	5.9618	1.1000e-004	1.1000e-004	5.9972
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
Single Family Housing	5.17359e+006	0.0279	0.2384	0.1014	1.5200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	276.0823	276.0823	5.2900e-003	5.0600e-003	277.7229
Strip Mall	71100	3.8000e-004	3.4900e-003	2.9300e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7942	3.7942	7.0000e-005	7.0000e-005	3.8167
Total		**0.0308**	**0.2650**	**0.1238**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**305.0794**	**305.0794**	**5.8400e-003**	**5.5900e-003**	**306.8924**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Discount Club	360567	1.9400e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2412	19.2412	3.7000e-004	3.5000e-004	19.3556
Gasoline/Service Station	111719	6.0000e-004	5.4800e-003	4.6000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9618	5.9618	1.1000e-004	1.1000e-004	5.9972
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

Single Family Housing	5.17359e+006	0.0279	0.2384	0.1014	1.5200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	276.0823	276.0823	5.2900e-003	5.0600e-003	277.7229
Strip Mall	71100	3.8000e-004	3.4900e-003	2.9300e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7942	3.7942	7.0000e-005	7.0000e-005	3.8167
Total		**0.0308**	**0.2650**	**0.1238**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**305.0794**	**305.0794**	**5.8400e-003**	**5.5900e-003**	**306.8924**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	1.13799e+006	88.2676	0.0150	3.1000e-003	89.5647
Gasoline/Service Station	24520.7	1.9019	3.2000e-004	7.0000e-005	1.9299
Parking Lot	192400	14.9234	2.5300e-003	5.2000e-004	15.1427
Single Family Housing	676857	52.5000	8.9000e-003	1.8400e-003	53.2715
Strip Mall	224400	17.4054	2.9500e-003	6.1000e-004	17.6612
Total		**174.9983**	**0.0297**	**6.1400e-003**	**177.5700**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	1.13799e+006	88.2676	0.0150	3.1000e-003	89.5647
Gasoline/Service Station	24520.7	1.9019	3.2000e-004	7.0000e-005	1.9299
Parking Lot	192400	14.9234	2.5300e-003	5.2000e-004	15.1427
Single Family Housing	646934	50.1790	8.5100e-003	1.7600e-003	50.9164
Strip Mall	224400	17.4054	2.9500e-003	6.1000e-004	17.6612
Total		**172.6773**	**0.0293**	**6.0600e-003**	**175.2149**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	2.3920	0.0122	1.0161	5.0000e-005		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003	0.0000	1.5313	1.5313	1.1300e-003	0.0000	1.5596
Unmitigated	2.4138	0.0331	1.3492	1.8000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	22.6409	22.6409	2.5700e-003	3.7000e-004	22.8168

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	0.3388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0313					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.0700e-003	0.0177	7.5100e-003	1.1000e-004		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	20.4437	20.4437	3.9000e-004	3.7000e-004	20.5652
Landscaping	0.0417	0.0154	1.3416	7.0000e-005		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003	0.0000	2.1972	2.1972	2.1800e-003	0.0000	2.2516
Total	**2.4138**	**0.0331**	**1.3492**	**1.8000e-004**		**8.8200e-003**	**8.8200e-003**		**8.8200e-003**	**8.8200e-003**	**0.0000**	**22.6409**	**22.6409**	**2.5700e-003**	**3.7000e-004**	**22.8168**

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	0.3388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0313					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0219	0.0122	1.0161	5.0000e-005		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003	0.0000	1.5313	1.5313	1.1300e-003	0.0000	1.5596
Total	**2.3920**	**0.0122**	**1.0161**	**5.0000e-005**		**5.4800e-003**	**5.4800e-003**		**5.4800e-003**	**5.4800e-003**	**0.0000**	**1.5313**	**1.5313**	**1.1300e-003**	**0.0000**	**1.5596**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.0604	0.6665	0.0161	40.5307
Unmitigated	23.0791	0.8331	0.0201	49.9059

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Discount Club	11.2694 / 6.90705	10.1801	0.3683	8.9000e-003	22.0414
Gasoline/Service Station	0.398457 / 0.244215	0.3599	0.0130	3.1000e-004	0.7793
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	11.5974 / 7.31141	10.5316	0.3791	9.1600e-003	22.7390
Strip Mall	2.22218 / 1.36198	2.0074	0.0726	1.7600e-003	4.3463
Total		**23.0791**	**0.8330**	**0.0201**	**49.9060**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Discount Club	9.01551 / 6.48572	8.4047	0.2947	7.1300e-003	17.8976
Gasoline/Service Station	0.318765 / 0.229318	0.2972	0.0104	2.5000e-004	0.6328
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	9.27793 / 6.86542	8.7012	0.3033	7.3400e-003	18.4711
Strip Mall	1.77774 / 1.2789	1.6573	0.0581	1.4100e-003	3.5292
Total		**19.0604**	**0.6665**	**0.0161**	**40.5307**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	46.5580	2.7515	0.0000	115.3455
Unmitigated	186.2320	11.0060	0.0000	461.3820

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	654.31	132.8190	7.8494	0.0000	329.0535
Gasoline/Service Station	16.17	3.2824	0.1940	0.0000	8.1319
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	215.46	43.7364	2.5848	0.0000	108.3552
Strip Mall	31.5	6.3942	0.3779	0.0000	15.8414
Total		**186.2320**	**11.0060**	**0.0000**	**461.3820**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	163.577	33.2048	1.9623	0.0000	82.2634
Gasoline/Service Station	4.0425	0.8206	0.0485	0.0000	2.0330
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	53.865	10.9341	0.6462	0.0000	27.0888
Strip Mall	7.875	1.5986	0.0945	0.0000	3.9604
Total		**46.5580**	**2.7515**	**0.0000**	**115.3455**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	6	8.00	365	89	0.20	Electrical

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Forklifts	0.1123	1.0509	1.2536	1.6700e-003		0.0649	0.0649		0.0597	0.0597	0.0000	147.0490	147.0490	0.0476	0.0000	148.2380
Total	**0.1123**	**1.0509**	**1.2536**	**1.6700e-003**		**0.0649**	**0.0649**		**0.0597**	**0.0597**	**0.0000**	**147.0490**	**147.0490**	**0.0476**	**0.0000**	**148.2380**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-172.8310	0.0000	0.0000	-172.8310

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	51.3 / 11.2	-172.8310	0.0000	0.0000	-172.8310
Total		**-172.8310**	**0.0000**	**0.0000**	**-172.8310**

Fairview at Northgate 2030

Solano-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,924.00	Space	17.52	769,600.00	0
City Park	5.70	Acre	5.70	248,292.00	0
Single Family Housing	178.00	Dwelling Unit	23.80	320,400.00	513
Discount Club	152.14	1000sqft	3.49	152,138.00	205
Gasoline/Service Station	30.00	Pump	0.10	4,235.00	0
Strip Mall	30.00	1000sqft	0.69	30,000.00	32

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	56
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	135	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per PG&E 2019 Sustainability Report - adjusted to meet 2030 reduction targets.

Land Use - Acreages and population adjusted to match site

Construction Phase - Operational 2030 run only

Off-road Equipment - anticipated equipment

Off-road Equipment - Operational 2030 run only

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Per Trip Generation table. City park is open space (not active park). Gas station trips incorporated into Discount Club trips. Discount Club C-NW trip length weighted for delivery trucks from the Tracy Depot and fuel trucks from Martinez fuel facility

Woodstoves - No wood burning

Energy Use - Update per 2019 T24.

Water And Wastewater - City park is proxy for Wetland area and Open Space, would not be irrigated

Solid Waste - City park is proxy for Wetland area and Open Space, would not generate waste

Operational Off-Road Equipment - Anticipated Costco equipment

Construction Off-road Equipment Mitigation - Per BAAQMD Basic Control Measures

Mobile Land Use Mitigation - Per TIA MM TRA-8

Energy Mitigation - Compliance with 2019 T24, rooftop solar for discount club

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	70.00	0.00
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	LightingElect	3.08	2.16
tblEnergyUse	LightingElect	0.35	0.25
tblEnergyUse	LightingElect	1,608.84	756.15
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	NT24E	2.68	1.88
tblEnergyUse	NT24E	3.70	2.59
tblEnergyUse	NT24E	6,155.97	2,893.31
tblEnergyUse	NT24E	2.68	1.88
tblEnergyUse	T24E	2.76	1.93

tblEnergyUse	T24E	1.48	1.04
tblEnergyUse	T24E	325.76	153.11
tblEnergyUse	T24E	2.76	1.93
tblFireplaces	NumberGas	44.50	163.76
tblFireplaces	NumberWood	76.54	0.00
tblLandUse	LandUseSquareFeet	152,140.00	152,138.00
tblLandUse	LandUseSquareFeet	4,235.25	4,235.00
tblLandUse	LotAcreage	17.32	17.52
tblLandUse	LotAcreage	57.79	23.80
tblLandUse	Population	509.00	513.00
tblLandUse	Population	0.00	205.00
tblLandUse	Population	0.00	32.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	135
tblSolidWaste	SolidWasteGenerationRate	0.49	0.00
tblVehicleTrips	CNW_TL	7.30	10.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	53.75	56.33
tblVehicleTrips	ST_TR	168.56	0.00
tblVehicleTrips	ST_TR	9.91	9.50
tblVehicleTrips	ST_TR	42.04	42.67
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	33.67	51.97
tblVehicleTrips	SU_TR	168.56	0.00
tblVehicleTrips	SU_TR	8.62	9.50
tblVehicleTrips	SU_TR	20.43	42.67
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	41.80	53.23

tblVehicleTrips	WD_TR	168.56	0.00
tblVehicleTrips	WD_TR	9.52	9.50
tblVehicleTrips	WD_TR	44.32	42.67
tblWater	OutdoorWaterUseRate	6,791,443.69	0.00
tblWoodstoves	NumberCatalytic	7.12	0.00
tblWoodstoves	NumberNoncatalytic	7.12	0.00

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	2.4134	0.0330	1.3453	1.8000e-004		8.8300e-003	8.8300e-003		8.8300e-003	8.8300e-003	0.0000	22.6409	22.6409	2.5500e-003	3.7000e-004	22.8163
Energy	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	443.2359	443.2359	0.0355	0.0117	447.6206
Mobile	1.7449	11.2091	15.9638	0.0784	7.1872	0.0469	7.2340	1.9242	0.0436	1.9678	0.0000	7,248.0415	7,248.0415	0.2742	0.0000	7,254.8969
Offroad	0.0973	0.5346	1.3060	2.0600e-003		7.2200e-003	7.2200e-003		7.2200e-003	7.2200e-003	0.0000	177.2275	177.2275	7.8000e-003	0.0000	177.4224
Waste						0.0000	0.0000		0.0000	0.0000	186.2320	0.0000	186.2320	11.0060	0.0000	461.3820
Water						0.0000	0.0000		0.0000	0.0000	8.0860	11.8367	19.9226	0.8331	0.0201	46.7495
Total	**4.2864**	**12.0417**	**18.7388**	**0.0823**	**7.1872**	**0.0842**	**7.2714**	**1.9242**	**0.0810**	**2.0052**	**194.3180**	**7,902.9825**	**8,097.3005**	**12.1591**	**0.0322**	**8,410.8876**

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	2.3917	0.0122	1.0129	5.0000e-005		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	1.5313	1.5313	1.1200e-003	0.0000	1.5593
Energy	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	410.7852	410.7852	0.0286	0.0103	414.5658
Mobile	1.4042	9.3498	9.1705	0.0376	2.7045	0.0231	2.7276	0.7241	0.0214	0.7455	0.0000	3,489.5060	3,489.5060	0.1888	0.0000	3,494.2264
Offroad	0.0973	0.5346	1.3060	2.0600e-003		7.2200e-003	7.2200e-003		7.2200e-003	7.2200e-003	0.0000	177.2275	177.2275	7.8000e-003	0.0000	177.4224
Waste						0.0000	0.0000		0.0000	0.0000	46.5580	0.0000	46.5580	2.7515	0.0000	115.3455
Water						0.0000	0.0000		0.0000	0.0000	6.4688	9.9408	16.4095	0.6665	0.0161	37.8798
Total	**3.9241**	**10.1615**	**11.6132**	**0.0414**	**2.7045**	**0.0571**	**2.7616**	**0.7241**	**0.0555**	**0.7795**	**53.0268**	**4,088.9907**	**4,142.0175**	**3.6443**	**0.0264**	**4,240.9992**

	ROG	NOx	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	**8.45**	**15.61**	**38.03**	**49.71**	**62.37**	**32.20**	**62.02**	**62.37**	**31.51**	**61.12**	**72.71**	**48.26**	**48.85**	**70.03**	**18.05**	**49.58**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-172.8310
Total	**-172.8310**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2020	8/31/2020	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 17.52

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Expand Transit Network

Implement Trip Reduction Program

Transit Subsidy

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4042	9.3498	9.1705	0.0376	2.7045	0.0231	2.7276	0.7241	0.0214	0.7455	0.0000	3,489.5060	3,489.5060	0.1888	0.0000	3,494.2264
Unmitigated	1.7449	11.2091	15.9638	0.0784	7.1872	0.0469	7.2340	1.9242	0.0436	1.9678	0.0000	7,248.0415	7,248.0415	0.2742	0.0000	7,254.8969

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Discount Club	8,098.41	8,570.05	7906.72	13,372,830	4,947,177
Gasoline/Service Station	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	1,691.00	1,691.00	1691.00	3,905,546	1,578,683
Strip Mall	1,280.10	1,280.10	1280.10	1,971,396	717,763
Total	11,069.51	11,541.15	10,877.82	19,249,772	7,243,623

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Discount Club	9.50	7.30	10.00	16.70	64.30	19.00	45	40	15
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.607682	0.033070	0.175504	0.098232	0.012332	0.004722	0.009182	0.047298	0.003255	0.001718	0.005702	0.000617	0.000687
Discount Club	0.607682	0.033070	0.175504	0.098232	0.012332	0.004722	0.009182	0.047298	0.003255	0.001718	0.005702	0.000617	0.000687
Gasoline/Service Station	0.607682	0.033070	0.175504	0.098232	0.012332	0.004722	0.009182	0.047298	0.003255	0.001718	0.005702	0.000617	0.000687
Parking Lot	0.607682	0.033070	0.175504	0.098232	0.012332	0.004722	0.009182	0.047298	0.003255	0.001718	0.005702	0.000617	0.000687
Single Family Housing	0.607682	0.033070	0.175504	0.098232	0.012332	0.004722	0.009182	0.047298	0.003255	0.001718	0.005702	0.000617	0.000687
Strip Mall	0.607682	0.033070	0.175504	0.098232	0.012332	0.004722	0.009182	0.047298	0.003255	0.001718	0.005702	0.000617	0.000687

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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	105.7057	105.7057	0.0227	4.7000e-003	107.6734
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	138.1565	138.1565	0.0297	6.1400e-003	140.7283
NaturalGas Mitigated	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	305.0794	305.0794	5.8500e-003	5.5900e-003	306.8924
NaturalGas Unmitigated	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	305.0794	305.0794	5.8500e-003	5.5900e-003	306.8924

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Discount Club	360567	1.9400e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2412	19.2412	3.7000e-004	3.5000e-004	19.3556
Gasoline/Service Station	111719	6.0000e-004	5.4800e-003	4.6000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9618	5.9618	1.1000e-004	1.1000e-004	5.9972
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
Single Family Housing	5.17359e+006	0.0279	0.2384	0.1014	1.5200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	276.0823	276.0823	5.2900e-003	5.0600e-003	277.7229
Strip Mall	71100	3.8000e-004	3.4900e-003	2.9300e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7942	3.7942	7.0000e-005	7.0000e-005	3.8167
Total		**0.0308**	**0.2650**	**0.1238**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**305.0794**	**305.0794**	**5.8400e-003**	**5.5900e-003**	**306.8924**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Discount Club	360567	1.9400e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2412	19.2412	3.7000e-004	3.5000e-004	19.3556
Gasoline/Service Station	111719	6.0000e-004	5.4800e-003	4.6000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9618	5.9618	1.1000e-004	1.1000e-004	5.9972
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

Single Family Housing	5.17359e+006	0.0279	0.2384	0.1014	1.5200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	276.0823	276.0823	5.2900e-003	5.0600e-003	277.7229
Strip Mall	71100	3.8000e-004	3.4900e-003	2.9300e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7942	3.7942	7.0000e-005	7.0000e-005	3.8167
Total		**0.0308**	**0.2650**	**0.1238**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**305.0794**	**305.0794**	**5.8400e-003**	**5.5900e-003**	**306.8924**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	1.13799e+006	69.6849	0.0150	3.1000e-003	70.9821
Gasoline/Service Station	24520.7	1.5015	3.2000e-004	7.0000e-005	1.5295
Parking Lot	192400	11.7816	2.5300e-003	5.2000e-004	12.0009
Single Family Housing	676857	41.4474	8.9000e-003	1.8400e-003	42.2189
Strip Mall	224400	13.7411	2.9500e-003	6.1000e-004	13.9969
Total		**138.1565**	**0.0297**	**6.1400e-003**	**140.7283**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	882399	54.0337	0.0116	2.4000e-003	55.0395
Gasoline/Service Station	19013.3	1.1643	2.5000e-004	5.0000e-005	1.1860
Parking Lot	149187	9.1355	1.9600e-003	4.1000e-004	9.3055
Single Family Housing	501632	30.7174	6.6000e-003	1.3700e-003	31.2892
Strip Mall	174000	10.6549	2.2900e-003	4.7000e-004	10.8532
Total		**105.7057**	**0.0227**	**4.7000e-003**	**107.6734**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	2.3917	0.0122	1.0129	5.0000e-005		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	1.5313	1.5313	1.1200e-003	0.0000	1.5593
Unmitigated	2.4134	0.0330	1.3453	1.8000e-004		8.8300e-003	8.8300e-003		8.8300e-003	8.8300e-003	0.0000	22.6409	22.6409	2.5500e-003	3.7000e-004	22.8163

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	0.3388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0313					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.0700e-003	0.0177	7.5100e-003	1.1000e-004		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	20.4437	20.4437	3.9000e-004	3.7000e-004	20.5652
Landscaping	0.0412	0.0154	1.3378	7.0000e-005		7.4000e-003	7.4000e-003		7.4000e-003	7.4000e-003	0.0000	2.1972	2.1972	2.1600e-003	0.0000	2.2511
Total	**2.4134**	**0.0330**	**1.3453**	**1.8000e-004**		**8.8300e-003**	**8.8300e-003**		**8.8300e-003**	**8.8300e-003**	**0.0000**	**22.6409**	**22.6409**	**2.5500e-003**	**3.7000e-004**	**22.8163**

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	0.3388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0313					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0217	0.0122	1.0129	5.0000e-005		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	1.5313	1.5313	1.1200e-003	0.0000	1.5593
Total	**2.3917**	**0.0122**	**1.0129**	**5.0000e-005**		**5.5000e-003**	**5.5000e-003**		**5.5000e-003**	**5.5000e-003**	**0.0000**	**1.5313**	**1.5313**	**1.1200e-003**	**0.0000**	**1.5593**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	16.4095	0.6665	0.0161	37.8798
Unmitigated	19.9226	0.8331	0.0201	46.7495

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Discount Club	11.2694 / 6.90705	8.7896	0.3683	8.9000e-003	20.6509
Gasoline/Service Station	0.398457 / 0.244215	0.3108	0.0130	3.1000e-004	0.7302
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	11.5974 / 7.31141	9.0890	0.3791	9.1600e-003	21.2964
Strip Mall	2.22218 / 1.36198	1.7332	0.0726	1.7600e-003	4.0721
Total		**19.9226**	**0.8330**	**0.0201**	**46.7495**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Discount Club	9.01551 / 6.48572	7.2375	0.2947	7.1300e-003	16.7303
Gasoline/Service Station	0.318765 / 0.229318	0.2559	0.0104	2.5000e-004	0.5915
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Single Family Housing	9.27793 / 6.86542	7.4891	0.3033	7.3400e-003	17.2590
Strip Mall	1.77774 / 1.2789	1.4271	0.0581	1.4100e-003	3.2990
Total		**16.4095**	**0.6665**	**0.0161**	**37.8798**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	46.5580	2.7515	0.0000	115.3455
Unmitigated	186.2320	11.0060	0.0000	461.3820

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	654.31	132.8190	7.8494	0.0000	329.0535
Gasoline/Service Station	16.17	3.2824	0.1940	0.0000	8.1319
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	215.46	43.7364	2.5848	0.0000	108.3552
Strip Mall	31.5	6.3942	0.3779	0.0000	15.8414
Total		**186.2320**	**11.0060**	**0.0000**	**461.3820**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	163.577	33.2048	1.9623	0.0000	82.2634
Gasoline/Service Station	4.0425	0.8206	0.0485	0.0000	2.0330
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Single Family Housing	53.865	10.9341	0.6462	0.0000	27.0888
Strip Mall	7.875	1.5986	0.0945	0.0000	3.9604
Total		**46.5580**	**2.7515**	**0.0000**	**115.3455**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	6	8.00	365	89	0.20	Electrical

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0973	0.5346	1.3060	2.0600e-003		7.2200e-003	7.2200e-003		7.2200e-003	7.2200e-003	0.0000	177.2275	177.2275	7.8000e-003	0.0000	177.4224
Total	**0.0973**	**0.5346**	**1.3060**	**2.0600e-003**		**7.2200e-003**	**7.2200e-003**		**7.2200e-003**	**7.2200e-003**	**0.0000**	**177.2275**	**177.2275**	**7.8000e-003**	**0.0000**	**177.4224**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-172.8310	0.0000	0.0000	-172.8310

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	51.3 / 11.2	-172.8310	0.0000	0.0000	-172.8310
Total		**-172.8310**	**0.0000**	**0.0000**	**-172.8310**

Fairview at Northgate - Tier 4 Construction Mitigation

Solano-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,924.00	Space	17.52	769,600.00	0
City Park	5.70	Acre	5.70	248,292.00	0
Single Family Housing	178.00	Dwelling Unit	23.80	320,400.00	513
Discount Club	152.14	1000sqft	3.49	152,138.00	205
Gasoline/Service Station	30.00	Pump	0.10	4,235.00	0
Strip Mall	30.00	1000sqft	0.69	30,000.00	32

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	56
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	171	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per PG&E 2019 Sustainability Report.

Land Use - Acreages and population adjusted to match site

Construction Phase - Anticipated schedule. Trenching includes 9 months for PG&E work and 2 months for project utilities.

Off-road Equipment - anticipated equipment

Off-road Equipment - anticipated equipment

Off-road Equipment - No demolition expected

Off-road Equipment - Anticipated equipment

Off-road Equipment - anticipated equipment

Off-road Equipment -

Off-road Equipment - Anticipated Equipment used

Off-road Equipment - Anticipated equipment

Trips and VMT -

Demolition -

Grading - Site is 51.3 acres. Conservatively anticipated incidental export
Site is balanced

Vehicle Trips - Per Trip Generation table. City park is open space (not active park). Gas station trips incorporated into Discount Club trips. Discount Club C-NW trip length weighted for delivery trucks from the Tracy Depot and fuel trucks from Martinez fuel facility

Woodstoves - No wood burning

Energy Use - Update per 2019 T24.

Water And Wastewater - City park is proxy for Wetland area and Open Space, would not be irrigated

Solid Waste - City park is proxy for Wetland area and Open Space, would not generate waste

Operational Off-Road Equipment - Anticipated Costco Equipment

Construction Off-road Equipment Mitigation - Per BAAQMD Basic Control Measures. Tier 4 equipment required per EIR Mitigation Measure AQ-2.

Mobile Land Use Mitigation - Per TIA MM TRA-8

Energy Mitigation - Compliance with 2019 T24

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	19.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	75.00	144.00
tblConstructionPhase	NumDays	1,110.00	520.00
tblConstructionPhase	NumDays	70.00	0.00
tblConstructionPhase	NumDays	110.00	33.00
tblConstructionPhase	NumDays	75.00	23.00
tblConstructionPhase	NumDays	40.00	11.00
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	LightingElect	3.08	2.16
tblEnergyUse	LightingElect	0.35	0.25
tblEnergyUse	LightingElect	1,608.84	756.15
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	NT24E	2.68	1.88
tblEnergyUse	NT24E	3.70	2.59

tblEnergyUse	NT24E	6,155.97	2,893.31
tblEnergyUse	NT24E	2.68	1.88
tblEnergyUse	T24E	2.76	1.93
tblEnergyUse	T24E	1.48	1.04
tblEnergyUse	T24E	325.76	153.11
tblEnergyUse	T24E	2.76	1.93
tblFireplaces	NumberGas	44.50	163.76
tblFireplaces	NumberWood	76.54	0.00
tblGrading	MaterialExported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	152,140.00	152,138.00
tblLandUse	LandUseSquareFeet	4,235.25	4,235.00
tblLandUse	LotAcreage	17.32	17.52
tblLandUse	LotAcreage	57.79	23.80
tblLandUse	Population	509.00	513.00
tblLandUse	Population	0.00	205.00
tblLandUse	Population	0.00	32.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching/Utility Work
tblOffRoadEquipment	PhaseName		Trenching/Utility Work
tblOffRoadEquipment	PhaseName		Trenching/Utility Work
tblOffRoadEquipment	PhaseName		Trenching/Utility Work
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171
tblSolidWaste	SolidWasteGenerationRate	0.49	0.00
tblVehicleTrips	CNW_TL	7.30	10.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	53.75	56.33
tblVehicleTrips	ST_TR	168.56	0.00
tblVehicleTrips	ST_TR	9.91	9.50
tblVehicleTrips	ST_TR	42.04	42.67
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	33.67	51.97
tblVehicleTrips	SU_TR	168.56	0.00
tblVehicleTrips	SU_TR	8.62	9.50
tblVehicleTrips	SU_TR	20.43	42.67
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	41.80	53.23
tblVehicleTrips	WD_TR	168.56	0.00
tblVehicleTrips	WD_TR	9.52	9.50
tblVehicleTrips	WD_TR	44.32	42.67
tblWater	OutdoorWaterUseRate	6,791,443.69	0.00
tblWoodstoves	NumberCatalytic	7.12	0.00
tblWoodstoves	NumberNoncatalytic	7.12	0.00

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	0.2470	2.7342	1.7499	3.5800e-003	0.4305	0.1222	0.5527	0.1811	0.1124	0.2935	0.0000	316.8180	316.8180	0.0927	0.0000	319.1349
2021	0.3291	2.8712	2.6307	5.9300e-003	0.1413	0.1361	0.2774	0.0382	0.1259	0.1641	0.0000	531.9838	531.9838	0.1031	0.0000	534.5606
2022	0.6226	5.6543	5.3404	0.0183	0.7539	0.1546	0.9086	0.2048	0.1462	0.3510	0.0000	1,668.5002	1,668.5002	0.1426	0.0000	1,672.0660
2023	3.9220	4.3073	4.8182	0.0162	0.6950	0.1254	0.8204	0.1884	0.1194	0.3078	0.0000	1,475.0264	1,475.0264	0.1139	0.0000	1,477.8729
Maximum	**3.9220**	**5.6543**	**5.3404**	**0.0183**	**0.7539**	**0.1546**	**0.9086**	**0.2048**	**0.1462**	**0.3510**	**0.0000**	**1,668.5002**	**1,668.5002**	**0.1426**	**0.0000**	**1,672.0660**

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	0.0638	0.4205	1.8344	3.5800e-003	0.1936	0.0179	0.2116	0.0800	0.0169	0.0969	0.0000	316.8177	316.8177	0.0927	0.0000	319.1346
2021	0.2138	1.4885	2.8953	5.9300e-003	0.1342	0.0647	0.1990	0.0365	0.0606	0.0971	0.0000	531.9835	531.9835	0.1031	0.0000	534.5603
2022	0.4792	3.9743	5.4831	0.0183	0.7166	0.0613	0.7779	0.1956	0.0607	0.2564	0.0000	1,668.4997	1,668.4997	0.1426	0.0000	1,672.0655
2023	3.8138	3.0317	4.9495	0.0162	0.6605	0.0588	0.7193	0.1800	0.0584	0.2384	0.0000	1,475.0259	1,475.0259	0.1139	0.0000	1,477.8724
Maximum	**3.8138**	**3.9743**	**5.4831**	**0.0183**	**0.7166**	**0.0647**	**0.7779**	**0.1956**	**0.0607**	**0.2564**	**0.0000**	**1,668.4997**	**1,668.4997**	**0.1426**	**0.0000**	**1,672.0655**

	ROG	NOx	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	**10.74**	**42.73**	**-4.29**	**0.00**	**15.63**	**62.34**	**25.45**	**19.67**	**60.97**	**38.31**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2020**	**11-30-2020**	2.6904	0.3713
2	**12-1-2020**	**2-28-2021**	0.6209	0.2978
3	**3-1-2021**	**5-31-2021**	0.6122	0.2968
4	**6-1-2021**	**8-31-2021**	0.6121	0.2967
5	**9-1-2021**	**11-30-2021**	0.9937	0.5078
6	**12-1-2021**	**2-28-2022**	1.6086	1.1345
7	**3-1-2022**	**5-31-2022**	1.5839	1.1231
8	**6-1-2022**	**8-31-2022**	1.5782	1.1173
9	**9-1-2022**	**11-30-2022**	1.5724	1.1165
10	**12-1-2022**	**2-28-2023**	1.4091	0.9863
11	**3-1-2023**	**5-31-2023**	1.9267	1.5096
12	**6-1-2023**	**8-31-2023**	3.0565	2.6394

13	**9-1-2023**	**9-30-2023**	0.9967	0.8607
		Highest	3.0565	2.6394

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	2.4138	0.0331	1.3492	1.8000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	22.6409	22.6409	2.5700e-003	3.7000e-004	22.8168
Energy	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	480.0777	480.0777	0.0355	0.0117	484.4624
Mobile	2.5370	13.0376	23.8954	0.0932	7.1950	0.0672	7.2621	1.9278	0.0626	1.9904	0.0000	8,584.9383	8,584.9383	0.3621	0.0000	8,593.9898
Offroad	0.1123	1.0509	1.2536	1.6700e-003		0.0649	0.0649		0.0597	0.0597	0.0000	147.0490	147.0490	0.0476	0.0000	148.2380
Waste						0.0000	0.0000		0.0000	0.0000	186.2320	0.0000	186.2320	11.0060	0.0000	461.3820
Water						0.0000	0.0000		0.0000	0.0000	8.0860	14.9931	23.0791	0.8331	0.0201	49.9059
Total	**5.0939**	**14.3866**	**26.6220**	**0.0967**	**7.1950**	**0.1622**	**7.3572**	**1.9278**	**0.1525**	**2.0802**	**194.3180**	**9,249.6989**	**9,444.0170**	**12.2868**	**0.0322**	**9,760.7948**

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	2.3920	0.0122	1.0161	5.0000e-005		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003	0.0000	1.5313	1.5313	1.1300e-003	0.0000	1.5596
Energy	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	477.7567	477.7567	0.0351	0.0117	482.1073
Mobile	2.0720	10.2236	14.0255	0.0439	2.7074	0.0321	2.7395	0.7254	0.0299	0.7553	0.0000	4,060.5587	4,060.5587	0.2399	0.0000	4,066.5559
Offroad	0.1123	1.0509	1.2536	1.6700e-003		0.0649	0.0649		0.0597	0.0597	0.0000	147.0490	147.0490	0.0476	0.0000	148.2380
Waste						0.0000	0.0000		0.0000	0.0000	46.5580	0.0000	46.5580	2.7515	0.0000	115.3455
Water						0.0000	0.0000		0.0000	0.0000	6.4688	12.5916	19.0604	0.6665	0.0161	40.5307
Total	**4.6070**	**11.5517**	**16.4190**	**0.0473**	**2.7074**	**0.1238**	**2.8313**	**0.7254**	**0.1164**	**0.8418**	**53.0268**	**4,699.4873**	**4,752.5141**	**3.7418**	**0.0278**	**4,854.3368**

	ROG	NOx	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	**9.56**	**19.71**	**38.33**	**51.06**	**62.37**	**23.66**	**61.52**	**62.37**	**23.67**	**59.53**	**72.71**	**49.19**	**49.68**	**69.55**	**13.83**	**50.27**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-172.8310
Total	**-172.8310**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2020	8/31/2020	5	0	
2	Site Preparation	Site Preparation	9/1/2020	9/15/2020	5	11	
3	Grading	Grading	9/16/2020	10/30/2020	5	33	
4	Trenching/Utility Work	Trenching	10/31/2020	10/1/2021	5	240	
5	Paving	Paving	10/2/2021	11/3/2021	5	23	
6	Building Construction	Building Construction	11/4/2021	11/1/2023	5	520	
7	Architectural Coating	Architectural Coating	5/1/2023	11/16/2023	5	144	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 214.5

Acres of Paving: 17.52

Residential Indoor: 648,810; Residential Outdoor: 216,270; Non-Residential Indoor: 279,560; Non-Residential Outdoor: 93,187; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	3	8.00	187	0.41

Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	5	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching/Utility Work	Excavators	1	8.00	158	0.38
Trenching/Utility Work	Rubber Tired Loaders	1	8.00	203	0.36
Trenching/Utility Work	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching/Utility Work	Trenchers	2	8.00	78	0.50
Paving	Pavers	3	8.00	130	0.42
Paving	Paving Equipment	3	8.00	132	0.36
Paving	Rollers	3	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	3	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	11	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	11	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	18	45.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Utility Work	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	551.00	216.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	110.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 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					0.0994	0.0000	0.0994	0.0546	0.0000	0.0546	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0270	0.2796	0.1685	2.8000e-004		0.0150	0.0150		0.0138	0.0138	0.0000	24.3896	24.3896	7.8900e-003	0.0000	24.5868
Total	**0.0270**	**0.2796**	**0.1685**	**2.8000e-004**	**0.0994**	**0.0150**	**0.1144**	**0.0546**	**0.0138**	**0.0684**	**0.0000**	**24.3896**	**24.3896**	**7.8900e-003**	**0.0000**	**24.5868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	7.9000e-004	7.7500e-003	2.0000e-005	4.5600e-003	2.0000e-005	4.5800e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	2.2248	2.2248	6.0000e-005	0.0000	2.2262
Total	**1.1200e-003**	**7.9000e-004**	**7.7500e-003**	**2.0000e-005**	**4.5600e-003**	**2.0000e-005**	**4.5800e-003**	**1.1700e-003**	**2.0000e-005**	**1.1900e-003**	**0.0000**	**2.2248**	**2.2248**	**6.0000e-005**	**0.0000**	**2.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0425	0.0000	0.0425	0.0234	0.0000	0.0234	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-003	0.0147	0.1663	2.8000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	24.3896	24.3896	7.8900e-003	0.0000	24.5868
Total	**3.4000e-003**	**0.0147**	**0.1663**	**2.8000e-004**	**0.0425**	**4.5000e-004**	**0.0429**	**0.0234**	**4.5000e-004**	**0.0238**	**0.0000**	**24.3896**	**24.3896**	**7.8900e-003**	**0.0000**	**24.5868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	7.9000e-004	7.7500e-003	2.0000e-005	4.3100e-003	2.0000e-005	4.3200e-003	1.1100e-003	2.0000e-005	1.1200e-003	0.0000	2.2248	2.2248	6.0000e-005	0.0000	2.2262
Total	**1.1200e-003**	**7.9000e-004**	**7.7500e-003**	**2.0000e-005**	**4.3100e-003**	**2.0000e-005**	**4.3200e-003**	**1.1100e-003**	**2.0000e-005**	**1.1200e-003**	**0.0000**	**2.2248**	**2.2248**	**6.0000e-005**	**0.0000**	**2.2262**

3.4 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					0.3128	0.0000	0.3128	0.1216	0.0000	0.1216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1711	1.9548	1.2076	2.4100e-003		0.0826	0.0826		0.0760	0.0760	0.0000	211.3778	211.3778	0.0684	0.0000	213.0869
Total	**0.1711**	**1.9548**	**1.2076**	**2.4100e-003**	**0.3128**	**0.0826**	**0.3954**	**0.1216**	**0.0760**	**0.1976**	**0.0000**	**211.3778**	**211.3778**	**0.0684**	**0.0000**	**213.0869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5800e-003	0.0865	0.0149	2.5000e-004	5.3200e-003	3.0000e-004	5.6200e-003	1.4600e-003	2.9000e-004	1.7500e-003	0.0000	23.9688	23.9688	9.4000e-004	0.0000	23.9923
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-003	1.9000e-003	0.0187	6.0000e-005	5.9000e-003	4.0000e-005	5.9400e-003	1.5700e-003	4.0000e-005	1.6100e-003	0.0000	5.3634	5.3634	1.3000e-004	0.0000	5.3668
Total	**5.2800e-003**	**0.0884**	**0.0336**	**3.1000e-004**	**0.0112**	**3.4000e-004**	**0.0116**	**3.0300e-003**	**3.3000e-004**	**3.3600e-003**	**0.0000**	**29.3322**	**29.3322**	**1.0700e-003**	**0.0000**	**29.3590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1337	0.0000	0.1337	0.0520	0.0000	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0296	0.1280	1.2508	2.4100e-003		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	211.3776	211.3776	0.0684	0.0000	213.0867
Total	**0.0296**	**0.1280**	**1.2508**	**2.4100e-003**	**0.1337**	**3.9400e-003**	**0.1376**	**0.0520**	**3.9400e-003**	**0.0559**	**0.0000**	**211.3776**	**211.3776**	**0.0684**	**0.0000**	**213.0867**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5800e-003	0.0865	0.0149	2.5000e-004	5.0800e-003	3.0000e-004	5.3800e-003	1.4000e-003	2.9000e-004	1.6900e-003	0.0000	23.9688	23.9688	9.4000e-004	0.0000	23.9923
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-003	1.9000e-003	0.0187	6.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5300e-003	0.0000	5.3634	5.3634	1.3000e-004	0.0000	5.3668
Total	**5.2800e-003**	**0.0884**	**0.0336**	**3.1000e-004**	**0.0107**	**3.4000e-004**	**0.0110**	**2.8900e-003**	**3.3000e-004**	**3.2200e-003**	**0.0000**	**29.3322**	**29.3322**	**1.0700e-003**	**0.0000**	**29.3590**

3.5 Trenching/Utility Work - 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	0.0413	0.4098	0.3242	5.4000e-004		0.0242	0.0242		0.0222	0.0222	0.0000	47.1098	47.1098	0.0152	0.0000	47.4907
Total	**0.0413**	**0.4098**	**0.3242**	**5.4000e-004**		**0.0242**	**0.0242**		**0.0222**	**0.0222**	**0.0000**	**47.1098**	**47.1098**	**0.0152**	**0.0000**	**47.4907**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	8.4000e-004	8.3000e-003	3.0000e-005	2.6200e-003	2.0000e-005	2.6400e-003	7.0000e-004	2.0000e-005	7.1000e-004	0.0000	2.3837	2.3837	6.0000e-005	0.0000	2.3852
Total	**1.2000e-003**	**8.4000e-004**	**8.3000e-003**	**3.0000e-005**	**2.6200e-003**	**2.0000e-005**	**2.6400e-003**	**7.0000e-004**	**2.0000e-005**	**7.1000e-004**	**0.0000**	**2.3837**	**2.3837**	**6.0000e-005**	**0.0000**	**2.3852**

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	0.0232	0.1877	0.3676	5.4000e-004		0.0131	0.0131		0.0121	0.0121	0.0000	47.1098	47.1098	0.0152	0.0000	47.4907
Total	**0.0232**	**0.1877**	**0.3676**	**5.4000e-004**		**0.0131**	**0.0131**		**0.0121**	**0.0121**	**0.0000**	**47.1098**	**47.1098**	**0.0152**	**0.0000**	**47.4907**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	8.4000e-004	8.3000e-003	3.0000e-005	2.4800e-003	2.0000e-005	2.5000e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.3837	2.3837	6.0000e-005	0.0000	2.3852
Total	**1.2000e-003**	**8.4000e-004**	**8.3000e-003**	**3.0000e-005**	**2.4800e-003**	**2.0000e-005**	**2.5000e-003**	**6.6000e-004**	**2.0000e-005**	**6.8000e-004**	**0.0000**	**2.3837**	**2.3837**	**6.0000e-005**	**0.0000**	**2.3852**

3.5 Trenching/Utility Work - 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	0.1677	1.6496	1.4312	2.3900e-003		0.0948	0.0948		0.0872	0.0872	0.0000	209.9082	209.9082	0.0679	0.0000	211.6054
Total	**0.1677**	**1.6496**	**1.4312**	**2.3900e-003**		**0.0948**	**0.0948**		**0.0872**	**0.0872**	**0.0000**	**209.9082**	**209.9082**	**0.0679**	**0.0000**	**211.6054**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9500e-003	3.3500e-003	0.0337	1.1000e-004	0.0117	8.0000e-005	0.0118	3.1000e-003	7.0000e-005	3.1800e-003	0.0000	10.2431	10.2431	2.4000e-004	0.0000	10.2490
Total	**4.9500e-003**	**3.3500e-003**	**0.0337**	**1.1000e-004**	**0.0117**	**8.0000e-005**	**0.0118**	**3.1000e-003**	**7.0000e-005**	**3.1800e-003**	**0.0000**	**10.2431**	**10.2431**	**2.4000e-004**	**0.0000**	**10.2490**

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	0.0962	0.7805	1.6317	2.3900e-003		0.0528	0.0528		0.0488	0.0488	0.0000	209.9080	209.9080	0.0679	0.0000	211.6052
Total	**0.0962**	**0.7805**	**1.6317**	**2.3900e-003**		**0.0528**	**0.0528**		**0.0488**	**0.0488**	**0.0000**	**209.9080**	**209.9080**	**0.0679**	**0.0000**	**211.6052**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9500e-003	3.3500e-003	0.0337	1.1000e-004	0.0111	8.0000e-005	0.0112	2.9600e-003	7.0000e-005	3.0300e-003	0.0000	10.2431	10.2431	2.4000e-004	0.0000	10.2490
Total	**4.9500e-003**	**3.3500e-003**	**0.0337**	**1.1000e-004**	**0.0111**	**8.0000e-005**	**0.0112**	**2.9600e-003**	**7.0000e-005**	**3.0300e-003**	**0.0000**	**10.2431**	**10.2431**	**2.4000e-004**	**0.0000**	**10.2490**

3.6 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	0.0217	0.2229	0.2528	3.9000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	34.5405	34.5405	0.0112	0.0000	34.8198
Paving	0.0230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0446**	**0.2229**	**0.2528**	**3.9000e-004**		**0.0117**	**0.0117**		**0.0108**	**0.0108**	**0.0000**	**34.5405**	**34.5405**	**0.0112**	**0.0000**	**34.8198**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.2100e-003	0.0121	4.0000e-005	7.8300e-003	3.0000e-005	7.8600e-003	2.0100e-003	3.0000e-005	2.0300e-003	0.0000	3.6861	3.6861	9.0000e-005	0.0000	3.6883
Total	**1.7800e-003**	**1.2100e-003**	**0.0121**	**4.0000e-005**	**7.8300e-003**	**3.0000e-005**	**7.8600e-003**	**2.0100e-003**	**3.0000e-005**	**2.0300e-003**	**0.0000**	**3.6861**	**3.6861**	**9.0000e-005**	**0.0000**	**3.6883**

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	4.8400e-003	0.0210	0.2984	3.9000e-004		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	34.5405	34.5405	0.0112	0.0000	34.8197
Paving	0.0230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0278**	**0.0210**	**0.2984**	**3.9000e-004**		**6.5000e-004**	**6.5000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**34.5405**	**34.5405**	**0.0112**	**0.0000**	**34.8197**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.2100e-003	0.0121	4.0000e-005	7.4000e-003	3.0000e-005	7.4300e-003	1.9000e-003	3.0000e-005	1.9300e-003	0.0000	3.6861	3.6861	9.0000e-005	0.0000	3.6883
Total	**1.7800e-003**	**1.2100e-003**	**0.0121**	**4.0000e-005**	**7.4000e-003**	**3.0000e-005**	**7.4300e-003**	**1.9000e-003**	**3.0000e-005**	**1.9300e-003**	**0.0000**	**3.6861**	**3.6861**	**9.0000e-005**	**0.0000**	**3.6883**

3.7 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	0.0543	0.5022	0.5085	8.2000e-004		0.0278	0.0278		0.0262	0.0262	0.0000	70.5449	70.5449	0.0156	0.0000	70.9346
Total	**0.0543**	**0.5022**	**0.5085**	**8.2000e-004**		**0.0278**	**0.0278**		**0.0262**	**0.0262**	**0.0000**	**70.5449**	**70.5449**	**0.0156**	**0.0000**	**70.9346**

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	0.0168	0.4656	0.1276	1.2900e-003	0.0299	1.1400e-003	0.0311	8.6500e-003	1.0900e-003	9.7400e-003	0.0000	122.4332	122.4332	6.2300e-003	0.0000	122.5891
Worker	0.0389	0.0264	0.2649	8.9000e-004	0.0919	6.2000e-004	0.0925	0.0244	5.7000e-004	0.0250	0.0000	80.6278	80.6278	1.8700e-003	0.0000	80.6745
Total	**0.0557**	**0.4920**	**0.3925**	**2.1800e-003**	**0.1218**	**1.7600e-003**	**0.1236**	**0.0331**	**1.6600e-003**	**0.0348**	**0.0000**	**203.0610**	**203.0610**	**8.1000e-003**	**0.0000**	**203.2636**

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	0.0274	0.1906	0.5270	8.2000e-004		9.4000e-003	9.4000e-003		9.4000e-003	9.4000e-003	0.0000	70.5448	70.5448	0.0156	0.0000	70.9345
Total	**0.0274**	**0.1906**	**0.5270**	**8.2000e-004**		**9.4000e-003**	**9.4000e-003**		**9.4000e-003**	**9.4000e-003**	**0.0000**	**70.5448**	**70.5448**	**0.0156**	**0.0000**	**70.9345**

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	0.0168	0.4656	0.1276	1.2900e-003	0.0286	1.1400e-003	0.0298	8.3400e-003	1.0900e-003	9.4300e-003	0.0000	122.4332	122.4332	6.2300e-003	0.0000	122.5891
Worker	0.0389	0.0264	0.2649	8.9000e-004	0.0871	6.2000e-004	0.0877	0.0233	5.7000e-004	0.0238	0.0000	80.6278	80.6278	1.8700e-003	0.0000	80.6745
Total	**0.0557**	**0.4920**	**0.3925**	**2.1800e-003**	**0.1158**	**1.7600e-003**	**0.1175**	**0.0316**	**1.6600e-003**	**0.0333**	**0.0000**	**203.0610**	**203.0610**	**8.1000e-003**	**0.0000**	**203.2636**

3.7 Building Construction - 2022

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	0.3022	2.7919	3.1143	5.0600e-003		0.1448	0.1448		0.1369	0.1369	0.0000	436.8909	436.8909	0.0958	0.0000	439.2850
Total	**0.3022**	**2.7919**	**3.1143**	**5.0600e-003**		**0.1448**	**0.1448**		**0.1369**	**0.1369**	**0.0000**	**436.8909**	**436.8909**	**0.0958**	**0.0000**	**439.2850**

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	0.0962	2.7160	0.7263	7.9100e-003	0.1851	6.1200e-003	0.1912	0.0535	5.8500e-003	0.0594	0.0000	750.9331	750.9331	0.0365	0.0000	751.8457
Worker	0.2242	0.1464	1.4998	5.3100e-003	0.5688	3.7500e-003	0.5726	0.1513	3.4500e-003	0.1547	0.0000	480.6763	480.6763	0.0104	0.0000	480.9353
Total	**0.3204**	**2.8624**	**2.2262**	**0.0132**	**0.7539**	**9.8700e-003**	**0.7638**	**0.2048**	**9.3000e-003**	**0.2141**	**0.0000**	**1,231.6094**	**1,231.6094**	**0.0469**	**0.0000**	**1,232.7810**

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	0.1588	1.1119	3.2569	5.0600e-003		0.0514	0.0514		0.0514	0.0514	0.0000	436.8903	436.8903	0.0958	0.0000	439.2845
Total	**0.1588**	**1.1119**	**3.2569**	**5.0600e-003**		**0.0514**	**0.0514**		**0.0514**	**0.0514**	**0.0000**	**436.8903**	**436.8903**	**0.0958**	**0.0000**	**439.2845**

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	0.0962	2.7160	0.7263	7.9100e-003	0.1773	6.1200e-003	0.1834	0.0516	5.8500e-003	0.0575	0.0000	750.9331	750.9331	0.0365	0.0000	751.8457
Worker	0.2242	0.1464	1.4998	5.3100e-003	0.5393	3.7500e-003	0.5431	0.1440	3.4500e-003	0.1475	0.0000	480.6763	480.6763	0.0104	0.0000	480.9353
Total	**0.3204**	**2.8624**	**2.2262**	**0.0132**	**0.7166**	**9.8700e-003**	**0.7265**	**0.1956**	**9.3000e-003**	**0.2049**	**0.0000**	**1,231.6094**	**1,231.6094**	**0.0469**	**0.0000**	**1,232.7810**

3.7 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2336	2.1569	2.5962	4.2500e-003		0.1047	0.1047		0.0991	0.0991	0.0000	366.4612	366.4612	0.0797	0.0000	368.4536
Total	**0.2336**	**2.1569**	**2.5962**	**4.2500e-003**		**0.1047**	**0.1047**		**0.0991**	**0.0991**	**0.0000**	**366.4612**	**366.4612**	**0.0797**	**0.0000**	**368.4536**

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	0.0607	1.7443	0.5271	6.4700e-003	0.1552	1.9000e-003	0.1571	0.0449	1.8100e-003	0.0467	0.0000	614.8309	614.8309	0.0221	0.0000	615.3823
Worker	0.1753	0.1102	1.1519	4.2800e-003	0.4769	3.0700e-003	0.4800	0.1268	2.8300e-003	0.1297	0.0000	387.4861	387.4861	7.7800e-003	0.0000	387.6807
Total	**0.2360**	**1.8545**	**1.6790**	**0.0108**	**0.6321**	**4.9700e-003**	**0.6371**	**0.1717**	**4.6400e-003**	**0.1764**	**0.0000**	**1,002.3170**	**1,002.3170**	**0.0298**	**0.0000**	**1,003.0629**

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	0.1255	0.8813	2.7274	4.2500e-003		0.0381	0.0381		0.0381	0.0381	0.0000	366.4608	366.4608	0.0797	0.0000	368.4532
Total	**0.1255**	**0.8813**	**2.7274**	**4.2500e-003**		**0.0381**	**0.0381**		**0.0381**	**0.0381**	**0.0000**	**366.4608**	**366.4608**	**0.0797**	**0.0000**	**368.4532**

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	0.0607	1.7443	0.5271	6.4700e-003	0.1487	1.9000e-003	0.1506	0.0433	1.8100e-003	0.0451	0.0000	614.8309	614.8309	0.0221	0.0000	615.3823
Worker	0.1753	0.1102	1.1519	4.2800e-003	0.4522	3.0700e-003	0.4553	0.1208	2.8300e-003	0.1236	0.0000	387.4861	387.4861	7.7800e-003	0.0000	387.6807
Total	**0.2360**	**1.8545**	**1.6790**	**0.0108**	**0.6009**	**4.9700e-003**	**0.6058**	**0.1640**	**4.6400e-003**	**0.1687**	**0.0000**	**1,002.3170**	**1,002.3170**	**0.0298**	**0.0000**	**1,003.0629**

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.3878					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.2815	0.3912	6.4000e-004		0.0153	0.0153		0.0153	0.0153	0.0000	55.1503	55.1503	3.3000e-003	0.0000	55.2328
Total	**3.4292**	**0.2815**	**0.3912**	**6.4000e-004**		**0.0153**	**0.0153**		**0.0153**	**0.0153**	**0.0000**	**55.1503**	**55.1503**	**3.3000e-003**	**0.0000**	**55.2328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0231	0.0145	0.1519	5.6000e-004	0.0629	4.1000e-004	0.0633	0.0167	3.7000e-004	0.0171	0.0000	51.0979	51.0979	1.0300e-003	0.0000	51.1236
Total	**0.0231**	**0.0145**	**0.1519**	**5.6000e-004**	**0.0629**	**4.1000e-004**	**0.0633**	**0.0167**	**3.7000e-004**	**0.0171**	**0.0000**	**51.0979**	**51.0979**	**1.0300e-003**	**0.0000**	**51.1236**

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	3.3878					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.2815	0.3912	6.4000e-004		0.0153	0.0153		0.0153	0.0153	0.0000	55.1502	55.1502	3.3000e-003	0.0000	55.2327
Total	**3.4292**	**0.2815**	**0.3912**	**6.4000e-004**		**0.0153**	**0.0153**		**0.0153**	**0.0153**	**0.0000**	**55.1502**	**55.1502**	**3.3000e-003**	**0.0000**	**55.2327**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0231	0.0145	0.1519	5.6000e-004	0.0596	4.1000e-004	0.0600	0.0159	3.7000e-004	0.0163	0.0000	51.0979	51.0979	1.0300e-003	0.0000	51.1236
Total	**0.0231**	**0.0145**	**0.1519**	**5.6000e-004**	**0.0596**	**4.1000e-004**	**0.0600**	**0.0159**	**3.7000e-004**	**0.0163**	**0.0000**	**51.0979**	**51.0979**	**1.0300e-003**	**0.0000**	**51.1236**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Expand Transit Network

Implement Trip Reduction Program

Transit Subsidy

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

	ROG	NOx	CO	SO2	Fugitive 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	2.0720	10.2236	14.0255	0.0439	2.7074	0.0321	2.7395	0.7254	0.0299	0.7553	0.0000	4,060.5587	4,060.5587	0.2399	0.0000	4,066.5559
Unmitigated	2.5370	13.0376	23.8954	0.0932	7.1950	0.0672	7.2621	1.9278	0.0626	1.9904	0.0000	8,584.9383	8,584.9383	0.3621	0.0000	8,593.9898

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Discount Club	8,098.41	8,570.05	7906.72	13,372,830	4,947,177
Gasoline/Service Station	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	1,691.00	1,691.00	1691.00	3,905,546	1,578,683
Strip Mall	1,280.10	1,280.10	1280.10	1,971,396	717,763
Total	11,069.51	11,541.15	10,877.82	19,249,772	7,243,623

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Discount Club	9.50	7.30	10.00	16.70	64.30	19.00	45	40	15
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Discount Club	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Gasoline/Service Station	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Parking Lot	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Single Family Housing	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Strip Mall	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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	172.6773	172.6773	0.0293	6.0600e-003	175.2149
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	174.9983	174.9983	0.0297	6.1400e-003	177.5700
NaturalGas Mitigated	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	305.0794	305.0794	5.8500e-003	5.5900e-003	306.8924
NaturalGas Unmitigated	0.0308	0.2650	0.1238	1.6800e-003		0.0213	0.0213		0.0213	0.0213	0.0000	305.0794	305.0794	5.8500e-003	5.5900e-003	306.8924

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Discount Club	360567	1.9400e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2412	19.2412	3.7000e-004	3.5000e-004	19.3556
Gasoline/Service Station	111719	6.0000e-004	5.4800e-003	4.6000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9618	5.9618	1.1000e-004	1.1000e-004	5.9972
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
Single Family Housing	5.17359e+006	0.0279	0.2384	0.1014	1.5200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	276.0823	276.0823	5.2900e-003	5.0600e-003	277.7229
Strip Mall	71100	3.8000e-004	3.4900e-003	2.9300e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7942	3.7942	7.0000e-005	7.0000e-005	3.8167
Total		**0.0308**	**0.2650**	**0.1238**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**305.0794**	**305.0794**	**5.8400e-003**	**5.5900e-003**	**306.8924**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Discount Club	360567	1.9400e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2412	19.2412	3.7000e-004	3.5000e-004	19.3556
Gasoline/Service Station	111719	6.0000e-004	5.4800e-003	4.6000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9618	5.9618	1.1000e-004	1.1000e-004	5.9972
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
Single Family Housing	5.17359e+006	0.0279	0.2384	0.1014	1.5200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	276.0823	276.0823	5.2900e-003	5.0600e-003	277.7229
Strip Mall	71100	3.8000e-004	3.4900e-003	2.9300e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7942	3.7942	7.0000e-005	7.0000e-005	3.8167
Total		**0.0308**	**0.2650**	**0.1238**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**305.0794**	**305.0794**	**5.8400e-003**	**5.5900e-003**	**306.8924**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	1.13799e+006	88.2676	0.0150	3.1000e-003	89.5647
Gasoline/Service Station	24520.7	1.9019	3.2000e-004	7.0000e-005	1.9299
Parking Lot	192400	14.9234	2.5300e-003	5.2000e-004	15.1427
Single Family Housing	676857	52.5000	8.9000e-003	1.8400e-003	53.2715

Strip Mall	224400	17.4054	2.9500e-003	6.1000e-004	17.6612
Total		**174.9983**	**0.0297**	**6.1400e-003**	**177.5700**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	1.13799e+006	88.2676	0.0150	3.1000e-003	89.5647
Gasoline/Service Station	24520.7	1.9019	3.2000e-004	7.0000e-005	1.9299
Parking Lot	192400	14.9234	2.5300e-003	5.2000e-004	15.1427
Single Family Housing	646934	50.1790	8.5100e-003	1.7600e-003	50.9164
Strip Mall	224400	17.4054	2.9500e-003	6.1000e-004	17.6612
Total		**172.6773**	**0.0293**	**6.0600e-003**	**175.2149**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	2.3920	0.0122	1.0161	5.0000e-005		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003	0.0000	1.5313	1.5313	1.1300e-003	0.0000	1.5596
Unmitigated	2.4138	0.0331	1.3492	1.8000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	22.6409	22.6409	2.5700e-003	3.7000e-004	22.8168

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	0.3388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0313					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.0700e-003	0.0177	7.5100e-003	1.1000e-004		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	20.4437	20.4437	3.9000e-004	3.7000e-004	20.5652
Landscaping	0.0417	0.0154	1.3416	7.0000e-005		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003	0.0000	2.1972	2.1972	2.1800e-003	0.0000	2.2516
Total	**2.4138**	**0.0331**	**1.3492**	**1.8000e-004**		**8.8200e-003**	**8.8200e-003**		**8.8200e-003**	**8.8200e-003**	**0.0000**	**22.6409**	**22.6409**	**2.5700e-003**	**3.7000e-004**	**22.8168**

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	0.3388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0313					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0219	0.0122	1.0161	5.0000e-005		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003	0.0000	1.5313	1.5313	1.1300e-003	0.0000	1.5596
Total	**2.3920**	**0.0122**	**1.0161**	**5.0000e-005**		**5.4800e-003**	**5.4800e-003**		**5.4800e-003**	**5.4800e-003**	**0.0000**	**1.5313**	**1.5313**	**1.1300e-003**	**0.0000**	**1.5596**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.0604	0.6665	0.0161	40.5307
Unmitigated	23.0791	0.8331	0.0201	49.9059

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Discount Club	11.2694 / 6.90705	10.1801	0.3683	8.9000e-003	22.0414
Gasoline/Service Station	0.398457 / 0.244215	0.3599	0.0130	3.1000e-004	0.7793
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	11.5974 / 7.31141	10.5316	0.3791	9.1600e-003	22.7390
Strip Mall	2.22218 / 1.36198	2.0074	0.0726	1.7600e-003	4.3463
Total		**23.0791**	**0.8330**	**0.0201**	**49.9060**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Discount Club	9.01551 / 6.48572	8.4047	0.2947	7.1300e-003	17.8976
Gasoline/Service Station	0.318765 / 0.229318	0.2972	0.0104	2.5000e-004	0.6328
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	9.27793 / 6.86542	8.7012	0.3033	7.3400e-003	18.4711
Strip Mall	1.77774 / 1.2789	1.6573	0.0581	1.4100e-003	3.5292
Total		**19.0604**	**0.6665**	**0.0161**	**40.5307**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	46.5580	2.7515	0.0000	115.3455
Unmitigated	186.2320	11.0060	0.0000	461.3820

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	654.31	132.8190	7.8494	0.0000	329.0535
Gasoline/Service Station	16.17	3.2824	0.1940	0.0000	8.1319
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	215.46	43.7364	2.5848	0.0000	108.3552

Strip Mall	31.5	6.3942	0.3779	0.0000	15.8414
Total		**186.2320**	**11.0060**	**0.0000**	**461.3820**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Discount Club	163.577	33.2048	1.9623	0.0000	82.2634
Gasoline/Service Station	4.0425	0.8206	0.0485	0.0000	2.0330
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	53.865	10.9341	0.6462	0.0000	27.0888
Strip Mall	7.875	1.5986	0.0945	0.0000	3.9604
Total		**46.5580**	**2.7515**	**0.0000**	**115.3455**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	6	8.00	365	89	0.20	Electrical

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Forklifts	0.1123	1.0509	1.2536	1.6700e-003		0.0649	0.0649		0.0597	0.0597	0.0000	147.0490	147.0490	0.0476	0.0000	148.2380
Total	**0.1123**	**1.0509**	**1.2536**	**1.6700e-003**		**0.0649**	**0.0649**		**0.0597**	**0.0597**	**0.0000**	**147.0490**	**147.0490**	**0.0476**	**0.0000**	**148.2380**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-172.8310	0.0000	0.0000	-172.8310

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	51.3 / 11.2	-172.8310	0.0000	0.0000	-172.8310
Total		**-172.8310**	**0.0000**	**0.0000**	**-172.8310**

Refrigeration Unit PM10 Emissions	Size (hp)	Load Factor	On/Off Cycle Factor	Emissions Factor (g/bhp-hr)	Daily Trucks with TRU (veh/day)	Cooling Time (hr/veh)	Emissions (g/day)	Emission Rate (g/sec)
35 MPH Roadway Truck Traffic	34	0.53	0.5	0.02	10	4.46E-02	8.05E-02	9.31E-07
15 MPH Parking Lot Truck Traffic	34	0.53	0.5	0.02	10	3.15E-02	5.67E-02	6.57E-07
Loading Dock Idling	34	0.53	0.5	0.02	10	2.50E-01	4.51E-01	5.21E-06

Truck Route PM10 Emissions	Trips (veh/day)	Emission Factor (g/mi)	Length (mi/veh)	Emissions (g/day)	Emission Rate (g/sec)	TRU Emission Rate (g/sec)	Total Emission Rate (g/sec)	Directional Rate (g/sec)
35 MPH Roadway Truck Traffic	101	7.73E-03	1.56	1.22E+00	1.41E-05	9.31E-07	1.51E-05	7.53E-06
15 MPH Parking Lot Truck Traffic	101	1.44E-02	0.47	6.85E-01	7.93E-06	6.57E-07	8.58E-06	4.29E-06

Truck Loading PM10 Emissions	Trips (veh/day)	Emission Factor (g/sec/veh)	Duration (sec/veh)	Emissions (g/day)	Emission Rate (g/sec)	TRU Emission Rate (g/sec)	Total Emission Rate (g/sec)
Loading Dock Idling	10	7.57E-10	900	6.81E-06	7.89E-11	5.21E-06	5.21E-06

Gas Station Idling PM10 Emissions	Trips (veh/day)	Emission Factor (g/sec/veh)	Duration (sec/veh)	Emissions (g/day)	Emission Rate (g/sec)	Total Emission Rate (g/sec)
Total Gas Station Vehicles	3,371					
Truck Queue Idling	201	7.38E-10	900	1.34E-04	1.55E-09	1.65E-09
Fueling Truck Idling	14	7.38E-10	900	9.30E-06	1.08E-10	

Gas Station TOG Emissions	Trips (veh/day)	Emission Factor (g/sec/veh)	Duration (sec/veh)	Emissions (g/day)	Emission Rate (g/sec)
Auto Queue Idling	3,371	5.36E-08	900	1.63E-01	1.88E-06

TOG Emissiosn Factors and Annual Emissions

Emissions Source	TOG Emissions Factor (lb/1,000 gallon)[1]	Annual Gasoline Throughput (gallons/year)	TOG Annual Emissions (lbs/year)	Benzene Emission Rate (lbs/hr)	Benzene Emission Rate (g/s)
Fueling		36,000,000			
Non-ORVR Vehicles	0.42		15,120.0	0.005178082	6.52E-04
ORVR Vehicles	0.021		756.0	0.000258904	3.26E-05
Bulk Transfer Losses	0.15		5,400.0	0.001849315	2.33E-04
Pressure Driven Losses	0.024		864.0	0.00029589	3.73E-05
Gasoline Hose Loses	0.009		324.0	0.000110959	1.40E-05
Total Transfer and Pressure Losses			22,464.0	0.007693151	9.69E-04
Fueling - Spillage	0.24		8,640.0	0.009863014	1.24E-03
Total Transfer/Pressure and Spillage			31,104.0	0.017556164	2.21E-03

Freeway Segment	Truck ADT[1]	Weighted Emission Factor (g/mi)[2]	Length (mi)	g/day	g/sec	Future Growth	Directional
I-80	5,639	0.006887834	1.188	46.14250932	0.000534057	0.000587463	0.000293731

Notes:

1. Caltrnas Traffic Data Branch, *2016 Annual Average Daily Truck Traffic on the California State Highway System* , http://www.dot.ca.gov/trafficops/census/
2. California Air Resources Board, EMFAC 2017.

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**
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** AERMOD Input Produced by:
** AERMOD View Ver. 9.8.3
** Lakes Environmental Software Inc.
** Date: 12/17/2019
** File: C:\Lakes\AERMOD View\__Fairview at
Northgate\NorthgateVallejo_HRA_PM10\NorthgateVallejo_HRA_PM10_012219.ADI
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** AERMOD Control Pathway
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   AVERTIME 1 24 ANNUAL
   URBANOPT 445458 Solano_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL NorthgateVallejo_HRA_PM10_012219.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = NB_TRUCK
** DESCRSRC northbound truck route
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 7.53E-06
** Vertical Dimension = 4.15
** SZINIT = 1.93
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** DESCRSRC southbound truck route
** PREFIX
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** Configuration = Adjacent
** Emission Rate = 7.53E-06
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LOCATION L0051097     VOLUME   567439.588 4219583.034 36.92
LOCATION L0051098     VOLUME   567439.652 4219579.435 36.94
LOCATION L0051099     VOLUME   567439.695 4219575.835 36.98
LOCATION L0051100     VOLUME   567439.738 4219572.235 37.02
LOCATION L0051101     VOLUME   567439.781 4219568.636 37.06
LOCATION L0051102     VOLUME   567439.824 4219565.036 37.01
LOCATION L0051103     VOLUME   567439.867 4219561.436 36.96
LOCATION L0051104     VOLUME   567439.909 4219557.836 36.91
LOCATION L0051105     VOLUME   567439.952 4219554.237 36.87
LOCATION L0051106     VOLUME   567439.995 4219550.637 36.83
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   LOCATION L0051107     VOLUME   567440.038 4219547.037 36.77
** End of LINE VOLUME Source ID = SB_TRUCK
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = TRUCK_CIR
** DESCRSRC truck circulation on site
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 8.58E-06
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 15
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** 567978.063, 4220188.124, 36.25, 3.70, 1.67
** 568014.002, 4220184.972, 36.38, 3.70, 1.67
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** 568029.134, 4220199.473, 37.17, 3.70, 1.67
** 568048.049, 4220366.556, 29.92, 3.70, 1.67
** 568046.788, 4220449.151, 30.57, 3.70, 1.67
** 568042.374, 4220454.195, 30.57, 3.70, 1.67
** 568031.025, 4220454.195, 31.38, 3.70, 1.67
** 567891.054, 4220454.195, 40.02, 3.70, 1.67
** 567877.183, 4220457.348, 40.10, 3.70, 1.67
** 567864.573, 4220461.761, 40.40, 3.70, 1.67
** 567857.007, 4220466.805, 39.99, 3.70, 1.67
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   LOCATION L0051109     VOLUME   567732.941 4220200.357 30.92
   LOCATION L0051110     VOLUME   567735.978 4220198.424 30.94
   LOCATION L0051111     VOLUME   567739.015 4220196.492 30.95
   LOCATION L0051112     VOLUME   567742.053 4220194.559 30.96
   LOCATION L0051113     VOLUME   567745.090 4220192.626 30.98
   LOCATION L0051114     VOLUME   567748.127 4220190.693 31.00
   LOCATION L0051115     VOLUME   567751.164 4220188.761 31.01
   LOCATION L0051116     VOLUME   567754.201 4220186.828 31.03
   LOCATION L0051117     VOLUME   567757.444 4220185.615 31.07
   LOCATION L0051118     VOLUME   567761.044 4220185.649 31.12
   LOCATION L0051119     VOLUME   567764.644 4220185.683 31.18
   LOCATION L0051120     VOLUME   567768.244 4220185.717 31.23
   LOCATION L0051121     VOLUME   567771.844 4220185.752 31.29
   LOCATION L0051122     VOLUME   567775.444 4220185.786 31.35
   LOCATION L0051123     VOLUME   567779.043 4220185.820 31.45
   LOCATION L0051124     VOLUME   567782.643 4220185.854 31.55
   LOCATION L0051125     VOLUME   567786.243 4220185.888 31.66
   LOCATION L0051126     VOLUME   567789.843 4220185.922 31.77
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LOCATION L0051128     VOLUME   567797.043 4220185.991 31.95
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LOCATION L0051130     VOLUME   567804.242 4220186.059 32.13
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LOCATION L0051133     VOLUME   567815.042 4220186.162 32.43
LOCATION L0051134     VOLUME   567818.642 4220186.196 32.53
LOCATION L0051135     VOLUME   567822.241 4220186.230 32.63
LOCATION L0051136     VOLUME   567825.841 4220186.264 32.73
LOCATION L0051137     VOLUME   567829.441 4220186.298 32.81
LOCATION L0051138     VOLUME   567833.041 4220186.333 32.89
LOCATION L0051139     VOLUME   567836.641 4220186.367 32.99
LOCATION L0051140     VOLUME   567840.241 4220186.401 33.09
LOCATION L0051141     VOLUME   567843.840 4220186.435 33.23
LOCATION L0051142     VOLUME   567847.440 4220186.469 33.38
LOCATION L0051143     VOLUME   567851.040 4220186.503 33.53
LOCATION L0051144     VOLUME   567854.640 4220186.538 33.68
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LOCATION L0051147     VOLUME   567865.440 4220186.640 34.05
LOCATION L0051148     VOLUME   567869.039 4220186.674 34.20
LOCATION L0051149     VOLUME   567872.639 4220186.708 34.35
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LOCATION L0051151     VOLUME   567879.839 4220186.777 34.64
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LOCATION L0051153     VOLUME   567887.039 4220186.845 34.89
LOCATION L0051154     VOLUME   567890.638 4220186.879 35.00
LOCATION L0051155     VOLUME   567894.238 4220186.913 35.10
LOCATION L0051156     VOLUME   567897.838 4220186.948 35.21
LOCATION L0051157     VOLUME   567901.438 4220186.982 35.30
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LOCATION L0051159     VOLUME   567908.638 4220187.050 35.46
LOCATION L0051160     VOLUME   567912.237 4220187.084 35.52
LOCATION L0051161     VOLUME   567915.837 4220187.119 35.58
LOCATION L0051162     VOLUME   567919.437 4220187.153 35.62
LOCATION L0051163     VOLUME   567923.037 4220187.187 35.68
LOCATION L0051164     VOLUME   567926.637 4220187.221 35.74
LOCATION L0051165     VOLUME   567930.237 4220187.255 35.81
LOCATION L0051166     VOLUME   567933.836 4220187.289 35.85
LOCATION L0051167     VOLUME   567937.436 4220187.324 35.90
LOCATION L0051168     VOLUME   567941.036 4220187.358 35.91
LOCATION L0051169     VOLUME   567944.636 4220187.392 35.92
LOCATION L0051170     VOLUME   567948.236 4220187.426 35.94
LOCATION L0051171     VOLUME   567951.836 4220187.460 35.97
LOCATION L0051172     VOLUME   567955.435 4220187.496 36.01
LOCATION L0051173     VOLUME   567959.034 4220187.596 36.07
LOCATION L0051174     VOLUME   567962.633 4220187.696 36.13
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LOCATION L0051175     VOLUME   567966.231 4220187.796 36.16
LOCATION L0051176     VOLUME   567969.830 4220187.896 36.20
LOCATION L0051177     VOLUME   567973.428 4220187.996 36.22
LOCATION L0051178     VOLUME   567977.027 4220188.096 36.24
LOCATION L0051179     VOLUME   567980.617 4220187.900 36.30
LOCATION L0051180     VOLUME   567984.203 4220187.586 36.40
LOCATION L0051181     VOLUME   567987.789 4220187.271 36.51
LOCATION L0051182     VOLUME   567991.376 4220186.957 36.67
LOCATION L0051183     VOLUME   567994.962 4220186.642 36.81
LOCATION L0051184     VOLUME   567998.548 4220186.327 36.84
LOCATION L0051185     VOLUME   568002.134 4220186.013 36.85
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LOCATION L0051190     VOLUME   568019.112 4220188.279 36.38
LOCATION L0051191     VOLUME   568022.135 4220190.234 36.42
LOCATION L0051192     VOLUME   568024.982 4220192.357 36.52
LOCATION L0051193     VOLUME   568026.796 4220195.466 36.78
LOCATION L0051194     VOLUME   568028.610 4220198.576 36.97
LOCATION L0051195     VOLUME   568029.422 4220202.018 37.11
LOCATION L0051196     VOLUME   568029.827 4220205.595 37.23
LOCATION L0051197     VOLUME   568030.232 4220209.173 37.37
LOCATION L0051198     VOLUME   568030.637 4220212.750 37.43
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LOCATION L0051201     VOLUME   568031.852 4220223.481 37.56
LOCATION L0051202     VOLUME   568032.257 4220227.058 37.61
LOCATION L0051203     VOLUME   568032.661 4220230.635 37.67
LOCATION L0051204     VOLUME   568033.066 4220234.213 37.50
LOCATION L0051205     VOLUME   568033.471 4220237.790 37.33
LOCATION L0051206     VOLUME   568033.876 4220241.367 37.12
LOCATION L0051207     VOLUME   568034.281 4220244.944 36.70
LOCATION L0051208     VOLUME   568034.686 4220248.521 36.27
LOCATION L0051209     VOLUME   568035.091 4220252.098 35.83
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LOCATION L0051214     VOLUME   568037.116 4220269.984 33.93
LOCATION L0051215     VOLUME   568037.521 4220273.561 33.66
LOCATION L0051216     VOLUME   568037.926 4220277.138 33.41
LOCATION L0051217     VOLUME   568038.331 4220280.716 33.16
LOCATION L0051218     VOLUME   568038.736 4220284.293 32.87
LOCATION L0051219     VOLUME   568039.141 4220287.870 32.56
LOCATION L0051220     VOLUME   568039.546 4220291.447 32.25
LOCATION L0051221     VOLUME   568039.951 4220295.024 31.93
LOCATION L0051222     VOLUME   568040.356 4220298.601 31.61
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LOCATION L0051224     VOLUME   568041.166 4220305.756 31.10
LOCATION L0051225     VOLUME   568041.571 4220309.333 30.92
LOCATION L0051226     VOLUME   568041.976 4220312.910 30.75
LOCATION L0051227     VOLUME   568042.381 4220316.487 30.62
LOCATION L0051228     VOLUME   568042.785 4220320.064 30.50
LOCATION L0051229     VOLUME   568043.190 4220323.641 30.37
LOCATION L0051230     VOLUME   568043.595 4220327.219 30.25
LOCATION L0051231     VOLUME   568044.000 4220330.796 30.13
LOCATION L0051232     VOLUME   568044.405 4220334.373 30.01
LOCATION L0051233     VOLUME   568044.810 4220337.950 29.92
LOCATION L0051234     VOLUME   568045.215 4220341.527 29.83
LOCATION L0051235     VOLUME   568045.620 4220345.104 29.77
LOCATION L0051236     VOLUME   568046.025 4220348.681 29.77
LOCATION L0051237     VOLUME   568046.430 4220352.259 29.77
LOCATION L0051238     VOLUME   568046.835 4220355.836 29.79
LOCATION L0051239     VOLUME   568047.240 4220359.413 29.83
LOCATION L0051240     VOLUME   568047.645 4220362.990 29.86
LOCATION L0051241     VOLUME   568048.048 4220366.567 29.90
LOCATION L0051242     VOLUME   568047.994 4220370.167 29.96
LOCATION L0051243     VOLUME   568047.939 4220373.766 30.02
LOCATION L0051244     VOLUME   568047.884 4220377.366 30.07
LOCATION L0051245     VOLUME   568047.829 4220380.966 30.11
LOCATION L0051246     VOLUME   568047.774 4220384.565 30.15
LOCATION L0051247     VOLUME   568047.719 4220388.165 30.22
LOCATION L0051248     VOLUME   568047.664 4220391.764 30.30
LOCATION L0051249     VOLUME   568047.609 4220395.364 30.37
LOCATION L0051250     VOLUME   568047.554 4220398.963 30.43
LOCATION L0051251     VOLUME   568047.499 4220402.563 30.50
LOCATION L0051252     VOLUME   568047.444 4220406.163 30.55
LOCATION L0051253     VOLUME   568047.389 4220409.762 30.56
LOCATION L0051254     VOLUME   568047.334 4220413.362 30.56
LOCATION L0051255     VOLUME   568047.279 4220416.961 30.57
LOCATION L0051256     VOLUME   568047.224 4220420.561 30.57
LOCATION L0051257     VOLUME   568047.169 4220424.161 30.57
LOCATION L0051258     VOLUME   568047.114 4220427.760 30.58
LOCATION L0051259     VOLUME   568047.059 4220431.360 30.58
LOCATION L0051260     VOLUME   568047.004 4220434.959 30.58
LOCATION L0051261     VOLUME   568046.949 4220438.559 30.57
LOCATION L0051262     VOLUME   568046.894 4220442.158 30.54
LOCATION L0051263     VOLUME   568046.839 4220445.758 30.51
LOCATION L0051264     VOLUME   568046.652 4220449.307 30.49
LOCATION L0051265     VOLUME   568044.281 4220452.016 30.60
LOCATION L0051266     VOLUME   568041.670 4220454.195 30.70
LOCATION L0051267     VOLUME   568038.070 4220454.195 30.95
LOCATION L0051268     VOLUME   568034.470 4220454.195 31.19
LOCATION L0051269     VOLUME   568030.870 4220454.195 31.52
LOCATION L0051270     VOLUME   568027.270 4220454.195 31.89
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LOCATION L0051271     VOLUME   568023.670 4220454.195 32.26
LOCATION L0051272     VOLUME   568020.070 4220454.195 32.65
LOCATION L0051273     VOLUME   568016.470 4220454.195 33.06
LOCATION L0051274     VOLUME   568012.870 4220454.195 33.56
LOCATION L0051275     VOLUME   568009.270 4220454.195 34.05
LOCATION L0051276     VOLUME   568005.670 4220454.195 34.63
LOCATION L0051277     VOLUME   568002.070 4220454.195 35.21
LOCATION L0051278     VOLUME   567998.470 4220454.195 35.75
LOCATION L0051279     VOLUME   567994.870 4220454.195 36.27
LOCATION L0051280     VOLUME   567991.270 4220454.195 36.74
LOCATION L0051281     VOLUME   567987.670 4220454.195 37.13
LOCATION L0051282     VOLUME   567984.070 4220454.195 37.49
LOCATION L0051283     VOLUME   567980.470 4220454.195 37.70
LOCATION L0051284     VOLUME   567976.870 4220454.195 37.90
LOCATION L0051285     VOLUME   567973.270 4220454.195 38.07
LOCATION L0051286     VOLUME   567969.670 4220454.195 38.23
LOCATION L0051287     VOLUME   567966.070 4220454.195 38.41
LOCATION L0051288     VOLUME   567962.470 4220454.195 38.61
LOCATION L0051289     VOLUME   567958.870 4220454.195 38.79
LOCATION L0051290     VOLUME   567955.270 4220454.195 38.97
LOCATION L0051291     VOLUME   567951.670 4220454.195 39.14
LOCATION L0051292     VOLUME   567948.070 4220454.195 39.25
LOCATION L0051293     VOLUME   567944.470 4220454.195 39.37
LOCATION L0051294     VOLUME   567940.870 4220454.195 39.47
LOCATION L0051295     VOLUME   567937.270 4220454.195 39.57
LOCATION L0051296     VOLUME   567933.670 4220454.195 39.62
LOCATION L0051297     VOLUME   567930.070 4220454.195 39.65
LOCATION L0051298     VOLUME   567926.470 4220454.195 39.67
LOCATION L0051299     VOLUME   567922.870 4220454.195 39.66
LOCATION L0051300     VOLUME   567919.270 4220454.195 39.65
LOCATION L0051301     VOLUME   567915.670 4220454.195 39.66
LOCATION L0051302     VOLUME   567912.070 4220454.195 39.67
LOCATION L0051303     VOLUME   567908.470 4220454.195 39.71
LOCATION L0051304     VOLUME   567904.870 4220454.195 39.76
LOCATION L0051305     VOLUME   567901.270 4220454.195 39.83
LOCATION L0051306     VOLUME   567897.670 4220454.195 39.90
LOCATION L0051307     VOLUME   567894.070 4220454.195 39.97
LOCATION L0051308     VOLUME   567890.485 4220454.325 40.03
LOCATION L0051309     VOLUME   567886.974 4220455.123 40.12
LOCATION L0051310     VOLUME   567883.464 4220455.920 40.14
LOCATION L0051311     VOLUME   567879.953 4220456.718 40.19
LOCATION L0051312     VOLUME   567876.466 4220457.599 40.26
LOCATION L0051313     VOLUME   567873.069 4220458.788 40.35
LOCATION L0051314     VOLUME   567869.671 4220459.977 40.43
LOCATION L0051315     VOLUME   567866.273 4220461.166 40.44
LOCATION L0051316     VOLUME   567863.076 4220462.759 40.41
LOCATION L0051317     VOLUME   567860.081 4220464.756 40.28
LOCATION L0051318     VOLUME   567857.085 4220466.753 40.08
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** End of LINE VOLUME Source ID = TRUCK_CIR
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = TRUCK_IDLE
** DESCRSRC truck idling and refrigeration emissions at docks
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 5.21E-06
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 3
** 567931.897, 4220220.264, 36.04, 3.70, 1.67
** 567930.351, 4220197.584, 35.67, 3.70, 1.67
** 567954.748, 4220195.523, 35.91, 3.70, 1.67
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   LOCATION L0051319     VOLUME   567931.775 4220218.468 35.89
   LOCATION L0051320     VOLUME   567931.530 4220214.876 35.81
   LOCATION L0051321     VOLUME   567931.285 4220211.284 35.74
   LOCATION L0051322     VOLUME   567931.040 4220207.693 35.70
   LOCATION L0051323     VOLUME   567930.796 4220204.101 35.70
   LOCATION L0051324     VOLUME   567930.551 4220200.509 35.69
   LOCATION L0051325     VOLUME   567931.017 4220197.528 35.71
   LOCATION L0051326     VOLUME   567934.604 4220197.225 35.73
   LOCATION L0051327     VOLUME   567938.191 4220196.922 35.75
   LOCATION L0051328     VOLUME   567941.779 4220196.619 35.77
   LOCATION L0051329     VOLUME   567945.366 4220196.316 35.78
   LOCATION L0051330     VOLUME   567948.953 4220196.012 35.83
   LOCATION L0051331     VOLUME   567952.540 4220195.709 35.89
** End of LINE VOLUME Source ID = TRUCK_IDLE
   LOCATION GS_TRUCK     AREA       567808.130  4220196.180       32.490
** DESCRSRC diesel truck idling at gas station
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = NB2_TRUCK
** DESCRSRC northbound truck route on-ramp
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 7.53E-06
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 6
** 567645.590, 4219930.720, 31.88, 3.70, 1.67
** 567624.344, 4219930.086, 32.14, 3.70, 1.67
** 567611.025, 4219939.282, 31.90, 3.70, 1.67
** 567600.243, 4219951.650, 31.66, 3.70, 1.67
** 567598.657, 4219971.945, 32.42, 3.70, 1.67
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** 567603.097, 4219994.144, 32.17, 3.70, 1.67
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LOCATION L0051333 VOLUME 567640.193 4219930.559 31.92
LOCATION L0051334 VOLUME 567636.594 4219930.452 31.96
LOCATION L0051335 VOLUME 567632.996 4219930.344 32.00
LOCATION L0051336 VOLUME 567629.398 4219930.237 32.04
LOCATION L0051337 VOLUME 567625.799 4219930.130 32.09
LOCATION L0051338 VOLUME 567622.579 4219931.304 32.07
LOCATION L0051339 VOLUME 567619.617 4219933.350 32.00
LOCATION L0051340 VOLUME 567616.655 4219935.395 31.95
LOCATION L0051341 VOLUME 567613.692 4219937.441 31.91
LOCATION L0051342 VOLUME 567610.789 4219939.553 31.89
LOCATION L0051343 VOLUME 567608.423 4219942.266 31.88
LOCATION L0051344 VOLUME 567606.058 4219944.980 31.89
LOCATION L0051345 VOLUME 567603.692 4219947.693 31.93
LOCATION L0051346 VOLUME 567601.326 4219950.407 31.98
LOCATION L0051347 VOLUME 567600.091 4219953.595 32.03
LOCATION L0051348 VOLUME 567599.810 4219957.184 32.04
LOCATION L0051349 VOLUME 567599.530 4219960.773 32.06
LOCATION L0051350 VOLUME 567599.250 4219964.362 32.13
LOCATION L0051351 VOLUME 567598.969 4219967.951 32.19
LOCATION L0051352 VOLUME 567598.689 4219971.540 32.25
LOCATION L0051353 VOLUME 567599.283 4219975.077 32.23
LOCATION L0051354 VOLUME 567599.989 4219978.607 32.21
LOCATION L0051355 VOLUME 567600.695 4219982.137 32.22
LOCATION L0051356 VOLUME 567601.401 4219985.667 32.27
LOCATION L0051357 VOLUME 567602.107 4219989.197 32.32
LOCATION L0051358 VOLUME 567602.813 4219992.727 32.37
** End of LINE VOLUME Source ID = NB2_TRUCK
** --
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SB2_TRUCK
** DESCRSRC southbound truck route off-ramp
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 7.53E-06
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 7
** 567400.927, 4219736.634, 39.38, 3.70, 1.67
** 567402.830, 4219754.712, 40.92, 3.70, 1.67
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** 567451.037, 4219806.408, 41.34, 3.70, 1.67
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   SRCPARAM L0051303     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051304     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051305     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051306     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051307     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051308     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051309     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051310     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051311     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051312     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051313     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051314     0.00000004066      3.70      1.67      1.93
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   SRCPARAM L0051316     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051317     0.00000004066      3.70      1.67      1.93
   SRCPARAM L0051318     0.00000004066      3.70      1.67      1.93
** ------------------------------------------------------------------
** LINE VOLUME Source ID = TRUCK_IDLE
   SRCPARAM L0051319     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051320     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051321     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051322     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051323     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051324     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051325     0.0000004008      3.70      1.67      1.93
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   SRCPARAM L0051327     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051328     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051329     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051330     0.0000004008      3.70      1.67      1.93
   SRCPARAM L0051331     0.0000004008      3.70      1.67      1.93
** ------------------------------------------------------------------
   SRCPARAM GS_TRUCK      1.65E-09     3.700    48.310    56.410     0.000
** LINE VOLUME Source ID = NB2_TRUCK
   SRCPARAM L0051332     0.0000002789      3.70      1.67      1.93
   SRCPARAM L0051333     0.0000002789      3.70      1.67      1.93
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   SRCPARAM L0051336     0.0000002789      3.70      1.67      1.93
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   SRCPARAM L0051337     0.0000002789      3.70      1.67      1.93
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   SRCPARAM L0051341     0.0000002789      3.70      1.67      1.93
   SRCPARAM L0051342     0.0000002789      3.70      1.67      1.93
   SRCPARAM L0051343     0.0000002789      3.70      1.67      1.93
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   SRCPARAM L0051346     0.0000002789      3.70      1.67      1.93
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   SRCPARAM L0051348     0.0000002789      3.70      1.67      1.93
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   SRCPARAM L0051354     0.0000002789      3.70      1.67      1.93
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   SRCPARAM L0051357     0.0000002789      3.70      1.67      1.93
   SRCPARAM L0051358     0.0000002789      3.70      1.67      1.93
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SB2_TRUCK
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   SRCPARAM L0051360     0.0000001537      3.70      1.67      1.93
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   SRCPARAM L0051362     0.0000001537      3.70      1.67      1.93
   SRCPARAM L0051363     0.0000001537      3.70      1.67      1.93
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   SRCPARAM L0051366     0.0000001537      3.70      1.67      1.93
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   SRCPARAM L0051374     0.0000001537      3.70      1.67      1.93
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   SRCPARAM L0051376     0.0000001537      3.70      1.67      1.93
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   SRCPARAM L0051380     0.0000001537      3.70      1.67      1.93
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   SRCPARAM L0051382     0.0000001537      3.70      1.67      1.93
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   SRCPARAM L0051383     0.0000001537      3.70      1.67      1.93
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   SRCPARAM L0051407     0.0000001537      3.70      1.67      1.93
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   SRCGROUP ALL
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** AERMOD Receptor Pathway
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**
**
RE STARTING
   INCLUDED NorthgateVallejo_HRA_PM10_012219.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
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   PROFFILE NapaCountyAirport_MetData\724955.PFL
   SURFDATA 93227 2009 Napa_County_Airport
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   PROFBASE 4.3 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST NORTHGATEVALLEJO_HRA_PM10_012219.AD\01H1GALL.PLT 31
   PLOTFILE 24 ALL 1ST NORTHGATEVALLEJO_HRA_PM10_012219.AD\24H1GALL.PLT 32
   PLOTFILE ANNUAL ALL NORTHGATEVALLEJO_HRA_PM10_012219.AD\AN00GALL.PLT 33
   SUMMFILE NorthgateVallejo_HRA_PM10_012219.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
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** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 1/16/2019
** File:
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA_PM10\NorthgateVallejo_HRA_PM10\Nor
thgateVallejo_HRA_PM10.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H
   MODELOPT DFAULT CONC
   AVERTIME 1 24 ANNUAL
   URBANOPT 445458 Solano_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL NorthgateVallejo_HRA_PM10.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = NB_TRUCK
** DESCRSRC northbound truck route
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 0.0000201
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 18
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SB_TRUCK
** DESCRSRC southbound truck route
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 0.0000201
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LOCATION L0049269     VOLUME   567649.487 4220046.842 31.40
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = TRUCK_CIR
** DESCRSRC truck circulation on site
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 7.72E-06
** Vertical Dimension = 4.15
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LOCATION L0006643     VOLUME   568032.661 4220230.635 37.67
LOCATION L0006644     VOLUME   568033.066 4220234.213 37.50
LOCATION L0006645     VOLUME   568033.471 4220237.790 37.33
LOCATION L0006646     VOLUME   568033.876 4220241.367 37.12
LOCATION L0006647     VOLUME   568034.281 4220244.944 36.70
LOCATION L0006648     VOLUME   568034.686 4220248.521 36.27
LOCATION L0006649     VOLUME   568035.091 4220252.098 35.83
LOCATION L0006650     VOLUME   568035.496 4220255.676 35.37
LOCATION L0006651     VOLUME   568035.901 4220259.253 34.91
LOCATION L0006652     VOLUME   568036.306 4220262.830 34.51
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LOCATION L0006654     VOLUME   568037.116 4220269.984 33.93
LOCATION L0006655     VOLUME   568037.521 4220273.561 33.66
LOCATION L0006656     VOLUME   568037.926 4220277.138 33.41
LOCATION L0006657     VOLUME   568038.331 4220280.716 33.16
LOCATION L0006658     VOLUME   568038.736 4220284.293 32.87
LOCATION L0006659     VOLUME   568039.141 4220287.870 32.56
LOCATION L0006660     VOLUME   568039.546 4220291.447 32.25
LOCATION L0006661     VOLUME   568039.951 4220295.024 31.93
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LOCATION L0006662     VOLUME   568040.356 4220298.601 31.61
LOCATION L0006663     VOLUME   568040.761 4220302.178 31.31
LOCATION L0006664     VOLUME   568041.166 4220305.756 31.10
LOCATION L0006665     VOLUME   568041.571 4220309.333 30.92
LOCATION L0006666     VOLUME   568041.976 4220312.910 30.75
LOCATION L0006667     VOLUME   568042.381 4220316.487 30.62
LOCATION L0006668     VOLUME   568042.785 4220320.064 30.50
LOCATION L0006669     VOLUME   568043.190 4220323.641 30.37
LOCATION L0006670     VOLUME   568043.595 4220327.219 30.25
LOCATION L0006671     VOLUME   568044.000 4220330.796 30.13
LOCATION L0006672     VOLUME   568044.405 4220334.373 30.01
LOCATION L0006673     VOLUME   568044.810 4220337.950 29.92
LOCATION L0006674     VOLUME   568045.215 4220341.527 29.83
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LOCATION L0006676     VOLUME   568046.025 4220348.681 29.77
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LOCATION L0006678     VOLUME   568046.835 4220355.836 29.79
LOCATION L0006679     VOLUME   568047.240 4220359.413 29.83
LOCATION L0006680     VOLUME   568047.645 4220362.990 29.86
LOCATION L0006681     VOLUME   568048.048 4220366.567 29.90
LOCATION L0006682     VOLUME   568047.994 4220370.167 29.96
LOCATION L0006683     VOLUME   568047.939 4220373.766 30.02
LOCATION L0006684     VOLUME   568047.884 4220377.366 30.07
LOCATION L0006685     VOLUME   568047.829 4220380.966 30.11
LOCATION L0006686     VOLUME   568047.774 4220384.565 30.15
LOCATION L0006687     VOLUME   568047.719 4220388.165 30.22
LOCATION L0006688     VOLUME   568047.664 4220391.764 30.30
LOCATION L0006689     VOLUME   568047.609 4220395.364 30.37
LOCATION L0006690     VOLUME   568047.554 4220398.963 30.43
LOCATION L0006691     VOLUME   568047.499 4220402.563 30.50
LOCATION L0006692     VOLUME   568047.444 4220406.163 30.55
LOCATION L0006693     VOLUME   568047.389 4220409.762 30.56
LOCATION L0006694     VOLUME   568047.334 4220413.362 30.56
LOCATION L0006695     VOLUME   568047.279 4220416.961 30.57
LOCATION L0006696     VOLUME   568047.224 4220420.561 30.57
LOCATION L0006697     VOLUME   568047.169 4220424.161 30.57
LOCATION L0006698     VOLUME   568047.114 4220427.760 30.58
LOCATION L0006699     VOLUME   568047.059 4220431.360 30.58
LOCATION L0006700     VOLUME   568047.004 4220434.959 30.58
LOCATION L0006701     VOLUME   568046.949 4220438.559 30.57
LOCATION L0006702     VOLUME   568046.894 4220442.158 30.54
LOCATION L0006703     VOLUME   568046.839 4220445.758 30.51
LOCATION L0006704     VOLUME   568046.652 4220449.307 30.49
LOCATION L0006705     VOLUME   568044.281 4220452.016 30.60
LOCATION L0006706     VOLUME   568041.670 4220454.195 30.70
LOCATION L0006707     VOLUME   568038.070 4220454.195 30.95
LOCATION L0006708     VOLUME   568034.470 4220454.195 31.19
LOCATION L0006709     VOLUME   568030.870 4220454.195 31.52
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LOCATION L0006710     VOLUME   568027.270 4220454.195 31.89
LOCATION L0006711     VOLUME   568023.670 4220454.195 32.26
LOCATION L0006712     VOLUME   568020.070 4220454.195 32.65
LOCATION L0006713     VOLUME   568016.470 4220454.195 33.06
LOCATION L0006714     VOLUME   568012.870 4220454.195 33.56
LOCATION L0006715     VOLUME   568009.270 4220454.195 34.05
LOCATION L0006716     VOLUME   568005.670 4220454.195 34.63
LOCATION L0006717     VOLUME   568002.070 4220454.195 35.21
LOCATION L0006718     VOLUME   567998.470 4220454.195 35.75
LOCATION L0006719     VOLUME   567994.870 4220454.195 36.27
LOCATION L0006720     VOLUME   567991.270 4220454.195 36.74
LOCATION L0006721     VOLUME   567987.670 4220454.195 37.13
LOCATION L0006722     VOLUME   567984.070 4220454.195 37.49
LOCATION L0006723     VOLUME   567980.470 4220454.195 37.70
LOCATION L0006724     VOLUME   567976.870 4220454.195 37.90
LOCATION L0006725     VOLUME   567973.270 4220454.195 38.07
LOCATION L0006726     VOLUME   567969.670 4220454.195 38.23
LOCATION L0006727     VOLUME   567966.070 4220454.195 38.41
LOCATION L0006728     VOLUME   567962.470 4220454.195 38.61
LOCATION L0006729     VOLUME   567958.870 4220454.195 38.79
LOCATION L0006730     VOLUME   567955.270 4220454.195 38.97
LOCATION L0006731     VOLUME   567951.670 4220454.195 39.14
LOCATION L0006732     VOLUME   567948.070 4220454.195 39.25
LOCATION L0006733     VOLUME   567944.470 4220454.195 39.37
LOCATION L0006734     VOLUME   567940.870 4220454.195 39.47
LOCATION L0006735     VOLUME   567937.270 4220454.195 39.57
LOCATION L0006736     VOLUME   567933.670 4220454.195 39.62
LOCATION L0006737     VOLUME   567930.070 4220454.195 39.65
LOCATION L0006738     VOLUME   567926.470 4220454.195 39.67
LOCATION L0006739     VOLUME   567922.870 4220454.195 39.66
LOCATION L0006740     VOLUME   567919.270 4220454.195 39.65
LOCATION L0006741     VOLUME   567915.670 4220454.195 39.66
LOCATION L0006742     VOLUME   567912.070 4220454.195 39.67
LOCATION L0006743     VOLUME   567908.470 4220454.195 39.71
LOCATION L0006744     VOLUME   567904.870 4220454.195 39.76
LOCATION L0006745     VOLUME   567901.270 4220454.195 39.83
LOCATION L0006746     VOLUME   567897.670 4220454.195 39.90
LOCATION L0006747     VOLUME   567894.070 4220454.195 39.97
LOCATION L0006748     VOLUME   567890.485 4220454.325 40.03
LOCATION L0006749     VOLUME   567886.974 4220455.123 40.12
LOCATION L0006750     VOLUME   567883.464 4220455.920 40.14
LOCATION L0006751     VOLUME   567879.953 4220456.718 40.19
LOCATION L0006752     VOLUME   567876.466 4220457.599 40.26
LOCATION L0006753     VOLUME   567873.069 4220458.788 40.35
LOCATION L0006754     VOLUME   567869.671 4220459.977 40.43
LOCATION L0006755     VOLUME   567866.273 4220461.166 40.44
LOCATION L0006756     VOLUME   567863.076 4220462.759 40.41
LOCATION L0006757     VOLUME   567860.081 4220464.756 40.28
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   LOCATION L0006758     VOLUME   567857.085 4220466.753 40.08
** End of LINE VOLUME Source ID = TRUCK_CIR
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = TRUCK_IDLE
** DESCRSRC truck idling and refrigeration emissions at docks
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 0.0118
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 3
** 567931.897, 4220220.264, 36.04, 0.00, 1.67
** 567930.351, 4220197.584, 35.67, 0.00, 1.67
** 567954.748, 4220195.523, 35.91, 0.00, 1.67
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   LOCATION L0006759     VOLUME   567931.775 4220218.468 35.89
   LOCATION L0006760     VOLUME   567931.530 4220214.876 35.81
   LOCATION L0006761     VOLUME   567931.285 4220211.284 35.74
   LOCATION L0006762     VOLUME   567931.040 4220207.693 35.70
   LOCATION L0006763     VOLUME   567930.796 4220204.101 35.70
   LOCATION L0006764     VOLUME   567930.551 4220200.509 35.69
   LOCATION L0006765     VOLUME   567931.017 4220197.528 35.71
   LOCATION L0006766     VOLUME   567934.604 4220197.225 35.73
   LOCATION L0006767     VOLUME   567938.191 4220196.922 35.75
   LOCATION L0006768     VOLUME   567941.779 4220196.619 35.77
   LOCATION L0006769     VOLUME   567945.366 4220196.316 35.78
   LOCATION L0006770     VOLUME   567948.953 4220196.012 35.83
   LOCATION L0006771     VOLUME   567952.540 4220195.709 35.89
** End of LINE VOLUME Source ID = TRUCK_IDLE
   LOCATION GS_TRUCK     AREA       567808.130  4220196.180       32.490
** DESCRSRC diesel truck idling at gas station
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = NB2_TRUCK
** DESCRSRC northbound truck route on-ramp
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 0.0000201
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 6
** 567645.590, 4219930.720, 31.88, 0.00, 1.67
** 567624.344, 4219930.086, 32.14, 0.00, 1.67
** 567611.025, 4219939.282, 31.90, 0.00, 1.67
** 567600.243, 4219951.650, 31.66, 0.00, 1.67
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** 567598.657, 4219971.945, 32.42, 0.00, 1.67
** 567603.097, 4219994.144, 32.17, 0.00, 1.67
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   LOCATION L0049490     VOLUME   567643.791 4219930.667 31.89
   LOCATION L0049491     VOLUME   567640.193 4219930.559 31.92
   LOCATION L0049492     VOLUME   567636.594 4219930.452 31.96
   LOCATION L0049493     VOLUME   567632.996 4219930.344 32.00
   LOCATION L0049494     VOLUME   567629.398 4219930.237 32.04
   LOCATION L0049495     VOLUME   567625.799 4219930.130 32.09
   LOCATION L0049496     VOLUME   567622.579 4219931.304 32.07
   LOCATION L0049497     VOLUME   567619.617 4219933.350 32.00
   LOCATION L0049498     VOLUME   567616.655 4219935.395 31.95
   LOCATION L0049499     VOLUME   567613.692 4219937.441 31.91
   LOCATION L0049500     VOLUME   567610.789 4219939.553 31.89
   LOCATION L0049501     VOLUME   567608.423 4219942.266 31.88
   LOCATION L0049502     VOLUME   567606.058 4219944.980 31.89
   LOCATION L0049503     VOLUME   567603.692 4219947.693 31.93
   LOCATION L0049504     VOLUME   567601.326 4219950.407 31.98
   LOCATION L0049505     VOLUME   567600.091 4219953.595 32.03
   LOCATION L0049506     VOLUME   567599.810 4219957.184 32.04
   LOCATION L0049507     VOLUME   567599.530 4219960.773 32.06
   LOCATION L0049508     VOLUME   567599.250 4219964.362 32.13
   LOCATION L0049509     VOLUME   567598.969 4219967.951 32.19
   LOCATION L0049510     VOLUME   567598.689 4219971.540 32.25
   LOCATION L0049511     VOLUME   567599.283 4219975.077 32.23
   LOCATION L0049512     VOLUME   567599.989 4219978.607 32.21
   LOCATION L0049513     VOLUME   567600.695 4219982.137 32.22
   LOCATION L0049514     VOLUME   567601.401 4219985.667 32.27
   LOCATION L0049515     VOLUME   567602.107 4219989.197 32.32
   LOCATION L0049516     VOLUME   567602.813 4219992.727 32.37
** End of LINE VOLUME Source ID = NB2_TRUCK
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SB2_TRUCK
** DESCRSRC southbound truck route off-ramp
** PREFIX
** Length of Side = 3.60
** Configuration = Adjacent
** Emission Rate = 0.0000201
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 7
** 567400.927, 4219736.634, 39.38, 0.00, 1.67
** 567402.830, 4219754.712, 40.92, 0.00, 1.67
** 567428.837, 4219782.938, 41.90, 0.00, 1.67
** 567451.037, 4219806.408, 41.34, 0.00, 1.67
** 567485.924, 4219843.197, 37.71, 0.00, 1.67
** 567498.927, 4219865.081, 37.89, 0.00, 1.67
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** 567505.135, 4219875.225, 37.87, 0.00, 1.67
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   LOCATION L0049518     VOLUME   567401.493 4219742.005 40.17
   LOCATION L0049519     VOLUME   567401.869 4219745.585 40.46
   LOCATION L0049520     VOLUME   567402.246 4219749.165 40.77
   LOCATION L0049521     VOLUME   567402.623 4219752.745 41.08
   LOCATION L0049522     VOLUME   567403.930 4219755.905 41.31
   LOCATION L0049523     VOLUME   567406.369 4219758.553 41.42
   LOCATION L0049524     VOLUME   567408.808 4219761.200 41.48
   LOCATION L0049525     VOLUME   567411.248 4219763.848 41.55
   LOCATION L0049526     VOLUME   567413.687 4219766.496 41.60
   LOCATION L0049527     VOLUME   567416.126 4219769.143 41.61
   LOCATION L0049528     VOLUME   567418.566 4219771.791 41.64
   LOCATION L0049529     VOLUME   567421.005 4219774.438 41.69
   LOCATION L0049530     VOLUME   567423.444 4219777.086 41.72
   LOCATION L0049531     VOLUME   567425.884 4219779.733 41.76
   LOCATION L0049532     VOLUME   567428.323 4219782.381 41.80
   LOCATION L0049533     VOLUME   567430.790 4219785.003 41.83
   LOCATION L0049534     VOLUME   567433.263 4219787.618 41.84
   LOCATION L0049535     VOLUME   567435.737 4219790.234 41.86
   LOCATION L0049536     VOLUME   567438.211 4219792.849 41.88
   LOCATION L0049537     VOLUME   567440.685 4219795.464 41.88
   LOCATION L0049538     VOLUME   567443.159 4219798.080 41.86
   LOCATION L0049539     VOLUME   567445.633 4219800.695 41.83
   LOCATION L0049540     VOLUME   567448.107 4219803.310 41.78
   LOCATION L0049541     VOLUME   567450.581 4219805.925 41.72
   LOCATION L0049542     VOLUME   567453.057 4219808.538 41.65
   LOCATION L0049543     VOLUME   567455.535 4219811.150 41.58
   LOCATION L0049544     VOLUME   567458.012 4219813.763 41.50
   LOCATION L0049545     VOLUME   567460.489 4219816.375 41.41
   LOCATION L0049546     VOLUME   567462.966 4219818.987 41.32
   LOCATION L0049547     VOLUME   567465.443 4219821.599 41.19
   LOCATION L0049548     VOLUME   567467.920 4219824.212 41.01
   LOCATION L0049549     VOLUME   567470.397 4219826.824 40.74
   LOCATION L0049550     VOLUME   567472.874 4219829.436 40.31
   LOCATION L0049551     VOLUME   567475.352 4219832.048 39.75
   LOCATION L0049552     VOLUME   567477.829 4219834.661 39.07
   LOCATION L0049553     VOLUME   567480.306 4219837.273 38.63
   LOCATION L0049554     VOLUME   567482.783 4219839.885 38.27
   LOCATION L0049555     VOLUME   567485.260 4219842.497 37.82
   LOCATION L0049556     VOLUME   567487.270 4219845.463 37.56
   LOCATION L0049557     VOLUME   567489.109 4219848.558 37.71
   LOCATION L0049558     VOLUME   567490.948 4219851.653 37.76
   LOCATION L0049559     VOLUME   567492.787 4219854.748 37.66
   LOCATION L0049560     VOLUME   567494.626 4219857.842 37.55
   LOCATION L0049561     VOLUME   567496.465 4219860.937 37.70
   LOCATION L0049562     VOLUME   567498.304 4219864.032 37.75
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   LOCATION L0049563     VOLUME   567500.170 4219867.111 37.72
   LOCATION L0049564     VOLUME   567502.049 4219870.181 37.62
   LOCATION L0049565     VOLUME   567503.928 4219873.252 37.59
** End of LINE VOLUME Source ID = SB2_TRUCK
** Source Parameters **
** LINE VOLUME Source ID = NB_TRUCK
   SRCPARAM L0048843     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048844     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048845     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048846     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048847     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048848     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048849     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048850     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048851     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048852     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048853     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048854     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048855     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048856     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048857     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048858     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048859     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048860     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048861     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048862     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048863     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048864     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048865     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048866     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048867     0.00000006791      0.00      1.67      1.93
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   SRCPARAM L0048871     0.00000006791      0.00      1.67      1.93
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   SRCPARAM L0048875     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048876     0.00000006791      0.00      1.67      1.93
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   SRCPARAM L0048878     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048879     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048880     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048881     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048882     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048883     0.00000006791      0.00      1.67      1.93
   SRCPARAM L0048884     0.00000006791      0.00      1.67      1.93
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SRCPARAM L0048885     0.00000006791      0.00      1.67      1.93
SRCPARAM L0048886     0.00000006791      0.00      1.67      1.93
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SRCPARAM L0048893     0.00000006791      0.00      1.67      1.93
SRCPARAM L0048894     0.00000006791      0.00      1.67      1.93
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SRCPARAM L0048898     0.00000006791      0.00      1.67      1.93
SRCPARAM L0048899     0.00000006791      0.00      1.67      1.93
SRCPARAM L0048900     0.00000006791      0.00      1.67      1.93
SRCPARAM L0048901     0.00000006791      0.00      1.67      1.93
SRCPARAM L0048902     0.00000006791      0.00      1.67      1.93
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SRCPARAM L0048905     0.00000006791      0.00      1.67      1.93
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   SRCPARAM L0006740     0.00000003659      0.00      1.67      1.93
   SRCPARAM L0006741     0.00000003659      0.00      1.67      1.93
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** LINE VOLUME Source ID = TRUCK_IDLE
   SRCPARAM L0006759     0.0009076923      0.00      1.67      1.93
   SRCPARAM L0006760     0.0009076923      0.00      1.67      1.93
   SRCPARAM L0006761     0.0009076923      0.00      1.67      1.93
   SRCPARAM L0006762     0.0009076923      0.00      1.67      1.93
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   SRCPARAM L0006764     0.0009076923      0.00      1.67      1.93
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   SRCPARAM L0006766     0.0009076923      0.00      1.67      1.93
   SRCPARAM L0006767     0.0009076923      0.00      1.67      1.93
   SRCPARAM L0006768     0.0009076923      0.00      1.67      1.93
   SRCPARAM L0006769     0.0009076923      0.00      1.67      1.93
   SRCPARAM L0006770     0.0009076923      0.00      1.67      1.93
   SRCPARAM L0006771     0.0009076923      0.00      1.67      1.93
** ------------------------------------------------------------------
   SRCPARAM GS_TRUCK     1.1779E-09     4.150    48.310    56.410     0.000
** LINE VOLUME Source ID = NB2_TRUCK
   SRCPARAM L0049490     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049491     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049492     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049493     0.0000007444      0.00      1.67      1.93
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   SRCPARAM L0049494     0.0000007444      0.00      1.67      1.93
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   SRCPARAM L0049497     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049498     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049499     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049500     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049501     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049502     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049503     0.0000007444      0.00      1.67      1.93
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   SRCPARAM L0049506     0.0000007444      0.00      1.67      1.93
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   SRCPARAM L0049511     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049512     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049513     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049514     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049515     0.0000007444      0.00      1.67      1.93
   SRCPARAM L0049516     0.0000007444      0.00      1.67      1.93
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** LINE VOLUME Source ID = SB2_TRUCK
   SRCPARAM L0049517     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049518     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049519     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049520     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049521     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049522     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049523     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049524     0.0000004102      0.00      1.67      1.93
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   SRCPARAM L0049539     0.0000004102      0.00      1.67      1.93
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   SRCPARAM L0049563     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049564     0.0000004102      0.00      1.67      1.93
   SRCPARAM L0049565     0.0000004102      0.00      1.67      1.93
** ------------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED NorthgateVallejo_HRA_PM10.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE NapaCountyAirport_MetData\724955.SFC
   PROFFILE NapaCountyAirport_MetData\724955.PFL
```

```
   SURFDATA 93227 2009 Napa_County_Airport
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 4.3 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST NORTHGATEVALLEJO_HRA_PM10.AD\01H1GALL.PLT 31
   PLOTFILE 24 ALL 1ST NORTHGATEVALLEJO_HRA_PM10.AD\24H1GALL.PLT 32
   PLOTFILE ANNUAL ALL NORTHGATEVALLEJO_HRA_PM10.AD\AN00GALL.PLT 33
   SUMMFILE NorthgateVallejo_HRA_PM10.sum
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                             ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   922 Source(s),
```

  for Total of   1 Urban Area(s):
  Urban Population =   445458.0 ; Urban Roughness Length = 1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of: PM_10

 **Model Calculates 2 Short Term Average(s) of: 1-HR 24-HR
    and Calculates ANNUAL Averages

 **This Run Includes: 922 Source(s);   1 Source Group(s); and   604
Receptor(s)

               with: 0 POINT(s), including
                          0 POINTCAP(s) and   0 POINTHOR(s)
                and: 921 VOLUME source(s)
                and: 1 AREA type source(s)
                and: 0 LINE source(s)
                and: 0 OPENPIT source(s)
                and: 0 BUOYANT LINE source(s) with   0 line(s)

 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date: 14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours

m for Missing Hours
b for Both Calm and
Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 4.30 ; Decay
Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 4.1 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: NorthgateVallejo_HRA_PM10.err

**File for Summary of Results: NorthgateVallejo_HRA_PM10.sum

*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0048843	0	0.67910E-07	567486.9	4219553.5	37.4	0.00	1.67	1.93	YES	
L0048844	0	0.67910E-07	567487.6	4219557.0	37.6	0.00	1.67	1.93	YES	
L0048845	0	0.67910E-07	567488.2	4219560.6	37.9	0.00	1.67	1.93	YES	

L0048846	0	0.67910E-07	567488.9	4219564.1	38.2	0.00	1.67
1.93	YES						
L0048847	0	0.67910E-07	567489.5	4219567.7	38.6	0.00	1.67
1.93	YES						
L0048848	0	0.67910E-07	567490.2	4219571.2	38.9	0.00	1.67
1.93	YES						
L0048849	0	0.67910E-07	567490.8	4219574.7	39.2	0.00	1.67
1.93	YES						
L0048850	0	0.67910E-07	567491.5	4219578.3	39.5	0.00	1.67
1.93	YES						
L0048851	0	0.67910E-07	567492.1	4219581.8	39.7	0.00	1.67
1.93	YES						
L0048852	0	0.67910E-07	567492.7	4219585.4	39.9	0.00	1.67
1.93	YES						
L0048853	0	0.67910E-07	567493.4	4219588.9	40.2	0.00	1.67
1.93	YES						
L0048854	0	0.67910E-07	567494.0	4219592.4	40.3	0.00	1.67
1.93	YES						
L0048855	0	0.67910E-07	567494.7	4219596.0	40.4	0.00	1.67
1.93	YES						
L0048856	0	0.67910E-07	567495.3	4219599.5	40.6	0.00	1.67
1.93	YES						
L0048857	0	0.67910E-07	567496.0	4219603.1	40.7	0.00	1.67
1.93	YES						
L0048858	0	0.67910E-07	567496.6	4219606.6	40.9	0.00	1.67
1.93	YES						
L0048859	0	0.67910E-07	567497.3	4219610.1	41.0	0.00	1.67
1.93	YES						
L0048860	0	0.67910E-07	567497.9	4219613.7	41.0	0.00	1.67
1.93	YES						
L0048861	0	0.67910E-07	567498.6	4219617.2	41.0	0.00	1.67
1.93	YES						
L0048862	0	0.67910E-07	567499.2	4219620.8	41.0	0.00	1.67
1.93	YES						
L0048863	0	0.67910E-07	567499.9	4219624.3	41.1	0.00	1.67
1.93	YES						
L0048864	0	0.67910E-07	567500.5	4219627.9	41.1	0.00	1.67
1.93	YES						
L0048865	0	0.67910E-07	567501.1	4219631.4	41.2	0.00	1.67
1.93	YES						
L0048866	0	0.67910E-07	567501.8	4219634.9	41.2	0.00	1.67
1.93	YES						
L0048867	0	0.67910E-07	567502.4	4219638.5	41.3	0.00	1.67
1.93	YES						
L0048868	0	0.67910E-07	567503.1	4219642.0	41.3	0.00	1.67
1.93	YES						
L0048869	0	0.67910E-07	567503.7	4219645.6	41.3	0.00	1.67
1.93	YES						

```
 L0048870         0   0.67910E-07  567504.4 4219649.1    41.3     0.00     1.67
1.93     YES
 L0048871         0   0.67910E-07  567505.0 4219652.7    41.3     0.00     1.67
1.93     YES
 L0048872         0   0.67910E-07  567505.6 4219656.2    41.3     0.00     1.67
1.93     YES
 L0048873         0   0.67910E-07  567506.2 4219659.8    41.3     0.00     1.67
1.93     YES
 L0048874         0   0.67910E-07  567506.8 4219663.3    41.3     0.00     1.67
1.93     YES
 L0048875         0   0.67910E-07  567507.4 4219666.9    41.3     0.00     1.67
1.93     YES
 L0048876         0   0.67910E-07  567508.0 4219670.4    41.3     0.00     1.67
1.93     YES
 L0048877         0   0.67910E-07  567508.6 4219674.0    41.3     0.00     1.67
1.93     YES
 L0048878         0   0.67910E-07  567509.2 4219677.5    41.3     0.00     1.67
1.93     YES
 L0048879         0   0.67910E-07  567509.8 4219681.1    41.2     0.00     1.67
1.93     YES
 L0048880         0   0.67910E-07  567511.2 4219684.2    41.3     0.00     1.67
1.93     YES
 L0048881         0   0.67910E-07  567513.4 4219687.1    41.4     0.00     1.67
1.93     YES
 L0048882         0   0.67910E-07  567515.7 4219689.9    41.5     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0048883         0   0.67910E-07  567517.9 4219692.7    41.6     0.00     1.67
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1.93     YES
 L0048884         0   0.67910E-07  567520.6 4219695.1    41.8     0.00     1.67
1.93     YES
 L0048885         0   0.67910E-07  567523.3 4219697.4    41.9     0.00     1.67
1.93     YES
 L0048886         0   0.67910E-07  567526.1 4219699.7    42.1     0.00     1.67
1.93     YES
 L0048887         0   0.67910E-07  567528.9 4219702.0    42.2     0.00     1.67
1.93     YES
 L0048888         0   0.67910E-07  567531.7 4219704.3    42.3     0.00     1.67
1.93     YES
 L0048889         0   0.67910E-07  567534.5 4219706.6    42.4     0.00     1.67
1.93     YES
 L0048890         0   0.67910E-07  567537.6 4219708.2    42.4     0.00     1.67
1.93     YES
 L0048891         0   0.67910E-07  567540.9 4219709.6    42.5     0.00     1.67
1.93     YES
 L0048892         0   0.67910E-07  567544.3 4219711.0    42.5     0.00     1.67
1.93     YES
 L0048893         0   0.67910E-07  567547.6 4219712.4    42.4     0.00     1.67
1.93     YES
 L0048894         0   0.67910E-07  567550.9 4219713.7    42.1     0.00     1.67
1.93     YES
 L0048895         0   0.67910E-07  567554.3 4219715.0    41.8     0.00     1.67
1.93     YES
 L0048896         0   0.67910E-07  567557.7 4219716.2    41.5     0.00     1.67
1.93     YES
 L0048897         0   0.67910E-07  567561.1 4219717.4    41.2     0.00     1.67
1.93     YES
 L0048898         0   0.67910E-07  567564.5 4219718.6    40.9     0.00     1.67
1.93     YES
 L0048899         0   0.67910E-07  567567.9 4219719.8    40.7     0.00     1.67
1.93     YES
 L0048900         0   0.67910E-07  567571.3 4219721.0    40.5     0.00     1.67
1.93     YES
 L0048901         0   0.67910E-07  567574.7 4219722.2    40.3     0.00     1.67
1.93     YES
 L0048902         0   0.67910E-07  567578.1 4219723.4    40.1     0.00     1.67
1.93     YES
 L0048903         0   0.67910E-07  567581.4 4219724.5    39.9     0.00     1.67
1.93     YES
 L0048904         0   0.67910E-07  567584.8 4219725.7    39.8     0.00     1.67
1.93     YES
 L0048905         0   0.67910E-07  567588.2 4219726.9    39.6     0.00     1.67
1.93     YES
 L0048906         0   0.67910E-07  567591.6 4219728.1    39.5     0.00     1.67
1.93     YES
 L0048907         0   0.67910E-07  567595.0 4219729.3    39.4     0.00     1.67
```

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1.93     YES
 L0048908         0   0.67910E-07  567598.4 4219730.5    39.3     0.00     1.67
1.93     YES
 L0048909         0   0.67910E-07  567601.8 4219731.7    39.2     0.00     1.67
1.93     YES
 L0048910         0   0.67910E-07  567605.2 4219732.9    39.1     0.00     1.67
1.93     YES
 L0048911         0   0.67910E-07  567608.6 4219734.1    39.0     0.00     1.67
1.93     YES
 L0048912         0   0.67910E-07  567612.0 4219735.3    38.7     0.00     1.67
1.93     YES
 L0048913         0   0.67910E-07  567615.4 4219736.5    38.4     0.00     1.67
1.93     YES
 L0048914         0   0.67910E-07  567618.8 4219737.6    38.1     0.00     1.67
1.93     YES
 L0048915         0   0.67910E-07  567622.2 4219738.8    37.8     0.00     1.67
1.93     YES
 L0048916         0   0.67910E-07  567625.6 4219740.0    37.5     0.00     1.67
1.93     YES
 L0048917         0   0.67910E-07  567628.8 4219741.8    37.3     0.00     1.67
1.93     YES
 L0048918         0   0.67910E-07  567631.9 4219743.5    37.1     0.00     1.67
1.93     YES
 L0048919         0   0.67910E-07  567635.1 4219745.2    37.0     0.00     1.67
1.93     YES
 L0048920         0   0.67910E-07  567638.2 4219746.9    36.9     0.00     1.67
1.93     YES
 L0048921         0   0.67910E-07  567641.4 4219748.7    36.8     0.00     1.67
1.93     YES
 L0048922         0   0.67910E-07  567644.6 4219750.4    36.8     0.00     1.67
1.93     YES
```


*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR VARY

L0048923	0	0.67910E-07	567647.7	4219752.1	36.7	0.00	1.67	1.93 YES
L0048924	0	0.67910E-07	567650.9	4219753.9	36.6	0.00	1.67	1.93 YES
L0048925	0	0.67910E-07	567654.0	4219755.7	36.5	0.00	1.67	1.93 YES
L0048926	0	0.67910E-07	567657.0	4219757.6	36.5	0.00	1.67	1.93 YES
L0048927	0	0.67910E-07	567660.1	4219759.4	36.4	0.00	1.67	1.93 YES
L0048928	0	0.67910E-07	567663.2	4219761.3	36.4	0.00	1.67	1.93 YES
L0048929	0	0.67910E-07	567665.7	4219763.9	36.3	0.00	1.67	1.93 YES
L0048930	0	0.67910E-07	567668.2	4219766.5	36.2	0.00	1.67	1.93 YES
L0048931	0	0.67910E-07	567670.6	4219769.1	36.1	0.00	1.67	1.93 YES
L0048932	0	0.67910E-07	567673.1	4219771.8	35.9	0.00	1.67	1.93 YES
L0048933	0	0.67910E-07	567674.2	4219775.1	35.8	0.00	1.67	1.93 YES
L0048934	0	0.67910E-07	567675.1	4219778.6	35.9	0.00	1.67	1.93 YES
L0048935	0	0.67910E-07	567675.9	4219782.1	36.1	0.00	1.67	1.93 YES
L0048936	0	0.67910E-07	567676.8	4219785.6	36.2	0.00	1.67	1.93 YES
L0048937	0	0.67910E-07	567676.4	4219789.2	36.2	0.00	1.67	1.93 YES
L0048938	0	0.67910E-07	567675.9	4219792.8	36.2	0.00	1.67	1.93 YES
L0048939	0	0.67910E-07	567675.5	4219796.3	36.2	0.00	1.67	1.93 YES
L0048940	0	0.67910E-07	567675.1	4219799.9	36.1	0.00	1.67	1.93 YES
L0048941	0	0.67910E-07	567674.6	4219803.5	36.0	0.00	1.67	1.93 YES
L0048942	0	0.67910E-07	567674.2	4219807.1	36.0	0.00	1.67	1.93 YES
L0048943	0	0.67910E-07	567673.8	4219810.6	35.8	0.00	1.67	1.93 YES
L0048944	0	0.67910E-07	567673.3	4219814.2	35.7	0.00	1.67	1.93 YES

```
 L0048945         0   0.67910E-07  567672.7 4219817.7    35.6     0.00     1.67
1.93     YES
 L0048946         0   0.67910E-07  567672.1 4219821.3    35.5     0.00     1.67
1.93     YES
 L0048947         0   0.67910E-07  567671.5 4219824.8    35.4     0.00     1.67
1.93     YES
 L0048948         0   0.67910E-07  567670.9 4219828.4    35.2     0.00     1.67
1.93     YES
 L0048949         0   0.67910E-07  567670.3 4219831.9    35.1     0.00     1.67
1.93     YES
 L0048950         0   0.67910E-07  567669.7 4219835.5    34.9     0.00     1.67
1.93     YES
 L0048951         0   0.67910E-07  567669.1 4219839.0    34.8     0.00     1.67
1.93     YES
 L0048952         0   0.67910E-07  567668.5 4219842.6    34.7     0.00     1.67
1.93     YES
 L0048953         0   0.67910E-07  567668.1 4219846.2    34.6     0.00     1.67
1.93     YES
 L0048954         0   0.67910E-07  567667.7 4219849.7    34.4     0.00     1.67
1.93     YES
 L0048955         0   0.67910E-07  567667.3 4219853.3    34.3     0.00     1.67
1.93     YES
 L0048956         0   0.67910E-07  567666.9 4219856.9    34.1     0.00     1.67
1.93     YES
 L0048957         0   0.67910E-07  567666.5 4219860.5    34.0     0.00     1.67
1.93     YES
 L0048958         0   0.67910E-07  567666.2 4219864.1    33.8     0.00     1.67
1.93     YES
 L0048959         0   0.67910E-07  567665.8 4219867.6    33.7     0.00     1.67
1.93     YES
 L0048960         0   0.67910E-07  567665.4 4219871.2    33.6     0.00     1.67
1.93     YES
 L0048961         0   0.67910E-07  567665.0 4219874.8    33.4     0.00     1.67
1.93     YES
 L0048962         0   0.67910E-07  567664.6 4219878.4    33.3     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***
```

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	URBAN SOURCE IN SZ	INIT. EMISSION RATE SCALAR VARY BY
L0048963	0	0.67910E-07	567664.3	4219882.0	33.1	0.00	1.67	YES	1.93
L0048964	0	0.67910E-07	567663.9	4219885.5	33.0	0.00	1.67	YES	1.93
L0048965	0	0.67910E-07	567663.5	4219889.1	32.9	0.00	1.67	YES	1.93
L0048966	0	0.67910E-07	567663.1	4219892.7	32.8	0.00	1.67	YES	1.93
L0048967	0	0.67910E-07	567662.7	4219896.3	32.7	0.00	1.67	YES	1.93
L0048968	0	0.67910E-07	567662.4	4219899.9	32.6	0.00	1.67	YES	1.93
L0048969	0	0.67910E-07	567662.0	4219903.4	32.5	0.00	1.67	YES	1.93
L0048970	0	0.67910E-07	567661.6	4219907.0	32.4	0.00	1.67	YES	1.93
L0048971	0	0.67910E-07	567661.2	4219910.6	32.3	0.00	1.67	YES	1.93
L0048972	0	0.67910E-07	567660.8	4219914.2	32.2	0.00	1.67	YES	1.93
L0048973	0	0.67910E-07	567660.5	4219917.8	32.1	0.00	1.67	YES	1.93
L0048974	0	0.67910E-07	567660.1	4219921.3	32.0	0.00	1.67	YES	1.93
L0048975	0	0.67910E-07	567659.7	4219924.9	31.9	0.00	1.67	YES	1.93
L0048976	0	0.67910E-07	567659.3	4219928.5	31.8	0.00	1.67	YES	1.93
L0048977	0	0.67910E-07	567659.0	4219932.1	31.7	0.00	1.67	YES	1.93
L0048978	0	0.67910E-07	567658.6	4219935.7	31.6	0.00	1.67	YES	1.93
L0048979	0	0.67910E-07	567658.2	4219939.2	31.5	0.00	1.67	YES	1.93
L0048980	0	0.67910E-07	567657.8	4219942.8	31.4	0.00	1.67	YES	1.93
L0048981	0	0.67910E-07	567657.4	4219946.4	31.2	0.00	1.67	YES	1.93
L0048982	0	0.67910E-07	567657.1	4219950.0	31.1	0.00	1.67		

```
1.93     YES
 L0048983         0   0.67910E-07  567656.7 4219953.6    31.1     0.00     1.67
1.93     YES
 L0048984         0   0.67910E-07  567656.3 4219957.1    31.0     0.00     1.67
1.93     YES
 L0048985         0   0.67910E-07  567655.9 4219960.7    30.9     0.00     1.67
1.93     YES
 L0048986         0   0.67910E-07  567655.5 4219964.3    30.9     0.00     1.67
1.93     YES
 L0048987         0   0.67910E-07  567655.2 4219967.9    30.8     0.00     1.67
1.93     YES
 L0048988         0   0.67910E-07  567654.8 4219971.5    30.8     0.00     1.67
1.93     YES
 L0048989         0   0.67910E-07  567654.4 4219975.0    30.7     0.00     1.67
1.93     YES
 L0048990         0   0.67910E-07  567654.0 4219978.6    30.7     0.00     1.67
1.93     YES
 L0048991         0   0.67910E-07  567653.6 4219982.2    30.6     0.00     1.67
1.93     YES
 L0048992         0   0.67910E-07  567653.4 4219985.8    30.7     0.00     1.67
1.93     YES
 L0048993         0   0.67910E-07  567653.7 4219989.4    30.7     0.00     1.67
1.93     YES
 L0048994         0   0.67910E-07  567654.0 4219993.0    30.7     0.00     1.67
1.93     YES
 L0048995         0   0.67910E-07  567654.3 4219996.5    30.7     0.00     1.67
1.93     YES
 L0048996         0   0.67910E-07  567654.6 4220000.1    30.8     0.00     1.67
1.93     YES
 L0048997         0   0.67910E-07  567654.9 4220003.7    30.8     0.00     1.67
1.93     YES
 L0048998         0   0.67910E-07  567655.2 4220007.3    30.9     0.00     1.67
1.93     YES
 L0048999         0   0.67910E-07  567655.5 4220010.9    30.9     0.00     1.67
1.93     YES
 L0049000         0   0.67910E-07  567655.8 4220014.5    31.0     0.00     1.67
1.93     YES
 L0049001         0   0.67910E-07  567656.1 4220018.1    31.0     0.00     1.67
1.93     YES
 L0049002         0   0.67910E-07  567656.4 4220021.7    31.0     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE VARY BY
L0049003	0	0.67910E-07	567656.7	4220025.2	31.0	0.00	1.67	1.93	YES	
L0049004	0	0.67910E-07	567657.0	4220028.8	31.0	0.00	1.67	1.93	YES	
L0049005	0	0.67910E-07	567657.3	4220032.4	31.1	0.00	1.67	1.93	YES	
L0049006	0	0.67910E-07	567657.6	4220036.0	31.1	0.00	1.67	1.93	YES	
L0049007	0	0.67910E-07	567658.2	4220039.5	31.1	0.00	1.67	1.93	YES	
L0049008	0	0.67910E-07	567659.1	4220043.0	31.1	0.00	1.67	1.93	YES	
L0049009	0	0.67910E-07	567660.1	4220046.5	31.1	0.00	1.67	1.93	YES	
L0049010	0	0.67910E-07	567661.1	4220049.9	31.1	0.00	1.67	1.93	YES	
L0049011	0	0.67910E-07	567662.2	4220053.4	31.1	0.00	1.67	1.93	YES	
L0049012	0	0.67910E-07	567663.6	4220056.7	31.1	0.00	1.67	1.93	YES	
L0049013	0	0.67910E-07	567664.9	4220060.1	31.1	0.00	1.67	1.93	YES	
L0049014	0	0.67910E-07	567666.2	4220063.4	31.1	0.00	1.67	1.93	YES	
L0049015	0	0.67910E-07	567667.5	4220066.7	31.1	0.00	1.67	1.93	YES	
L0049016	0	0.67910E-07	567668.8	4220070.1	31.2	0.00	1.67	1.93	YES	
L0049017	0	0.67910E-07	567670.2	4220073.4	31.2	0.00	1.67	1.93	YES	
L0049018	0	0.67910E-07	567671.5	4220076.8	31.2	0.00	1.67	1.93	YES	
L0049019	0	0.67910E-07	567672.8	4220080.1	31.1	0.00	1.67	1.93	YES	

```
 L0049020         0   0.67910E-07  567674.1 4220083.5    31.1     0.00     1.67
1.93     YES
 L0049021         0   0.67910E-07  567675.5 4220086.8    31.1     0.00     1.67
1.93     YES
 L0049022         0   0.67910E-07  567676.8 4220090.2    31.0     0.00     1.67
1.93     YES
 L0049023         0   0.67910E-07  567678.1 4220093.5    31.0     0.00     1.67
1.93     YES
 L0049024         0   0.67910E-07  567679.4 4220096.9    31.0     0.00     1.67
1.93     YES
 L0049025         0   0.67910E-07  567680.8 4220100.2    30.9     0.00     1.67
1.93     YES
 L0049026         0   0.67910E-07  567682.1 4220103.6    30.9     0.00     1.67
1.93     YES
 L0049027         0   0.67910E-07  567683.4 4220106.9    30.9     0.00     1.67
1.93     YES
 L0049028         0   0.67910E-07  567684.7 4220110.3    30.9     0.00     1.67
1.93     YES
 L0049029         0   0.67910E-07  567686.0 4220113.6    30.9     0.00     1.67
1.93     YES
 L0049030         0   0.67910E-07  567687.4 4220117.0    30.9     0.00     1.67
1.93     YES
 L0049031         0   0.67910E-07  567688.7 4220120.3    30.9     0.00     1.67
1.93     YES
 L0049032         0   0.67910E-07  567690.0 4220123.7    30.9     0.00     1.67
1.93     YES
 L0049033         0   0.67910E-07  567691.3 4220127.0    30.8     0.00     1.67
1.93     YES
 L0049034         0   0.67910E-07  567692.7 4220130.4    30.8     0.00     1.67
1.93     YES
 L0049035         0   0.67910E-07  567694.0 4220133.7    30.8     0.00     1.67
1.93     YES
 L0049036         0   0.67910E-07  567695.3 4220137.1    30.8     0.00     1.67
1.93     YES
 L0049037         0   0.67910E-07  567696.6 4220140.4    30.8     0.00     1.67
1.93     YES
 L0049038         0   0.67910E-07  567698.0 4220143.8    30.8     0.00     1.67
1.93     YES
 L0049039         0   0.67910E-07  567699.3 4220147.1    30.7     0.00     1.67
1.93     YES
 L0049040         0   0.67910E-07  567700.6 4220150.4    30.7     0.00     1.67
1.93     YES
 L0049041         0   0.67910E-07  567701.9 4220153.8    30.7     0.00     1.67
1.93     YES
 L0049042         0   0.67910E-07  567703.3 4220157.1    30.7     0.00     1.67
1.93     YES
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE VARY BY
L0049043	0	0.67910E-07	567704.6	4220160.5	30.7	0.00	1.67	1.93	YES	
L0049044	0	0.67910E-07	567705.9	4220163.8	30.7	0.00	1.67	1.93	YES	
L0049045	0	0.67910E-07	567707.2	4220167.2	30.7	0.00	1.67	1.93	YES	
L0049046	0	0.67910E-07	567708.5	4220170.5	30.6	0.00	1.67	1.93	YES	
L0049047	0	0.67910E-07	567710.0	4220173.8	30.5	0.00	1.67	1.93	YES	
L0049048	0	0.67910E-07	567711.6	4220177.1	30.4	0.00	1.67	1.93	YES	
L0049049	0	0.67910E-07	567713.2	4220180.3	30.4	0.00	1.67	1.93	YES	
L0049050	0	0.67910E-07	567714.8	4220183.5	30.5	0.00	1.67	1.93	YES	
L0049051	0	0.67910E-07	567716.3	4220186.7	30.5	0.00	1.67	1.93	YES	
L0049052	0	0.67910E-07	567717.9	4220190.0	30.5	0.00	1.67	1.93	YES	
L0049053	0	0.67910E-07	567719.5	4220193.2	30.6	0.00	1.67	1.93	YES	
L0049054	0	0.67910E-07	567721.1	4220196.4	30.6	0.00	1.67	1.93	YES	
L0049055	0	0.67910E-07	567722.7	4220199.7	30.7	0.00	1.67	1.93	YES	
L0049056	0	0.67910E-07	567724.3	4220202.9	30.8	0.00	1.67	1.93	YES	
L0049057	0	0.67910E-07	567725.9	4220206.1	30.8	0.00	1.67			

```
1.93     YES
 L0049058         0   0.67910E-07  567727.5 4220209.3    30.9     0.00     1.67
1.93     YES
 L0049059         0   0.67910E-07  567729.1 4220212.6    31.0     0.00     1.67
1.93     YES
 L0049060         0   0.67910E-07  567730.7 4220215.8    31.1     0.00     1.67
1.93     YES
 L0049061         0   0.67910E-07  567732.3 4220219.0    31.1     0.00     1.67
1.93     YES
 L0049062         0   0.67910E-07  567733.9 4220222.3    31.2     0.00     1.67
1.93     YES
 L0049063         0   0.67910E-07  567735.5 4220225.5    31.2     0.00     1.67
1.93     YES
 L0049064         0   0.67910E-07  567737.1 4220228.7    31.3     0.00     1.67
1.93     YES
 L0049065         0   0.67910E-07  567738.7 4220231.9    31.3     0.00     1.67
1.93     YES
 L0049066         0   0.67910E-07  567740.2 4220235.2    31.4     0.00     1.67
1.93     YES
 L0049067         0   0.67910E-07  567741.8 4220238.4    31.4     0.00     1.67
1.93     YES
 L0049068         0   0.67910E-07  567743.4 4220241.6    31.4     0.00     1.67
1.93     YES
 L0049069         0   0.67910E-07  567745.0 4220244.9    31.3     0.00     1.67
1.93     YES
 L0049070         0   0.67910E-07  567746.6 4220248.1    31.3     0.00     1.67
1.93     YES
 L0049071         0   0.67910E-07  567748.2 4220251.3    31.3     0.00     1.67
1.93     YES
 L0049072         0   0.67910E-07  567749.8 4220254.5    31.2     0.00     1.67
1.93     YES
 L0049073         0   0.67910E-07  567751.4 4220257.8    31.2     0.00     1.67
1.93     YES
 L0049074         0   0.67910E-07  567753.0 4220261.0    31.2     0.00     1.67
1.93     YES
 L0049075         0   0.67910E-07  567754.6 4220264.2    31.1     0.00     1.67
1.93     YES
 L0049076         0   0.67910E-07  567756.2 4220267.5    31.1     0.00     1.67
1.93     YES
 L0049077         0   0.67910E-07  567757.8 4220270.7    31.1     0.00     1.67
1.93     YES
 L0049078         0   0.67910E-07  567759.4 4220273.9    31.1     0.00     1.67
1.93     YES
 L0049079         0   0.67910E-07  567761.0 4220277.1    31.1     0.00     1.67
1.93     YES
 L0049080         0   0.67910E-07  567762.5 4220280.4    31.1     0.00     1.67
1.93     YES
 L0049081         0   0.67910E-07  567764.1 4220283.6    31.1     0.00     1.67
```

1.93 YES
L0049082 0 0.67910E-07 567765.7 4220286.8 31.1 0.00 1.67
1.93 YES
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE SCALAR VARY
L0049083	0	0.67910E-07	567767.3	4220290.1	31.2	0.00	1.67	1.93	YES	
L0049084	0	0.67910E-07	567768.9	4220293.3	31.2	0.00	1.67	1.93	YES	
L0049085	0	0.67910E-07	567770.5	4220296.5	31.3	0.00	1.67	1.93	YES	
L0049086	0	0.67910E-07	567772.1	4220299.7	31.4	0.00	1.67	1.93	YES	
L0049087	0	0.67910E-07	567773.7	4220303.0	31.5	0.00	1.67	1.93	YES	
L0049088	0	0.67910E-07	567775.3	4220306.2	31.6	0.00	1.67	1.93	YES	
L0049089	0	0.67910E-07	567776.9	4220309.4	31.7	0.00	1.67	1.93	YES	
L0049090	0	0.67910E-07	567778.5	4220312.7	31.7	0.00	1.67	1.93	YES	
L0049091	0	0.67910E-07	567780.1	4220315.9	31.8	0.00	1.67	1.93	YES	
L0049092	0	0.67910E-07	567781.7	4220319.1	31.9	0.00	1.67	1.93	YES	
L0049093	0	0.67910E-07	567783.3	4220322.3	31.9	0.00	1.67	1.93	YES	
L0049094	0	0.67910E-07	567784.9	4220325.6	31.9	0.00	1.67	1.93	YES	

L0049095	0	0.67910E-07	567786.4	4220328.8	31.8	0.00	1.67
1.93	YES						
L0049096	0	0.67910E-07	567788.0	4220332.0	31.7	0.00	1.67
1.93	YES						
L0049097	0	0.67910E-07	567789.6	4220335.2	31.6	0.00	1.67
1.93	YES						
L0049098	0	0.67910E-07	567791.2	4220338.5	31.5	0.00	1.67
1.93	YES						
L0049099	0	0.67910E-07	567792.8	4220341.7	31.5	0.00	1.67
1.93	YES						
L0049100	0	0.67910E-07	567794.4	4220344.9	31.7	0.00	1.67
1.93	YES						
L0049101	0	0.67910E-07	567796.0	4220348.2	31.9	0.00	1.67
1.93	YES						
L0049102	0	0.67910E-07	567797.6	4220351.4	32.1	0.00	1.67
1.93	YES						
L0049103	0	0.67910E-07	567799.2	4220354.6	32.3	0.00	1.67
1.93	YES						
L0049104	0	0.67910E-07	567800.8	4220357.8	32.7	0.00	1.67
1.93	YES						
L0049105	0	0.67910E-07	567802.4	4220361.1	33.0	0.00	1.67
1.93	YES						
L0049106	0	0.67910E-07	567804.0	4220364.3	33.3	0.00	1.67
1.93	YES						
L0049107	0	0.67910E-07	567805.6	4220367.5	33.5	0.00	1.67
1.93	YES						
L0049108	0	0.67910E-07	567807.2	4220370.8	33.8	0.00	1.67
1.93	YES						
L0049109	0	0.67910E-07	567808.7	4220374.0	34.0	0.00	1.67
1.93	YES						
L0049110	0	0.67910E-07	567810.3	4220377.2	34.2	0.00	1.67
1.93	YES						
L0049111	0	0.67910E-07	567811.9	4220380.4	34.5	0.00	1.67
1.93	YES						
L0049112	0	0.67910E-07	567813.5	4220383.7	34.7	0.00	1.67
1.93	YES						
L0049113	0	0.67910E-07	567815.1	4220386.9	35.0	0.00	1.67
1.93	YES						
L0049114	0	0.67910E-07	567816.7	4220390.1	35.2	0.00	1.67
1.93	YES						
L0049115	0	0.67910E-07	567818.3	4220393.4	35.4	0.00	1.67
1.93	YES						
L0049116	0	0.67910E-07	567819.9	4220396.6	35.9	0.00	1.67
1.93	YES						
L0049117	0	0.67910E-07	567821.5	4220399.8	36.3	0.00	1.67
1.93	YES						
L0049118	0	0.67910E-07	567823.1	4220403.0	36.8	0.00	1.67
1.93	YES						

 L0049119   0   0.67910E-07 567824.7 4220406.3   37.4   0.00   1.67
1.93   YES
 L0049120   0   0.67910E-07 567826.3 4220409.5   37.9   0.00   1.67
1.93   YES
 L0049121   0   0.67910E-07 567827.9 4220412.7   38.5   0.00   1.67
1.93   YES
 L0049122   0   0.67910E-07 567829.5 4220416.0   38.9   0.00   1.67
1.93   YES

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
 -
- - - - - - - - - - - - - - - - - - - -

 L0049123   0   0.67910E-07 567831.1 4220419.2   39.3   0.00   1.67
1.93   YES
 L0049124   0   0.67910E-07 567832.6 4220422.4   39.5   0.00   1.67
1.93   YES
 L0049125   0   0.67910E-07 567834.2 4220425.6   39.6   0.00   1.67
1.93   YES
 L0049126   0   0.67910E-07 567835.8 4220428.9   39.6   0.00   1.67
1.93   YES
 L0049127   0   0.67910E-07 567837.4 4220432.1   39.8   0.00   1.67
1.93   YES
 L0049128   0   0.67910E-07 567839.0 4220435.3   39.9   0.00   1.67
1.93   YES
 L0049129   0   0.67910E-07 567840.6 4220438.6   39.8   0.00   1.67
1.93   YES
 L0049130   0   0.67910E-07 567842.2 4220441.8   39.8   0.00   1.67
1.93   YES
 L0049131   0   0.67910E-07 567843.8 4220445.0   39.9   0.00   1.67
1.93   YES
 L0049132   0   0.67910E-07 567845.4 4220448.2   40.0   0.00   1.67

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1.93     YES
 L0049133         0   0.67910E-07  567847.0 4220451.5    40.1     0.00     1.67
1.93     YES
 L0049134         0   0.67910E-07  567848.6 4220454.7    40.1     0.00     1.67
1.93     YES
 L0049135         0   0.67910E-07  567850.2 4220457.9    39.9     0.00     1.67
1.93     YES
 L0049136         0   0.67910E-07  567851.8 4220461.2    39.9     0.00     1.67
1.93     YES
 L0049137         0   0.67910E-07  567853.4 4220464.4    39.8     0.00     1.67
1.93     YES
 L0049138         0   0.67910E-07  567854.9 4220467.6    39.9     0.00     1.67
1.93     YES
 L0049139         0   0.61850E-07  567847.8 4220470.0    38.8     0.00     1.67
1.93     YES
 L0049140         0   0.61850E-07  567846.2 4220466.7    38.8     0.00     1.67
1.93     YES
 L0049141         0   0.61850E-07  567844.6 4220463.5    38.7     0.00     1.67
1.93     YES
 L0049142         0   0.61850E-07  567843.0 4220460.3    38.7     0.00     1.67
1.93     YES
 L0049143         0   0.61850E-07  567841.3 4220457.1    38.9     0.00     1.67
1.93     YES
 L0049144         0   0.61850E-07  567839.7 4220453.9    39.0     0.00     1.67
1.93     YES
 L0049145         0   0.61850E-07  567838.1 4220450.7    38.9     0.00     1.67
1.93     YES
 L0049146         0   0.61850E-07  567836.5 4220447.4    38.7     0.00     1.67
1.93     YES
 L0049147         0   0.61850E-07  567834.9 4220444.2    38.6     0.00     1.67
1.93     YES
 L0049148         0   0.61850E-07  567833.3 4220441.0    38.6     0.00     1.67
1.93     YES
 L0049149         0   0.61850E-07  567831.6 4220437.8    38.7     0.00     1.67
1.93     YES
 L0049150         0   0.61850E-07  567830.0 4220434.6    38.9     0.00     1.67
1.93     YES
 L0049151         0   0.61850E-07  567828.4 4220431.4    38.6     0.00     1.67
1.93     YES
 L0049152         0   0.61850E-07  567826.8 4220428.1    38.5     0.00     1.67
1.93     YES
 L0049153         0   0.61850E-07  567825.2 4220424.9    38.4     0.00     1.67
1.93     YES
 L0049154         0   0.61850E-07  567823.6 4220421.7    38.2     0.00     1.67
1.93     YES
 L0049155         0   0.61850E-07  567821.9 4220418.5    37.9     0.00     1.67
1.93     YES
 L0049156         0   0.61850E-07  567820.3 4220415.3    37.6     0.00     1.67
```

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1.93     YES
 L0049157         0   0.61850E-07  567818.7 4220412.1    37.1     0.00     1.67
1.93     YES
 L0049158         0   0.61850E-07  567817.1 4220408.8    36.4     0.00     1.67
1.93     YES
 L0049159         0   0.61850E-07  567815.5 4220405.6    35.7     0.00     1.67
1.93     YES
 L0049160         0   0.61850E-07  567813.8 4220402.4    35.1     0.00     1.67
1.93     YES
 L0049161         0   0.61850E-07  567812.2 4220399.2    34.6     0.00     1.67
1.93     YES
 L0049162         0   0.61850E-07  567810.6 4220396.0    34.1     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - - -

 L0049163         0   0.61850E-07  567809.0 4220392.8    33.8     0.00     1.67
1.93     YES
 L0049164         0   0.61850E-07  567807.4 4220389.5    33.6     0.00     1.67
1.93     YES
 L0049165         0   0.61850E-07  567805.8 4220386.3    33.4     0.00     1.67
1.93     YES
 L0049166         0   0.61850E-07  567804.1 4220383.1    33.2     0.00     1.67
1.93     YES
 L0049167         0   0.61850E-07  567802.5 4220379.9    33.1     0.00     1.67
1.93     YES
 L0049168         0   0.61850E-07  567800.9 4220376.7    32.9     0.00     1.67
1.93     YES
 L0049169         0   0.61850E-07  567799.3 4220373.5    32.8     0.00     1.67
1.93     YES
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L0049170	0	0.61850E-07	567797.7	4220370.2	32.6	0.00	1.67
1.93	YES						
L0049171	0	0.61850E-07	567796.1	4220367.0	32.4	0.00	1.67
1.93	YES						
L0049172	0	0.61850E-07	567794.4	4220363.8	32.2	0.00	1.67
1.93	YES						
L0049173	0	0.61850E-07	567792.8	4220360.6	31.9	0.00	1.67
1.93	YES						
L0049174	0	0.61850E-07	567791.2	4220357.4	31.6	0.00	1.67
1.93	YES						
L0049175	0	0.61850E-07	567789.6	4220354.2	31.4	0.00	1.67
1.93	YES						
L0049176	0	0.61850E-07	567788.0	4220351.0	31.2	0.00	1.67
1.93	YES						
L0049177	0	0.61850E-07	567786.4	4220347.7	31.2	0.00	1.67
1.93	YES						
L0049178	0	0.61850E-07	567784.7	4220344.5	31.2	0.00	1.67
1.93	YES						
L0049179	0	0.61850E-07	567783.1	4220341.3	31.1	0.00	1.67
1.93	YES						
L0049180	0	0.61850E-07	567781.5	4220338.1	31.2	0.00	1.67
1.93	YES						
L0049181	0	0.61850E-07	567779.9	4220334.9	31.3	0.00	1.67
1.93	YES						
L0049182	0	0.61850E-07	567778.3	4220331.7	31.3	0.00	1.67
1.93	YES						
L0049183	0	0.61850E-07	567776.7	4220328.4	31.4	0.00	1.67
1.93	YES						
L0049184	0	0.61850E-07	567775.0	4220325.2	31.4	0.00	1.67
1.93	YES						
L0049185	0	0.61850E-07	567773.4	4220322.0	31.4	0.00	1.67
1.93	YES						
L0049186	0	0.61850E-07	567771.8	4220318.8	31.3	0.00	1.67
1.93	YES						
L0049187	0	0.61850E-07	567770.2	4220315.6	31.3	0.00	1.67
1.93	YES						
L0049188	0	0.61850E-07	567768.6	4220312.4	31.2	0.00	1.67
1.93	YES						
L0049189	0	0.61850E-07	567767.0	4220309.1	31.2	0.00	1.67
1.93	YES						
L0049190	0	0.61850E-07	567765.3	4220305.9	31.1	0.00	1.67
1.93	YES						
L0049191	0	0.61850E-07	567763.7	4220302.7	31.1	0.00	1.67
1.93	YES						
L0049192	0	0.61850E-07	567762.1	4220299.5	31.1	0.00	1.67
1.93	YES						
L0049193	0	0.61850E-07	567760.5	4220296.3	31.0	0.00	1.67
1.93	YES						

 L0049194   0   0.61850E-07 567758.9 4220293.1   31.0   0.00   1.67
1.93   YES
 L0049195   0   0.61850E-07 567757.3 4220289.8   30.9   0.00   1.67
1.93   YES
 L0049196   0   0.61850E-07 567755.8 4220286.5   30.9   0.00   1.67
1.93   YES
 L0049197   0   0.61850E-07 567754.3 4220283.3   30.9   0.00   1.67
1.93   YES
 L0049198   0   0.61850E-07 567752.8 4220280.0   30.9   0.00   1.67
1.93   YES
 L0049199   0   0.61850E-07 567751.3 4220276.7   30.9   0.00   1.67
1.93   YES
 L0049200   0   0.61850E-07 567749.8 4220273.4   30.9   0.00   1.67
1.93   YES
 L0049201   0   0.61850E-07 567748.3 4220270.2   31.0   0.00   1.67
1.93   YES
 L0049202   0   0.61850E-07 567746.8 4220266.9   31.0   0.00   1.67
1.93   YES

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
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- - - - - - - - - - - - - - - - - - - -

 L0049203   0   0.61850E-07 567745.3 4220263.6   31.0   0.00   1.67
1.93   YES
 L0049204   0   0.61850E-07 567743.8 4220260.3   31.0   0.00   1.67
1.93   YES
 L0049205   0   0.61850E-07 567742.3 4220257.1   31.1   0.00   1.67
1.93   YES
 L0049206   0   0.61850E-07 567740.8 4220253.8   31.1   0.00   1.67
1.93   YES
 L0049207   0   0.61850E-07 567739.3 4220250.5   31.1   0.00   1.67

1.93 YES							
L0049208	0	0.61850E-07	567737.9	4220247.2	31.2	0.00	1.67
1.93 YES							
L0049209	0	0.61850E-07	567736.4	4220244.0	31.2	0.00	1.67
1.93 YES							
L0049210	0	0.61850E-07	567734.9	4220240.7	31.2	0.00	1.67
1.93 YES							
L0049211	0	0.61850E-07	567733.4	4220237.4	31.2	0.00	1.67
1.93 YES							
L0049212	0	0.61850E-07	567731.9	4220234.1	31.1	0.00	1.67
1.93 YES							
L0049213	0	0.61850E-07	567730.4	4220230.9	31.1	0.00	1.67
1.93 YES							
L0049214	0	0.61850E-07	567728.9	4220227.6	31.0	0.00	1.67
1.93 YES							
L0049215	0	0.61850E-07	567727.4	4220224.3	31.0	0.00	1.67
1.93 YES							
L0049216	0	0.61850E-07	567725.9	4220221.1	31.0	0.00	1.67
1.93 YES							
L0049217	0	0.61850E-07	567724.4	4220217.8	30.9	0.00	1.67
1.93 YES							
L0049218	0	0.61850E-07	567722.9	4220214.5	30.8	0.00	1.67
1.93 YES							
L0049219	0	0.61850E-07	567721.4	4220211.2	30.8	0.00	1.67
1.93 YES							
L0049220	0	0.61850E-07	567719.9	4220208.0	30.7	0.00	1.67
1.93 YES							
L0049221	0	0.61850E-07	567718.4	4220204.7	30.6	0.00	1.67
1.93 YES							
L0049222	0	0.61850E-07	567716.9	4220201.4	30.5	0.00	1.67
1.93 YES							
L0049223	0	0.61850E-07	567715.4	4220198.1	30.5	0.00	1.67
1.93 YES							
L0049224	0	0.61850E-07	567713.9	4220194.9	30.4	0.00	1.67
1.93 YES							
L0049225	0	0.61850E-07	567712.4	4220191.6	30.4	0.00	1.67
1.93 YES							
L0049226	0	0.61850E-07	567710.9	4220188.3	30.4	0.00	1.67
1.93 YES							
L0049227	0	0.61850E-07	567709.4	4220185.0	30.5	0.00	1.67
1.93 YES							
L0049228	0	0.61850E-07	567707.9	4220181.8	30.5	0.00	1.67
1.93 YES							
L0049229	0	0.61850E-07	567706.4	4220178.5	30.6	0.00	1.67
1.93 YES							
L0049230	0	0.61850E-07	567704.9	4220175.2	30.6	0.00	1.67
1.93 YES							
L0049231	0	0.61850E-07	567703.3	4220172.0	30.7	0.00	1.67

1.93 YES
L0049232 0 0.61850E-07 567701.7 4220168.8 30.8 0.00 1.67
1.93 YES
L0049233 0 0.61850E-07 567700.1 4220165.6 30.9 0.00 1.67
1.93 YES
L0049234 0 0.61850E-07 567698.5 4220162.4 30.9 0.00 1.67
1.93 YES
L0049235 0 0.61850E-07 567696.8 4220159.1 30.9 0.00 1.67
1.93 YES
L0049236 0 0.61850E-07 567695.2 4220155.9 30.9 0.00 1.67
1.93 YES
L0049237 0 0.61850E-07 567693.6 4220152.7 30.9 0.00 1.67
1.93 YES
L0049238 0 0.61850E-07 567692.0 4220149.5 30.9 0.00 1.67
1.93 YES
L0049239 0 0.61850E-07 567690.4 4220146.3 30.9 0.00 1.67
1.93 YES
L0049240 0 0.61850E-07 567688.8 4220143.0 31.0 0.00 1.67
1.93 YES
L0049241 0 0.61850E-07 567687.2 4220139.8 31.0 0.00 1.67
1.93 YES
L0049242 0 0.61850E-07 567685.6 4220136.6 31.0 0.00 1.67
1.93 YES
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 12
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE SCALAR VARY
L0049243	0	0.61850E-07	567683.9	4220133.4	31.0	0.00	1.67	1.93	YES	
L0049244	0	0.61850E-07	567682.3	4220130.2	31.0	0.00	1.67	1.93	YES	

L0049245	0	0.61850E-07	567680.7	4220126.9	31.1	0.00	1.67
1.93	YES						
L0049246	0	0.61850E-07	567679.1	4220123.7	31.1	0.00	1.67
1.93	YES						
L0049247	0	0.61850E-07	567677.5	4220120.5	31.1	0.00	1.67
1.93	YES						
L0049248	0	0.61850E-07	567675.9	4220117.3	31.1	0.00	1.67
1.93	YES						
L0049249	0	0.61850E-07	567674.3	4220114.1	31.2	0.00	1.67
1.93	YES						
L0049250	0	0.61850E-07	567672.7	4220110.9	31.2	0.00	1.67
1.93	YES						
L0049251	0	0.61850E-07	567671.0	4220107.6	31.2	0.00	1.67
1.93	YES						
L0049252	0	0.61850E-07	567669.4	4220104.4	31.2	0.00	1.67
1.93	YES						
L0049253	0	0.61850E-07	567667.8	4220101.2	31.2	0.00	1.67
1.93	YES						
L0049254	0	0.61850E-07	567666.2	4220098.0	31.3	0.00	1.67
1.93	YES						
L0049255	0	0.61850E-07	567664.9	4220094.6	31.3	0.00	1.67
1.93	YES						
L0049256	0	0.61850E-07	567663.6	4220091.3	31.3	0.00	1.67
1.93	YES						
L0049257	0	0.61850E-07	567662.3	4220087.9	31.3	0.00	1.67
1.93	YES						
L0049258	0	0.61850E-07	567661.0	4220084.6	31.4	0.00	1.67
1.93	YES						
L0049259	0	0.61850E-07	567659.7	4220081.2	31.4	0.00	1.67
1.93	YES						
L0049260	0	0.61850E-07	567658.4	4220077.9	31.4	0.00	1.67
1.93	YES						
L0049261	0	0.61850E-07	567657.0	4220074.5	31.4	0.00	1.67
1.93	YES						
L0049262	0	0.61850E-07	567655.7	4220071.2	31.4	0.00	1.67
1.93	YES						
L0049263	0	0.61850E-07	567654.4	4220067.8	31.4	0.00	1.67
1.93	YES						
L0049264	0	0.61850E-07	567653.1	4220064.5	31.4	0.00	1.67
1.93	YES						
L0049265	0	0.61850E-07	567652.1	4220061.0	31.4	0.00	1.67
1.93	YES						
L0049266	0	0.61850E-07	567651.5	4220057.5	31.4	0.00	1.67
1.93	YES						
L0049267	0	0.61850E-07	567650.8	4220053.9	31.4	0.00	1.67
1.93	YES						
L0049268	0	0.61850E-07	567650.2	4220050.4	31.4	0.00	1.67
1.93	YES						

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 L0049269         0   0.61850E-07  567649.5 4220046.8    31.4     0.00     1.67
1.93     YES
 L0049270         0   0.61850E-07  567648.8 4220043.3    31.4     0.00     1.67
1.93     YES
 L0049271         0   0.61850E-07  567648.2 4220039.8    31.4     0.00     1.67
1.93     YES
 L0049272         0   0.61850E-07  567647.5 4220036.2    31.4     0.00     1.67
1.93     YES
 L0049273         0   0.61850E-07  567647.0 4220032.7    31.4     0.00     1.67
1.93     YES
 L0049274         0   0.61850E-07  567646.6 4220029.1    31.3     0.00     1.67
1.93     YES
 L0049275         0   0.61850E-07  567646.2 4220025.5    31.3     0.00     1.67
1.93     YES
 L0049276         0   0.61850E-07  567645.8 4220021.9    31.2     0.00     1.67
1.93     YES
 L0049277         0   0.61850E-07  567645.4 4220018.3    31.2     0.00     1.67
1.93     YES
 L0049278         0   0.61850E-07  567645.0 4220014.8    31.2     0.00     1.67
1.93     YES
 L0049279         0   0.61850E-07  567644.6 4220011.2    31.2     0.00     1.67
1.93     YES
 L0049280         0   0.61850E-07  567644.2 4220007.6    31.1     0.00     1.67
1.93     YES
 L0049281         0   0.61850E-07  567644.0 4220004.0    31.1     0.00     1.67
1.93     YES
 L0049282         0   0.61850E-07  567644.2 4220000.4    31.0     0.00     1.67
1.93     YES
↑ *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***        14:46:01

                                 PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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 L0049283         0   0.61850E-07  567644.4 4219996.9    30.9     0.00     1.67
1.93     YES
 L0049284         0   0.61850E-07  567644.7 4219993.3    30.9     0.00     1.67
1.93     YES
 L0049285         0   0.61850E-07  567644.9 4219989.7    30.8     0.00     1.67
1.93     YES
 L0049286         0   0.61850E-07  567645.2 4219986.1    30.8     0.00     1.67
1.93     YES
 L0049287         0   0.61850E-07  567645.4 4219982.5    30.8     0.00     1.67
1.93     YES
 L0049288         0   0.61850E-07  567645.6 4219978.9    30.8     0.00     1.67
1.93     YES
 L0049289         0   0.61850E-07  567645.9 4219975.3    30.8     0.00     1.67
1.93     YES
 L0049290         0   0.61850E-07  567646.1 4219971.7    30.9     0.00     1.67
1.93     YES
 L0049291         0   0.61850E-07  567646.4 4219968.1    30.9     0.00     1.67
1.93     YES
 L0049292         0   0.61850E-07  567646.6 4219964.5    30.9     0.00     1.67
1.93     YES
 L0049293         0   0.61850E-07  567646.9 4219960.9    30.9     0.00     1.67
1.93     YES
 L0049294         0   0.61850E-07  567647.2 4219957.3    31.0     0.00     1.67
1.93     YES
 L0049295         0   0.61850E-07  567647.5 4219953.8    31.1     0.00     1.67
1.93     YES
 L0049296         0   0.61850E-07  567647.9 4219950.2    31.2     0.00     1.67
1.93     YES
 L0049297         0   0.61850E-07  567648.2 4219946.6    31.3     0.00     1.67
1.93     YES
 L0049298         0   0.61850E-07  567648.5 4219943.0    31.4     0.00     1.67
1.93     YES
 L0049299         0   0.61850E-07  567648.9 4219939.4    31.5     0.00     1.67
1.93     YES
 L0049300         0   0.61850E-07  567649.2 4219935.8    31.6     0.00     1.67
1.93     YES
 L0049301         0   0.61850E-07  567649.6 4219932.3    31.8     0.00     1.67
1.93     YES
 L0049302         0   0.61850E-07  567649.9 4219928.7    31.9     0.00     1.67
1.93     YES
 L0049303         0   0.61850E-07  567650.3 4219925.1    32.0     0.00     1.67
1.93     YES
 L0049304         0   0.61850E-07  567650.6 4219921.5    32.2     0.00     1.67
1.93     YES
 L0049305         0   0.61850E-07  567650.9 4219917.9    32.3     0.00     1.67
1.93     YES
 L0049306         0   0.61850E-07  567651.3 4219914.3    32.4     0.00     1.67
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1.93     YES
 L0049307         0   0.61850E-07  567651.6 4219910.8    32.5     0.00     1.67
1.93     YES
 L0049308         0   0.61850E-07  567652.0 4219907.2    32.6     0.00     1.67
1.93     YES
 L0049309         0   0.61850E-07  567652.3 4219903.6    32.7     0.00     1.67
1.93     YES
 L0049310         0   0.61850E-07  567652.7 4219900.0    32.7     0.00     1.67
1.93     YES
 L0049311         0   0.61850E-07  567653.0 4219896.4    32.8     0.00     1.67
1.93     YES
 L0049312         0   0.61850E-07  567653.3 4219892.8    33.0     0.00     1.67
1.93     YES
 L0049313         0   0.61850E-07  567653.7 4219889.3    33.1     0.00     1.67
1.93     YES
 L0049314         0   0.61850E-07  567654.0 4219885.7    33.2     0.00     1.67
1.93     YES
 L0049315         0   0.61850E-07  567654.3 4219882.1    33.3     0.00     1.67
1.93     YES
 L0049316         0   0.61850E-07  567654.6 4219878.5    33.4     0.00     1.67
1.93     YES
 L0049317         0   0.61850E-07  567655.0 4219874.9    33.5     0.00     1.67
1.93     YES
 L0049318         0   0.61850E-07  567655.3 4219871.3    33.7     0.00     1.67
1.93     YES
 L0049319         0   0.61850E-07  567655.6 4219867.7    33.8     0.00     1.67
1.93     YES
 L0049320         0   0.61850E-07  567655.9 4219864.2    33.9     0.00     1.67
1.93     YES
 L0049321         0   0.61850E-07  567656.3 4219860.6    34.1     0.00     1.67
1.93     YES
 L0049322         0   0.61850E-07  567656.6 4219857.0    34.2     0.00     1.67
1.93     YES
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
```

SZ	SOURCE ID	SCALAR CATS.	VARY BY	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	
	L0049323	0	0.61850E-07	567656.9	4219853.4	34.4	0.00	1.67	1.93	YES
	L0049324	0	0.61850E-07	567657.2	4219849.8	34.6	0.00	1.67	1.93	YES
	L0049325	0	0.61850E-07	567657.6	4219846.2	34.8	0.00	1.67	1.93	YES
	L0049326	0	0.61850E-07	567657.9	4219842.6	35.0	0.00	1.67	1.93	YES
	L0049327	0	0.61850E-07	567658.2	4219839.1	35.2	0.00	1.67	1.93	YES
	L0049328	0	0.61850E-07	567658.6	4219835.5	35.3	0.00	1.67	1.93	YES
	L0049329	0	0.61850E-07	567658.9	4219831.9	35.5	0.00	1.67	1.93	YES
	L0049330	0	0.61850E-07	567659.2	4219828.3	35.6	0.00	1.67	1.93	YES
	L0049331	0	0.61850E-07	567659.5	4219824.7	35.8	0.00	1.67	1.93	YES
	L0049332	0	0.61850E-07	567659.9	4219821.1	36.0	0.00	1.67	1.93	YES
	L0049333	0	0.61850E-07	567660.2	4219817.6	36.1	0.00	1.67	1.93	YES
	L0049334	0	0.61850E-07	567659.2	4219814.2	36.3	0.00	1.67	1.93	YES
	L0049335	0	0.61850E-07	567657.7	4219810.9	36.5	0.00	1.67	1.93	YES
	L0049336	0	0.61850E-07	567656.3	4219807.6	36.7	0.00	1.67	1.93	YES
	L0049337	0	0.61850E-07	567653.9	4219805.2	36.9	0.00	1.67	1.93	YES
	L0049338	0	0.61850E-07	567650.7	4219803.5	37.0	0.00	1.67	1.93	YES
	L0049339	0	0.61850E-07	567647.5	4219801.9	37.1	0.00	1.67	1.93	YES
	L0049340	0	0.61850E-07	567644.3	4219800.2	37.3	0.00	1.67	1.93	YES
	L0049341	0	0.61850E-07	567641.1	4219798.5	37.4	0.00	1.67	1.93	YES
	L0049342	0	0.61850E-07	567637.9	4219796.8	37.4	0.00	1.67	1.93	YES
	L0049343	0	0.61850E-07	567634.7	4219795.2	37.4	0.00	1.67	1.93	YES

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 L0049344         0   0.61850E-07  567631.3 4219794.0    37.4     0.00     1.67
1.93     YES
 L0049345         0   0.61850E-07  567627.9 4219793.1    37.4     0.00     1.67
1.93     YES
 L0049346         0   0.61850E-07  567624.4 4219792.1    37.4     0.00     1.67
1.93     YES
 L0049347         0   0.61850E-07  567620.9 4219791.2    37.4     0.00     1.67
1.93     YES
 L0049348         0   0.61850E-07  567617.5 4219790.2    37.4     0.00     1.67
1.93     YES
 L0049349         0   0.61850E-07  567614.0 4219789.3    37.4     0.00     1.67
1.93     YES
 L0049350         0   0.61850E-07  567610.5 4219788.3    37.4     0.00     1.67
1.93     YES
 L0049351         0   0.61850E-07  567607.0 4219787.4    37.4     0.00     1.67
1.93     YES
 L0049352         0   0.61850E-07  567603.6 4219786.4    37.4     0.00     1.67
1.93     YES
 L0049353         0   0.61850E-07  567600.1 4219785.5    37.4     0.00     1.67
1.93     YES
 L0049354         0   0.61850E-07  567596.6 4219784.5    37.4     0.00     1.67
1.93     YES
 L0049355         0   0.61850E-07  567593.1 4219783.6    37.4     0.00     1.67
1.93     YES
 L0049356         0   0.61850E-07  567589.7 4219782.7    37.4     0.00     1.67
1.93     YES
 L0049357         0   0.61850E-07  567586.2 4219781.7    37.4     0.00     1.67
1.93     YES
 L0049358         0   0.61850E-07  567582.7 4219780.8    37.4     0.00     1.67
1.93     YES
 L0049359         0   0.61850E-07  567579.2 4219779.8    37.4     0.00     1.67
1.93     YES
 L0049360         0   0.61850E-07  567575.8 4219778.9    37.4     0.00     1.67
1.93     YES
 L0049361         0   0.61850E-07  567572.3 4219777.9    37.4     0.00     1.67
1.93     YES
 L0049362         0   0.61850E-07  567568.8 4219777.0    37.4     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***        14:46:01

                                 PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. SCALAR CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE VARY BY
L0049363	0	0.61850E-07	567565.4	4219776.0	37.4	0.00	1.67	1.93	YES
L0049364	0	0.61850E-07	567561.9	4219775.1	37.4	0.00	1.67	1.93	YES
L0049365	0	0.61850E-07	567558.4	4219774.2	37.4	0.00	1.67	1.93	YES
L0049366	0	0.61850E-07	567554.9	4219773.3	37.4	0.00	1.67	1.93	YES
L0049367	0	0.61850E-07	567551.4	4219772.3	37.4	0.00	1.67	1.93	YES
L0049368	0	0.61850E-07	567548.0	4219771.4	37.4	0.00	1.67	1.93	YES
L0049369	0	0.61850E-07	567544.5	4219770.5	37.4	0.00	1.67	1.93	YES
L0049370	0	0.61850E-07	567541.0	4219769.6	37.4	0.00	1.67	1.93	YES
L0049371	0	0.61850E-07	567537.5	4219768.6	37.4	0.00	1.67	1.93	YES
L0049372	0	0.61850E-07	567534.0	4219767.7	37.4	0.00	1.67	1.93	YES
L0049373	0	0.61850E-07	567530.6	4219766.8	37.4	0.00	1.67	1.93	YES
L0049374	0	0.61850E-07	567527.1	4219765.9	37.5	0.00	1.67	1.93	YES
L0049375	0	0.61850E-07	567523.6	4219764.9	37.7	0.00	1.67	1.93	YES
L0049376	0	0.61850E-07	567520.1	4219764.0	38.0	0.00	1.67	1.93	YES
L0049377	0	0.61850E-07	567516.6	4219763.1	38.3	0.00	1.67	1.93	YES
L0049378	0	0.61850E-07	567513.2	4219762.1	38.6	0.00	1.67	1.93	YES
L0049379	0	0.61850E-07	567509.7	4219761.2	38.6	0.00	1.67	1.93	YES
L0049380	0	0.61850E-07	567506.2	4219760.3	38.5	0.00	1.67	1.93	YES
L0049381	0	0.61850E-07	567502.7	4219759.4	38.4	0.00	1.67		

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1.93     YES
 L0049382         0   0.61850E-07  567499.2 4219758.4    38.2     0.00     1.67
1.93     YES
 L0049383         0   0.61850E-07  567495.8 4219757.5    37.9     0.00     1.67
1.93     YES
 L0049384         0   0.61850E-07  567492.3 4219756.6    37.8     0.00     1.67
1.93     YES
 L0049385         0   0.61850E-07  567488.8 4219755.7    37.6     0.00     1.67
1.93     YES
 L0049386         0   0.61850E-07  567485.3 4219754.7    37.4     0.00     1.67
1.93     YES
 L0049387         0   0.61850E-07  567481.9 4219753.8    37.4     0.00     1.67
1.93     YES
 L0049388         0   0.61850E-07  567478.4 4219752.9    37.4     0.00     1.67
1.93     YES
 L0049389         0   0.61850E-07  567474.9 4219752.0    37.4     0.00     1.67
1.93     YES
 L0049390         0   0.61850E-07  567471.4 4219751.0    37.4     0.00     1.67
1.93     YES
 L0049391         0   0.61850E-07  567467.9 4219750.1    37.4     0.00     1.67
1.93     YES
 L0049392         0   0.61850E-07  567464.5 4219749.2    37.4     0.00     1.67
1.93     YES
 L0049393         0   0.61850E-07  567461.0 4219748.3    37.4     0.00     1.67
1.93     YES
 L0049394         0   0.61850E-07  567457.5 4219747.4    37.4     0.00     1.67
1.93     YES
 L0049395         0   0.61850E-07  567454.0 4219746.5    37.4     0.00     1.67
1.93     YES
 L0049396         0   0.61850E-07  567450.5 4219745.6    37.4     0.00     1.67
1.93     YES
 L0049397         0   0.61850E-07  567447.0 4219744.7    37.4     0.00     1.67
1.93     YES
 L0049398         0   0.61850E-07  567443.5 4219743.8    37.4     0.00     1.67
1.93     YES
 L0049399         0   0.61850E-07  567440.0 4219743.0    37.3     0.00     1.67
1.93     YES
 L0049400         0   0.61850E-07  567436.6 4219742.1    37.4     0.00     1.67
1.93     YES
 L0049401         0   0.61850E-07  567433.1 4219741.2    37.5     0.00     1.67
1.93     YES
 L0049402         0   0.61850E-07  567429.6 4219740.3    37.7     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***       14:46:01
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE SCALAR VARY
L0049403	0	0.61850E-07	567426.1	4219739.4	38.0	0.00	1.67	1.93	YES	
L0049404	0	0.61850E-07	567422.6	4219738.6	38.2	0.00	1.67	1.93	YES	
L0049405	0	0.61850E-07	567419.1	4219737.7	38.5	0.00	1.67	1.93	YES	
L0049406	0	0.61850E-07	567415.6	4219736.8	38.8	0.00	1.67	1.93	YES	
L0049407	0	0.61850E-07	567412.1	4219735.9	39.0	0.00	1.67	1.93	YES	
L0049408	0	0.61850E-07	567408.6	4219735.0	39.3	0.00	1.67	1.93	YES	
L0049409	0	0.61850E-07	567405.1	4219734.2	39.5	0.00	1.67	1.93	YES	
L0049410	0	0.61850E-07	567403.2	4219732.4	39.5	0.00	1.67	1.93	YES	
L0049411	0	0.61850E-07	567404.2	4219728.9	39.3	0.00	1.67	1.93	YES	
L0049412	0	0.61850E-07	567405.2	4219725.5	39.1	0.00	1.67	1.93	YES	
L0049413	0	0.61850E-07	567406.2	4219722.0	39.0	0.00	1.67	1.93	YES	
L0049414	0	0.61850E-07	567407.2	4219718.6	39.0	0.00	1.67	1.93	YES	
L0049415	0	0.61850E-07	567408.2	4219715.1	39.0	0.00	1.67	1.93	YES	
L0049416	0	0.61850E-07	567409.2	4219711.6	38.9	0.00	1.67	1.93	YES	
L0049417	0	0.61850E-07	567410.2	4219708.2	38.9	0.00	1.67	1.93	YES	
L0049418	0	0.61850E-07	567411.6	4219704.9	38.8	0.00	1.67	1.93	YES	

L0049419	0	0.61850E-07	567413.1	4219701.6	38.8	0.00	1.67
1.93	YES						
L0049420	0	0.61850E-07	567414.6	4219698.3	38.6	0.00	1.67
1.93	YES						
L0049421	0	0.61850E-07	567416.1	4219695.1	38.5	0.00	1.67
1.93	YES						
L0049422	0	0.61850E-07	567417.6	4219691.8	38.4	0.00	1.67
1.93	YES						
L0049423	0	0.61850E-07	567419.1	4219688.5	38.3	0.00	1.67
1.93	YES						
L0049424	0	0.61850E-07	567420.6	4219685.2	38.2	0.00	1.67
1.93	YES						
L0049425	0	0.61850E-07	567421.7	4219681.8	38.1	0.00	1.67
1.93	YES						
L0049426	0	0.61850E-07	567422.6	4219678.3	38.0	0.00	1.67
1.93	YES						
L0049427	0	0.61850E-07	567423.5	4219674.9	37.8	0.00	1.67
1.93	YES						
L0049428	0	0.61850E-07	567424.4	4219671.4	37.7	0.00	1.67
1.93	YES						
L0049429	0	0.61850E-07	567425.3	4219667.9	37.6	0.00	1.67
1.93	YES						
L0049430	0	0.61850E-07	567426.2	4219664.4	37.5	0.00	1.67
1.93	YES						
L0049431	0	0.61850E-07	567427.1	4219660.9	37.4	0.00	1.67
1.93	YES						
L0049432	0	0.61850E-07	567428.0	4219657.4	37.2	0.00	1.67
1.93	YES						
L0049433	0	0.61850E-07	567428.9	4219653.9	37.1	0.00	1.67
1.93	YES						
L0049434	0	0.61850E-07	567429.8	4219650.5	37.0	0.00	1.67
1.93	YES						
L0049435	0	0.61850E-07	567430.7	4219647.0	36.9	0.00	1.67
1.93	YES						
L0049436	0	0.61850E-07	567431.6	4219643.5	36.8	0.00	1.67
1.93	YES						
L0049437	0	0.61850E-07	567432.5	4219640.0	36.6	0.00	1.67
1.93	YES						
L0049438	0	0.61850E-07	567433.4	4219636.5	36.6	0.00	1.67
1.93	YES						
L0049439	0	0.61850E-07	567434.2	4219633.0	36.6	0.00	1.67
1.93	YES						
L0049440	0	0.61850E-07	567434.9	4219629.5	36.5	0.00	1.67
1.93	YES						
L0049441	0	0.61850E-07	567435.7	4219626.0	36.6	0.00	1.67
1.93	YES						
L0049442	0	0.61850E-07	567436.4	4219622.4	36.6	0.00	1.67
1.93	YES						

 *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                       ***   14:46:01

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	URBAN SOURCE SZ	EMISSION RATE SCALAR VARY BY
L0049443	0	0.61850E-07	567437.2	4219618.9	36.6	0.00	1.67	1.93	YES
L0049444	0	0.61850E-07	567437.9	4219615.4	36.7	0.00	1.67	1.93	YES
L0049445	0	0.61850E-07	567438.1	4219611.8	36.7	0.00	1.67	1.93	YES
L0049446	0	0.61850E-07	567438.2	4219608.2	36.7	0.00	1.67	1.93	YES
L0049447	0	0.61850E-07	567438.4	4219604.6	36.8	0.00	1.67	1.93	YES
L0049448	0	0.61850E-07	567438.6	4219601.0	36.8	0.00	1.67	1.93	YES
L0049449	0	0.61850E-07	567438.8	4219597.4	36.8	0.00	1.67	1.93	YES
L0049450	0	0.61850E-07	567439.0	4219593.8	36.8	0.00	1.67	1.93	YES
L0049451	0	0.61850E-07	567439.2	4219590.2	36.9	0.00	1.67	1.93	YES
L0049452	0	0.61850E-07	567439.4	4219586.6	36.9	0.00	1.67	1.93	YES
L0049453	0	0.61850E-07	567439.6	4219583.0	36.9	0.00	1.67	1.93	YES
L0049454	0	0.61850E-07	567439.7	4219579.4	36.9	0.00	1.67	1.93	YES
L0049455	0	0.61850E-07	567439.7	4219575.8	37.0	0.00	1.67	1.93	YES
L0049456	0	0.61850E-07	567439.7	4219572.2	37.0	0.00	1.67		

```
1.93     YES
 L0049457         0   0.61850E-07  567439.8 4219568.6    37.1     0.00     1.67
1.93     YES
 L0049458         0   0.61850E-07  567439.8 4219565.0    37.0     0.00     1.67
1.93     YES
 L0049459         0   0.61850E-07  567439.9 4219561.4    37.0     0.00     1.67
1.93     YES
 L0049460         0   0.61850E-07  567439.9 4219557.8    36.9     0.00     1.67
1.93     YES
 L0049461         0   0.61850E-07  567440.0 4219554.2    36.9     0.00     1.67
1.93     YES
 L0049462         0   0.61850E-07  567440.0 4219550.6    36.8     0.00     1.67
1.93     YES
 L0049463         0   0.61850E-07  567440.0 4219547.0    36.8     0.00     1.67
1.93     YES
 L0006548         0   0.36590E-07  567729.9 4220202.3    30.9     0.00     1.67
1.93     YES
 L0006549         0   0.36590E-07  567732.9 4220200.4    30.9     0.00     1.67
1.93     YES
 L0006550         0   0.36590E-07  567736.0 4220198.4    30.9     0.00     1.67
1.93     YES
 L0006551         0   0.36590E-07  567739.0 4220196.5    30.9     0.00     1.67
1.93     YES
 L0006552         0   0.36590E-07  567742.1 4220194.6    31.0     0.00     1.67
1.93     YES
 L0006553         0   0.36590E-07  567745.1 4220192.6    31.0     0.00     1.67
1.93     YES
 L0006554         0   0.36590E-07  567748.1 4220190.7    31.0     0.00     1.67
1.93     YES
 L0006555         0   0.36590E-07  567751.2 4220188.8    31.0     0.00     1.67
1.93     YES
 L0006556         0   0.36590E-07  567754.2 4220186.8    31.0     0.00     1.67
1.93     YES
 L0006557         0   0.36590E-07  567757.4 4220185.6    31.1     0.00     1.67
1.93     YES
 L0006558         0   0.36590E-07  567761.0 4220185.6    31.1     0.00     1.67
1.93     YES
 L0006559         0   0.36590E-07  567764.6 4220185.7    31.2     0.00     1.67
1.93     YES
 L0006560         0   0.36590E-07  567768.2 4220185.7    31.2     0.00     1.67
1.93     YES
 L0006561         0   0.36590E-07  567771.8 4220185.8    31.3     0.00     1.67
1.93     YES
 L0006562         0   0.36590E-07  567775.4 4220185.8    31.4     0.00     1.67
1.93     YES
 L0006563         0   0.36590E-07  567779.0 4220185.8    31.4     0.00     1.67
1.93     YES
 L0006564         0   0.36590E-07  567782.6 4220185.9    31.6     0.00     1.67
```

```
1.93     YES
 L0006565         0   0.36590E-07  567786.2 4220185.9    31.7     0.00     1.67
1.93     YES
 L0006566         0   0.36590E-07  567789.8 4220185.9    31.8     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0006567         0   0.36590E-07  567793.4 4220186.0    31.9     0.00     1.67
1.93     YES
 L0006568         0   0.36590E-07  567797.0 4220186.0    31.9     0.00     1.67
1.93     YES
 L0006569         0   0.36590E-07  567800.6 4220186.0    32.0     0.00     1.67
1.93     YES
 L0006570         0   0.36590E-07  567804.2 4220186.1    32.1     0.00     1.67
1.93     YES
 L0006571         0   0.36590E-07  567807.8 4220186.1    32.2     0.00     1.67
1.93     YES
 L0006572         0   0.36590E-07  567811.4 4220186.1    32.3     0.00     1.67
1.93     YES
 L0006573         0   0.36590E-07  567815.0 4220186.2    32.4     0.00     1.67
1.93     YES
 L0006574         0   0.36590E-07  567818.6 4220186.2    32.5     0.00     1.67
1.93     YES
 L0006575         0   0.36590E-07  567822.2 4220186.2    32.6     0.00     1.67
1.93     YES
 L0006576         0   0.36590E-07  567825.8 4220186.3    32.7     0.00     1.67
1.93     YES
 L0006577         0   0.36590E-07  567829.4 4220186.3    32.8     0.00     1.67
1.93     YES
```

L0006578	0	0.36590E-07	567833.0	4220186.3	32.9	0.00	1.67
1.93	YES						
L0006579	0	0.36590E-07	567836.6	4220186.4	33.0	0.00	1.67
1.93	YES						
L0006580	0	0.36590E-07	567840.2	4220186.4	33.1	0.00	1.67
1.93	YES						
L0006581	0	0.36590E-07	567843.8	4220186.4	33.2	0.00	1.67
1.93	YES						
L0006582	0	0.36590E-07	567847.4	4220186.5	33.4	0.00	1.67
1.93	YES						
L0006583	0	0.36590E-07	567851.0	4220186.5	33.5	0.00	1.67
1.93	YES						
L0006584	0	0.36590E-07	567854.6	4220186.5	33.7	0.00	1.67
1.93	YES						
L0006585	0	0.36590E-07	567858.2	4220186.6	33.8	0.00	1.67
1.93	YES						
L0006586	0	0.36590E-07	567861.8	4220186.6	33.9	0.00	1.67
1.93	YES						
L0006587	0	0.36590E-07	567865.4	4220186.6	34.0	0.00	1.67
1.93	YES						
L0006588	0	0.36590E-07	567869.0	4220186.7	34.2	0.00	1.67
1.93	YES						
L0006589	0	0.36590E-07	567872.6	4220186.7	34.3	0.00	1.67
1.93	YES						
L0006590	0	0.36590E-07	567876.2	4220186.7	34.5	0.00	1.67
1.93	YES						
L0006591	0	0.36590E-07	567879.8	4220186.8	34.6	0.00	1.67
1.93	YES						
L0006592	0	0.36590E-07	567883.4	4220186.8	34.8	0.00	1.67
1.93	YES						
L0006593	0	0.36590E-07	567887.0	4220186.8	34.9	0.00	1.67
1.93	YES						
L0006594	0	0.36590E-07	567890.6	4220186.9	35.0	0.00	1.67
1.93	YES						
L0006595	0	0.36590E-07	567894.2	4220186.9	35.1	0.00	1.67
1.93	YES						
L0006596	0	0.36590E-07	567897.8	4220186.9	35.2	0.00	1.67
1.93	YES						
L0006597	0	0.36590E-07	567901.4	4220187.0	35.3	0.00	1.67
1.93	YES						
L0006598	0	0.36590E-07	567905.0	4220187.0	35.4	0.00	1.67
1.93	YES						
L0006599	0	0.36590E-07	567908.6	4220187.0	35.5	0.00	1.67
1.93	YES						
L0006600	0	0.36590E-07	567912.2	4220187.1	35.5	0.00	1.67
1.93	YES						
L0006601	0	0.36590E-07	567915.8	4220187.1	35.6	0.00	1.67
1.93	YES						

 L0006602   0   0.36590E-07 567919.4 4220187.2   35.6   0.00   1.67
1.93   YES
 L0006603   0   0.36590E-07 567923.0 4220187.2   35.7   0.00   1.67
1.93   YES
 L0006604   0   0.36590E-07 567926.6 4220187.2   35.7   0.00   1.67
1.93   YES
 L0006605   0   0.36590E-07 567930.2 4220187.3   35.8   0.00   1.67
1.93   YES
 L0006606   0   0.36590E-07 567933.8 4220187.3   35.8   0.00   1.67
1.93   YES

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
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 L0006607   0   0.36590E-07 567937.4 4220187.3   35.9   0.00   1.67
1.93   YES
 L0006608   0   0.36590E-07 567941.0 4220187.4   35.9   0.00   1.67
1.93   YES
 L0006609   0   0.36590E-07 567944.6 4220187.4   35.9   0.00   1.67
1.93   YES
 L0006610   0   0.36590E-07 567948.2 4220187.4   35.9   0.00   1.67
1.93   YES
 L0006611   0   0.36590E-07 567951.8 4220187.5   36.0   0.00   1.67
1.93   YES
 L0006612   0   0.36590E-07 567955.4 4220187.5   36.0   0.00   1.67
1.93   YES
 L0006613   0   0.36590E-07 567959.0 4220187.6   36.1   0.00   1.67
1.93   YES
 L0006614   0   0.36590E-07 567962.6 4220187.7   36.1   0.00   1.67
1.93   YES
 L0006615   0   0.36590E-07 567966.2 4220187.8   36.2   0.00   1.67

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1.93     YES
 L0006616         0   0.36590E-07  567969.8 4220187.9    36.2     0.00     1.67
1.93     YES
 L0006617         0   0.36590E-07  567973.4 4220188.0    36.2     0.00     1.67
1.93     YES
 L0006618         0   0.36590E-07  567977.0 4220188.1    36.2     0.00     1.67
1.93     YES
 L0006619         0   0.36590E-07  567980.6 4220187.9    36.3     0.00     1.67
1.93     YES
 L0006620         0   0.36590E-07  567984.2 4220187.6    36.4     0.00     1.67
1.93     YES
 L0006621         0   0.36590E-07  567987.8 4220187.3    36.5     0.00     1.67
1.93     YES
 L0006622         0   0.36590E-07  567991.4 4220187.0    36.7     0.00     1.67
1.93     YES
 L0006623         0   0.36590E-07  567995.0 4220186.6    36.8     0.00     1.67
1.93     YES
 L0006624         0   0.36590E-07  567998.5 4220186.3    36.8     0.00     1.67
1.93     YES
 L0006625         0   0.36590E-07  568002.1 4220186.0    36.8     0.00     1.67
1.93     YES
 L0006626         0   0.36590E-07  568005.7 4220185.7    36.7     0.00     1.67
1.93     YES
 L0006627         0   0.36590E-07  568009.3 4220185.4    36.5     0.00     1.67
1.93     YES
 L0006628         0   0.36590E-07  568012.9 4220185.1    36.3     0.00     1.67
1.93     YES
 L0006629         0   0.36590E-07  568016.1 4220186.3    36.3     0.00     1.67
1.93     YES
 L0006630         0   0.36590E-07  568019.1 4220188.3    36.4     0.00     1.67
1.93     YES
 L0006631         0   0.36590E-07  568022.1 4220190.2    36.4     0.00     1.67
1.93     YES
 L0006632         0   0.36590E-07  568025.0 4220192.4    36.5     0.00     1.67
1.93     YES
 L0006633         0   0.36590E-07  568026.8 4220195.5    36.8     0.00     1.67
1.93     YES
 L0006634         0   0.36590E-07  568028.6 4220198.6    37.0     0.00     1.67
1.93     YES
 L0006635         0   0.36590E-07  568029.4 4220202.0    37.1     0.00     1.67
1.93     YES
 L0006636         0   0.36590E-07  568029.8 4220205.6    37.2     0.00     1.67
1.93     YES
 L0006637         0   0.36590E-07  568030.2 4220209.2    37.4     0.00     1.67
1.93     YES
 L0006638         0   0.36590E-07  568030.6 4220212.8    37.4     0.00     1.67
1.93     YES
 L0006639         0   0.36590E-07  568031.0 4220216.3    37.5     0.00     1.67
```

1.93 YES
L0006640 0 0.36590E-07 568031.4 4220219.9 37.5 0.00 1.67
1.93 YES
L0006641 0 0.36590E-07 568031.9 4220223.5 37.6 0.00 1.67
1.93 YES
L0006642 0 0.36590E-07 568032.3 4220227.1 37.6 0.00 1.67
1.93 YES
L0006643 0 0.36590E-07 568032.7 4220230.6 37.7 0.00 1.67
1.93 YES
L0006644 0 0.36590E-07 568033.1 4220234.2 37.5 0.00 1.67
1.93 YES
L0006645 0 0.36590E-07 568033.5 4220237.8 37.3 0.00 1.67
1.93 YES
L0006646 0 0.36590E-07 568033.9 4220241.4 37.1 0.00 1.67
1.93 YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ	URBAN SOURCE	EMISSION RATE VARY BY
L0006647	0	0.36590E-07	568034.3	4220244.9	36.7	0.00	1.67	1.93	YES	
L0006648	0	0.36590E-07	568034.7	4220248.5	36.3	0.00	1.67	1.93	YES	
L0006649	0	0.36590E-07	568035.1	4220252.1	35.8	0.00	1.67	1.93	YES	
L0006650	0	0.36590E-07	568035.5	4220255.7	35.4	0.00	1.67	1.93	YES	
L0006651	0	0.36590E-07	568035.9	4220259.3	34.9	0.00	1.67	1.93	YES	
L0006652	0	0.36590E-07	568036.3	4220262.8	34.5	0.00	1.67	1.93	YES	

L0006653	0	0.36590E-07	568036.7	4220266.4	34.2	0.00	1.67
1.93	YES						
L0006654	0	0.36590E-07	568037.1	4220270.0	33.9	0.00	1.67
1.93	YES						
L0006655	0	0.36590E-07	568037.5	4220273.6	33.7	0.00	1.67
1.93	YES						
L0006656	0	0.36590E-07	568037.9	4220277.1	33.4	0.00	1.67
1.93	YES						
L0006657	0	0.36590E-07	568038.3	4220280.7	33.2	0.00	1.67
1.93	YES						
L0006658	0	0.36590E-07	568038.7	4220284.3	32.9	0.00	1.67
1.93	YES						
L0006659	0	0.36590E-07	568039.1	4220287.9	32.6	0.00	1.67
1.93	YES						
L0006660	0	0.36590E-07	568039.5	4220291.4	32.2	0.00	1.67
1.93	YES						
L0006661	0	0.36590E-07	568040.0	4220295.0	31.9	0.00	1.67
1.93	YES						
L0006662	0	0.36590E-07	568040.4	4220298.6	31.6	0.00	1.67
1.93	YES						
L0006663	0	0.36590E-07	568040.8	4220302.2	31.3	0.00	1.67
1.93	YES						
L0006664	0	0.36590E-07	568041.2	4220305.8	31.1	0.00	1.67
1.93	YES						
L0006665	0	0.36590E-07	568041.6	4220309.3	30.9	0.00	1.67
1.93	YES						
L0006666	0	0.36590E-07	568042.0	4220312.9	30.8	0.00	1.67
1.93	YES						
L0006667	0	0.36590E-07	568042.4	4220316.5	30.6	0.00	1.67
1.93	YES						
L0006668	0	0.36590E-07	568042.8	4220320.1	30.5	0.00	1.67
1.93	YES						
L0006669	0	0.36590E-07	568043.2	4220323.6	30.4	0.00	1.67
1.93	YES						
L0006670	0	0.36590E-07	568043.6	4220327.2	30.2	0.00	1.67
1.93	YES						
L0006671	0	0.36590E-07	568044.0	4220330.8	30.1	0.00	1.67
1.93	YES						
L0006672	0	0.36590E-07	568044.4	4220334.4	30.0	0.00	1.67
1.93	YES						
L0006673	0	0.36590E-07	568044.8	4220338.0	29.9	0.00	1.67
1.93	YES						
L0006674	0	0.36590E-07	568045.2	4220341.5	29.8	0.00	1.67
1.93	YES						
L0006675	0	0.36590E-07	568045.6	4220345.1	29.8	0.00	1.67
1.93	YES						
L0006676	0	0.36590E-07	568046.0	4220348.7	29.8	0.00	1.67
1.93	YES						

 L0006677   0   0.36590E-07 568046.4 4220352.3   29.8   0.00   1.67
1.93   YES
 L0006678   0   0.36590E-07 568046.8 4220355.8   29.8   0.00   1.67
1.93   YES
 L0006679   0   0.36590E-07 568047.2 4220359.4   29.8   0.00   1.67
1.93   YES
 L0006680   0   0.36590E-07 568047.6 4220363.0   29.9   0.00   1.67
1.93   YES
 L0006681   0   0.36590E-07 568048.0 4220366.6   29.9   0.00   1.67
1.93   YES
 L0006682   0   0.36590E-07 568048.0 4220370.2   30.0   0.00   1.67
1.93   YES
 L0006683   0   0.36590E-07 568047.9 4220373.8   30.0   0.00   1.67
1.93   YES
 L0006684   0   0.36590E-07 568047.9 4220377.4   30.1   0.00   1.67
1.93   YES
 L0006685   0   0.36590E-07 568047.8 4220381.0   30.1   0.00   1.67
1.93   YES
 L0006686   0   0.36590E-07 568047.8 4220384.6   30.2   0.00   1.67
1.93   YES

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
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 L0006687   0   0.36590E-07 568047.7 4220388.2   30.2   0.00   1.67
1.93   YES
 L0006688   0   0.36590E-07 568047.7 4220391.8   30.3   0.00   1.67
1.93   YES
 L0006689   0   0.36590E-07 568047.6 4220395.4   30.4   0.00   1.67
1.93   YES
 L0006690   0   0.36590E-07 568047.6 4220399.0   30.4   0.00   1.67

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1.93     YES
 L0006691         0   0.36590E-07  568047.5 4220402.6    30.5     0.00     1.67
1.93     YES
 L0006692         0   0.36590E-07  568047.4 4220406.2    30.6     0.00     1.67
1.93     YES
 L0006693         0   0.36590E-07  568047.4 4220409.8    30.6     0.00     1.67
1.93     YES
 L0006694         0   0.36590E-07  568047.3 4220413.4    30.6     0.00     1.67
1.93     YES
 L0006695         0   0.36590E-07  568047.3 4220417.0    30.6     0.00     1.67
1.93     YES
 L0006696         0   0.36590E-07  568047.2 4220420.6    30.6     0.00     1.67
1.93     YES
 L0006697         0   0.36590E-07  568047.2 4220424.2    30.6     0.00     1.67
1.93     YES
 L0006698         0   0.36590E-07  568047.1 4220427.8    30.6     0.00     1.67
1.93     YES
 L0006699         0   0.36590E-07  568047.1 4220431.4    30.6     0.00     1.67
1.93     YES
 L0006700         0   0.36590E-07  568047.0 4220435.0    30.6     0.00     1.67
1.93     YES
 L0006701         0   0.36590E-07  568046.9 4220438.6    30.6     0.00     1.67
1.93     YES
 L0006702         0   0.36590E-07  568046.9 4220442.2    30.5     0.00     1.67
1.93     YES
 L0006703         0   0.36590E-07  568046.8 4220445.8    30.5     0.00     1.67
1.93     YES
 L0006704         0   0.36590E-07  568046.7 4220449.3    30.5     0.00     1.67
1.93     YES
 L0006705         0   0.36590E-07  568044.3 4220452.0    30.6     0.00     1.67
1.93     YES
 L0006706         0   0.36590E-07  568041.7 4220454.2    30.7     0.00     1.67
1.93     YES
 L0006707         0   0.36590E-07  568038.1 4220454.2    30.9     0.00     1.67
1.93     YES
 L0006708         0   0.36590E-07  568034.5 4220454.2    31.2     0.00     1.67
1.93     YES
 L0006709         0   0.36590E-07  568030.9 4220454.2    31.5     0.00     1.67
1.93     YES
 L0006710         0   0.36590E-07  568027.3 4220454.2    31.9     0.00     1.67
1.93     YES
 L0006711         0   0.36590E-07  568023.7 4220454.2    32.3     0.00     1.67
1.93     YES
 L0006712         0   0.36590E-07  568020.1 4220454.2    32.6     0.00     1.67
1.93     YES
 L0006713         0   0.36590E-07  568016.5 4220454.2    33.1     0.00     1.67
1.93     YES
 L0006714         0   0.36590E-07  568012.9 4220454.2    33.6     0.00     1.67
```

1.93 YES
L0006715 0 0.36590E-07 568009.3 4220454.2 34.0 0.00 1.67
1.93 YES
L0006716 0 0.36590E-07 568005.7 4220454.2 34.6 0.00 1.67
1.93 YES
L0006717 0 0.36590E-07 568002.1 4220454.2 35.2 0.00 1.67
1.93 YES
L0006718 0 0.36590E-07 567998.5 4220454.2 35.8 0.00 1.67
1.93 YES
L0006719 0 0.36590E-07 567994.9 4220454.2 36.3 0.00 1.67
1.93 YES
L0006720 0 0.36590E-07 567991.3 4220454.2 36.7 0.00 1.67
1.93 YES
L0006721 0 0.36590E-07 567987.7 4220454.2 37.1 0.00 1.67
1.93 YES
L0006722 0 0.36590E-07 567984.1 4220454.2 37.5 0.00 1.67
1.93 YES
L0006723 0 0.36590E-07 567980.5 4220454.2 37.7 0.00 1.67
1.93 YES
L0006724 0 0.36590E-07 567976.9 4220454.2 37.9 0.00 1.67
1.93 YES
L0006725 0 0.36590E-07 567973.3 4220454.2 38.1 0.00 1.67
1.93 YES
L0006726 0 0.36590E-07 567969.7 4220454.2 38.2 0.00 1.67
1.93 YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006727	0	0.36590E-07	567966.1	4220454.2	38.4	0.00	1.67	1.93	YES	

L0006728	0	0.36590E-07	567962.5	4220454.2	38.6	0.00	1.67
1.93	YES						
L0006729	0	0.36590E-07	567958.9	4220454.2	38.8	0.00	1.67
1.93	YES						
L0006730	0	0.36590E-07	567955.3	4220454.2	39.0	0.00	1.67
1.93	YES						
L0006731	0	0.36590E-07	567951.7	4220454.2	39.1	0.00	1.67
1.93	YES						
L0006732	0	0.36590E-07	567948.1	4220454.2	39.2	0.00	1.67
1.93	YES						
L0006733	0	0.36590E-07	567944.5	4220454.2	39.4	0.00	1.67
1.93	YES						
L0006734	0	0.36590E-07	567940.9	4220454.2	39.5	0.00	1.67
1.93	YES						
L0006735	0	0.36590E-07	567937.3	4220454.2	39.6	0.00	1.67
1.93	YES						
L0006736	0	0.36590E-07	567933.7	4220454.2	39.6	0.00	1.67
1.93	YES						
L0006737	0	0.36590E-07	567930.1	4220454.2	39.6	0.00	1.67
1.93	YES						
L0006738	0	0.36590E-07	567926.5	4220454.2	39.7	0.00	1.67
1.93	YES						
L0006739	0	0.36590E-07	567922.9	4220454.2	39.7	0.00	1.67
1.93	YES						
L0006740	0	0.36590E-07	567919.3	4220454.2	39.6	0.00	1.67
1.93	YES						
L0006741	0	0.36590E-07	567915.7	4220454.2	39.7	0.00	1.67
1.93	YES						
L0006742	0	0.36590E-07	567912.1	4220454.2	39.7	0.00	1.67
1.93	YES						
L0006743	0	0.36590E-07	567908.5	4220454.2	39.7	0.00	1.67
1.93	YES						
L0006744	0	0.36590E-07	567904.9	4220454.2	39.8	0.00	1.67
1.93	YES						
L0006745	0	0.36590E-07	567901.3	4220454.2	39.8	0.00	1.67
1.93	YES						
L0006746	0	0.36590E-07	567897.7	4220454.2	39.9	0.00	1.67
1.93	YES						
L0006747	0	0.36590E-07	567894.1	4220454.2	40.0	0.00	1.67
1.93	YES						
L0006748	0	0.36590E-07	567890.5	4220454.3	40.0	0.00	1.67
1.93	YES						
L0006749	0	0.36590E-07	567887.0	4220455.1	40.1	0.00	1.67
1.93	YES						
L0006750	0	0.36590E-07	567883.5	4220455.9	40.1	0.00	1.67
1.93	YES						
L0006751	0	0.36590E-07	567880.0	4220456.7	40.2	0.00	1.67
1.93	YES						

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 L0006752         0   0.36590E-07  567876.5 4220457.6    40.3     0.00     1.67
1.93     YES
 L0006753         0   0.36590E-07  567873.1 4220458.8    40.3     0.00     1.67
1.93     YES
 L0006754         0   0.36590E-07  567869.7 4220460.0    40.4     0.00     1.67
1.93     YES
 L0006755         0   0.36590E-07  567866.3 4220461.2    40.4     0.00     1.67
1.93     YES
 L0006756         0   0.36590E-07  567863.1 4220462.8    40.4     0.00     1.67
1.93     YES
 L0006757         0   0.36590E-07  567860.1 4220464.8    40.3     0.00     1.67
1.93     YES
 L0006758         0   0.36590E-07  567857.1 4220466.8    40.1     0.00     1.67
1.93     YES
 L0006759         0   0.90769E-03  567931.8 4220218.5    35.9     0.00     1.67
1.93     YES
 L0006760         0   0.90769E-03  567931.5 4220214.9    35.8     0.00     1.67
1.93     YES
 L0006761         0   0.90769E-03  567931.3 4220211.3    35.7     0.00     1.67
1.93     YES
 L0006762         0   0.90769E-03  567931.0 4220207.7    35.7     0.00     1.67
1.93     YES
 L0006763         0   0.90769E-03  567930.8 4220204.1    35.7     0.00     1.67
1.93     YES
 L0006764         0   0.90769E-03  567930.6 4220200.5    35.7     0.00     1.67
1.93     YES
 L0006765         0   0.90769E-03  567931.0 4220197.5    35.7     0.00     1.67
1.93     YES
 L0006766         0   0.90769E-03  567934.6 4220197.2    35.7     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE  23
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0006767         0   0.90769E-03  567938.2 4220196.9    35.8     0.00     1.67
1.93     YES
 L0006768         0   0.90769E-03  567941.8 4220196.6    35.8     0.00     1.67
1.93     YES
 L0006769         0   0.90769E-03  567945.4 4220196.3    35.8     0.00     1.67
1.93     YES
 L0006770         0   0.90769E-03  567949.0 4220196.0    35.8     0.00     1.67
1.93     YES
 L0006771         0   0.90769E-03  567952.5 4220195.7    35.9     0.00     1.67
1.93     YES
 L0049490         0   0.74440E-06  567643.8 4219930.7    31.9     0.00     1.67
1.93     YES
 L0049491         0   0.74440E-06  567640.2 4219930.6    31.9     0.00     1.67
1.93     YES
 L0049492         0   0.74440E-06  567636.6 4219930.5    32.0     0.00     1.67
1.93     YES
 L0049493         0   0.74440E-06  567633.0 4219930.3    32.0     0.00     1.67
1.93     YES
 L0049494         0   0.74440E-06  567629.4 4219930.2    32.0     0.00     1.67
1.93     YES
 L0049495         0   0.74440E-06  567625.8 4219930.1    32.1     0.00     1.67
1.93     YES
 L0049496         0   0.74440E-06  567622.6 4219931.3    32.1     0.00     1.67
1.93     YES
 L0049497         0   0.74440E-06  567619.6 4219933.3    32.0     0.00     1.67
1.93     YES
 L0049498         0   0.74440E-06  567616.7 4219935.4    31.9     0.00     1.67
1.93     YES
 L0049499         0   0.74440E-06  567613.7 4219937.4    31.9     0.00     1.67
1.93     YES
 L0049500         0   0.74440E-06  567610.8 4219939.6    31.9     0.00     1.67
1.93     YES
 L0049501         0   0.74440E-06  567608.4 4219942.3    31.9     0.00     1.67
1.93     YES
 L0049502         0   0.74440E-06  567606.1 4219945.0    31.9     0.00     1.67
1.93     YES
 L0049503         0   0.74440E-06  567603.7 4219947.7    31.9     0.00     1.67
1.93     YES
 L0049504         0   0.74440E-06  567601.3 4219950.4    32.0     0.00     1.67
1.93     YES
 L0049505         0   0.74440E-06  567600.1 4219953.6    32.0     0.00     1.67
1.93     YES
 L0049506         0   0.74440E-06  567599.8 4219957.2    32.0     0.00     1.67
1.93     YES
 L0049507         0   0.74440E-06  567599.5 4219960.8    32.1     0.00     1.67
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1.93     YES
 L0049508         0   0.74440E-06  567599.2 4219964.4    32.1     0.00     1.67
1.93     YES
 L0049509         0   0.74440E-06  567599.0 4219968.0    32.2     0.00     1.67
1.93     YES
 L0049510         0   0.74440E-06  567598.7 4219971.5    32.2     0.00     1.67
1.93     YES
 L0049511         0   0.74440E-06  567599.3 4219975.1    32.2     0.00     1.67
1.93     YES
 L0049512         0   0.74440E-06  567600.0 4219978.6    32.2     0.00     1.67
1.93     YES
 L0049513         0   0.74440E-06  567600.7 4219982.1    32.2     0.00     1.67
1.93     YES
 L0049514         0   0.74440E-06  567601.4 4219985.7    32.3     0.00     1.67
1.93     YES
 L0049515         0   0.74440E-06  567602.1 4219989.2    32.3     0.00     1.67
1.93     YES
 L0049516         0   0.74440E-06  567602.8 4219992.7    32.4     0.00     1.67
1.93     YES
 L0049517         0   0.41020E-06  567401.1 4219738.4    40.0     0.00     1.67
1.93     YES
 L0049518         0   0.41020E-06  567401.5 4219742.0    40.2     0.00     1.67
1.93     YES
 L0049519         0   0.41020E-06  567401.9 4219745.6    40.5     0.00     1.67
1.93     YES
 L0049520         0   0.41020E-06  567402.2 4219749.2    40.8     0.00     1.67
1.93     YES
 L0049521         0   0.41020E-06  567402.6 4219752.7    41.1     0.00     1.67
1.93     YES
 L0049522         0   0.41020E-06  567403.9 4219755.9    41.3     0.00     1.67
1.93     YES
 L0049523         0   0.41020E-06  567406.4 4219758.6    41.4     0.00     1.67
1.93     YES
 L0049524         0   0.41020E-06  567408.8 4219761.2    41.5     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE  24
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
```

INIT. SOURCE ID	URBAN PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE VARY BY
L0049525	0	0.41020E-06	567411.2	4219763.8	41.5	0.00	1.67	1.93	YES
L0049526	0	0.41020E-06	567413.7	4219766.5	41.6	0.00	1.67	1.93	YES
L0049527	0	0.41020E-06	567416.1	4219769.1	41.6	0.00	1.67	1.93	YES
L0049528	0	0.41020E-06	567418.6	4219771.8	41.6	0.00	1.67	1.93	YES
L0049529	0	0.41020E-06	567421.0	4219774.4	41.7	0.00	1.67	1.93	YES
L0049530	0	0.41020E-06	567423.4	4219777.1	41.7	0.00	1.67	1.93	YES
L0049531	0	0.41020E-06	567425.9	4219779.7	41.8	0.00	1.67	1.93	YES
L0049532	0	0.41020E-06	567428.3	4219782.4	41.8	0.00	1.67	1.93	YES
L0049533	0	0.41020E-06	567430.8	4219785.0	41.8	0.00	1.67	1.93	YES
L0049534	0	0.41020E-06	567433.3	4219787.6	41.8	0.00	1.67	1.93	YES
L0049535	0	0.41020E-06	567435.7	4219790.2	41.9	0.00	1.67	1.93	YES
L0049536	0	0.41020E-06	567438.2	4219792.8	41.9	0.00	1.67	1.93	YES
L0049537	0	0.41020E-06	567440.7	4219795.5	41.9	0.00	1.67	1.93	YES
L0049538	0	0.41020E-06	567443.2	4219798.1	41.9	0.00	1.67	1.93	YES
L0049539	0	0.41020E-06	567445.6	4219800.7	41.8	0.00	1.67	1.93	YES
L0049540	0	0.41020E-06	567448.1	4219803.3	41.8	0.00	1.67	1.93	YES
L0049541	0	0.41020E-06	567450.6	4219805.9	41.7	0.00	1.67	1.93	YES
L0049542	0	0.41020E-06	567453.1	4219808.5	41.6	0.00	1.67	1.93	YES
L0049543	0	0.41020E-06	567455.5	4219811.1	41.6	0.00	1.67	1.93	YES
L0049544	0	0.41020E-06	567458.0	4219813.8	41.5	0.00	1.67	1.93	YES

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 L0049545         0   0.41020E-06  567460.5 4219816.4    41.4     0.00     1.67
1.93     YES
 L0049546         0   0.41020E-06  567463.0 4219819.0    41.3     0.00     1.67
1.93     YES
 L0049547         0   0.41020E-06  567465.4 4219821.6    41.2     0.00     1.67
1.93     YES
 L0049548         0   0.41020E-06  567467.9 4219824.2    41.0     0.00     1.67
1.93     YES
 L0049549         0   0.41020E-06  567470.4 4219826.8    40.7     0.00     1.67
1.93     YES
 L0049550         0   0.41020E-06  567472.9 4219829.4    40.3     0.00     1.67
1.93     YES
 L0049551         0   0.41020E-06  567475.4 4219832.0    39.8     0.00     1.67
1.93     YES
 L0049552         0   0.41020E-06  567477.8 4219834.7    39.1     0.00     1.67
1.93     YES
 L0049553         0   0.41020E-06  567480.3 4219837.3    38.6     0.00     1.67
1.93     YES
 L0049554         0   0.41020E-06  567482.8 4219839.9    38.3     0.00     1.67
1.93     YES
 L0049555         0   0.41020E-06  567485.3 4219842.5    37.8     0.00     1.67
1.93     YES
 L0049556         0   0.41020E-06  567487.3 4219845.5    37.6     0.00     1.67
1.93     YES
 L0049557         0   0.41020E-06  567489.1 4219848.6    37.7     0.00     1.67
1.93     YES
 L0049558         0   0.41020E-06  567490.9 4219851.7    37.8     0.00     1.67
1.93     YES
 L0049559         0   0.41020E-06  567492.8 4219854.7    37.7     0.00     1.67
1.93     YES
 L0049560         0   0.41020E-06  567494.6 4219857.8    37.5     0.00     1.67
1.93     YES
 L0049561         0   0.41020E-06  567496.5 4219860.9    37.7     0.00     1.67
1.93     YES
 L0049562         0   0.41020E-06  567498.3 4219864.0    37.8     0.00     1.67
1.93     YES
 L0049563         0   0.41020E-06  567500.2 4219867.1    37.7     0.00     1.67
1.93     YES
 L0049564         0   0.41020E-06  567502.0 4219870.2    37.6     0.00     1.67
1.93     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE  25
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** VOLUME SOURCE DATA ***

```
               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 L0049565         0   0.41020E-06  567503.9 4219873.3    37.6     0.00     1.67
1.93     YES
```


*** AREA SOURCE DATA ***

```
               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 GS_TRUCK         0   0.11779E-08  567808.1 4220196.2    32.5     4.15     48.31
56.41      0.00     0.00     YES
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*** SOURCE IDs DEFINING SOURCE GROUPS ***

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↑ *** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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01/16/19
 *** AERMET - VERSION  14134 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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*** AERMOD - VERSION 18081 *** ***
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01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 30
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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*** AERMOD - VERSION 18081 *** ***
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01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***        14:46:01

                                 PAGE  32
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***       14:46:01
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

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 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***        14:46:01

                                 PAGE  34
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
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  URBAN ID   URBAN POP                                    SOURCE IDs
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*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 35
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES
***

URBAN ID	URBAN POP	SOURCE IDs

L0049163 , L0049164 , L0049165 , L0049166 , L0049167 ,
L0049168 , L0049169 , L0049170 ,

L0049171 , L0049172 , L0049173 , L0049174 , L0049175 ,
L0049176 , L0049177 , L0049178 ,

L0049179 , L0049180 , L0049181 , L0049182 , L0049183 ,
L0049184 , L0049185 , L0049186 ,

L0049187 , L0049188 , L0049189 , L0049190 , L0049191 ,
L0049192 , L0049193 , L0049194 ,

L0049195 , L0049196 , L0049197 , L0049198 , L0049199 ,
L0049200 , L0049201 , L0049202 ,

L0049203 , L0049204 , L0049205 , L0049206 , L0049207 ,
L0049208 , L0049209 , L0049210 ,

L0049211 , L0049212 , L0049213 , L0049214 , L0049215 ,
L0049216 , L0049217 , L0049218 ,

L0049219 , L0049220 , L0049221 , L0049222 , L0049223 ,
L0049224 , L0049225 , L0049226 ,

L0049227 , L0049228 , L0049229 , L0049230 , L0049231 ,
L0049232 , L0049233 , L0049234 ,

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L0049248    , L0049249    , L0049250    ,

             L0049251    , L0049252    , L0049253    , L0049254    , L0049255    ,
L0049256    , L0049257    , L0049258    ,

             L0049259    , L0049260    , L0049261    , L0049262    , L0049263    ,
L0049264    , L0049265    , L0049266    ,

             L0049267    , L0049268    , L0049269    , L0049270    , L0049271    ,
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L0049320    , L0049321    , L0049322    ,
 *** AERMOD - VERSION  18081 ***   ***
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01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***       14:46:01

                                  PAGE  36
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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L0049323 , L0049324 , L0049325 , L0049326 , L0049327 ,
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L0049384 , L0049385 , L0049386 ,

L0049387 , L0049388 , L0049389 , L0049390 , L0049391 ,
L0049392 , L0049393 , L0049394 ,

L0049395 , L0049396 , L0049397 , L0049398 , L0049399 ,
L0049400 , L0049401 , L0049402 ,

L0049403 , L0049404 , L0049405 , L0049406 , L0049407 ,
L0049408 , L0049409 , L0049410 ,

L0049411 , L0049412 , L0049413 , L0049414 , L0049415 ,
L0049416 , L0049417 , L0049418 ,

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L0049424 , L0049425 , L0049426 ,

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L0006564 , L0006565 , L0006566 ,
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 37
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES
***

URBAN ID	URBAN POP	SOURCE IDs

L0006567 , L0006568 , L0006569 , L0006570 , L0006571 ,
L0006572 , L0006573 , L0006574 ,

L0006575 , L0006576 , L0006577 , L0006578 , L0006579 ,
L0006580 , L0006581 , L0006582 ,

L0006583 , L0006584 , L0006585 , L0006586 , L0006587 ,
L0006588 , L0006589 , L0006590 ,

L0006591 , L0006592 , L0006593 , L0006594 , L0006595 ,
L0006596 , L0006597 , L0006598 ,

L0006599 , L0006600 , L0006601 , L0006602 , L0006603 ,
L0006604 , L0006605 , L0006606 ,

L0006607 , L0006608 , L0006609 , L0006610 , L0006611 ,
L0006612 , L0006613 , L0006614 ,

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L0006620 , L0006621 , L0006622 ,

L0006623 , L0006624 , L0006625 , L0006626 , L0006627 ,
L0006628 , L0006629 , L0006630 ,

L0006631 , L0006632 , L0006633 , L0006634 , L0006635 ,
L0006636 , L0006637 , L0006638 ,

L0006639 , L0006640 , L0006641 , L0006642 , L0006643 ,
L0006644 , L0006645 , L0006646 ,

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L0006660 , L0006661 , L0006662 ,

L0006663 , L0006664 , L0006665 , L0006666 , L0006667 ,
L0006668 , L0006669 , L0006670 ,

L0006671 , L0006672 , L0006673 , L0006674 , L0006675 ,
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L0006679 , L0006680 , L0006681 , L0006682 , L0006683 ,
L0006684 , L0006685 , L0006686 ,

L0006687 , L0006688 , L0006689 , L0006690 , L0006691 ,
L0006692 , L0006693 , L0006694 ,

L0006695 , L0006696 , L0006697 , L0006698 , L0006699 ,
L0006700 , L0006701 , L0006702 ,

L0006703 , L0006704 , L0006705 , L0006706 , L0006707 ,
L0006708 , L0006709 , L0006710 ,

L0006711 , L0006712 , L0006713 , L0006714 , L0006715 ,
L0006716 , L0006717 , L0006718 ,

L0006719 , L0006720 , L0006721 , L0006722 , L0006723 ,
L0006724 , L0006725 , L0006726 ,
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 38
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
		L0006727 , L0006728 , L0006729 , L0006730 , L0006731 , L0006732 , L0006733 , L0006734 ,
		L0006735 , L0006736 , L0006737 , L0006738 , L0006739 , L0006740 , L0006741 , L0006742 ,
		L0006743 , L0006744 , L0006745 , L0006746 , L0006747 , L0006748 , L0006749 , L0006750 ,
		L0006751 , L0006752 , L0006753 , L0006754 , L0006755 , L0006756 , L0006757 , L0006758 ,
		L0006759 , L0006760 , L0006761 , L0006762 , L0006763 , L0006764 , L0006765 , L0006766 ,
		L0006767 , L0006768 , L0006769 , L0006770 , L0006771 , GS_TRUCK , L0049490 , L0049491 ,
		L0049492 , L0049493 , L0049494 , L0049495 , L0049496 , L0049497 , L0049498 , L0049499 ,
		L0049500 , L0049501 , L0049502 , L0049503 , L0049504 , L0049505 , L0049506 , L0049507 ,
		L0049508 , L0049509 , L0049510 , L0049511 , L0049512 , L0049513 , L0049514 , L0049515 ,
		L0049516 , L0049517 , L0049518 , L0049519 , L0049520 , L0049521 , L0049522 , L0049523 ,
		L0049524 , L0049525 , L0049526 , L0049527 , L0049528 , L0049529 , L0049530 , L0049531 ,
		L0049532 , L0049533 , L0049534 , L0049535 , L0049536 , L0049537 , L0049538 , L0049539 ,
		L0049540 , L0049541 , L0049542 , L0049543 , L0049544 , L0049545 , L0049546 , L0049547 ,

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            L0049556    , L0049557    , L0049558    , L0049559    , L0049560    ,
L0049561    , L0049562    , L0049563    ,

            L0049564    , L0049565    ,
↑ *** AERMOD - VERSION  18081 ***   ***
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01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE  39
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                        (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                      (METERS)

     ( 567539.9, 4220159.2,      35.9,      75.3,       0.0);         ( 567589.9,
4220159.2,      34.6,      75.3,       0.0);
     ( 567639.9, 4220159.2,      32.5,      75.3,       0.0);         ( 567539.9,
4220209.2,      38.0,      75.3,       0.0);
     ( 567589.9, 4220209.2,      35.1,      75.3,       0.0);         ( 567639.9,
4220209.2,      31.2,      75.3,       0.0);
     ( 567539.9, 4220259.2,      37.2,      75.3,       0.0);         ( 567589.9,
4220259.2,      34.5,      75.3,       0.0);
     ( 567639.9, 4220259.2,      30.3,      75.3,       0.0);         ( 567689.9,
4220259.2,      30.0,      75.3,       0.0);
     ( 567539.9, 4220309.2,      35.4,      75.3,       0.0);         ( 567589.9,
4220309.2,      33.8,      75.3,       0.0);
     ( 567639.9, 4220309.2,      31.7,      75.3,       0.0);         ( 567689.9,
4220309.2,      29.3,      75.3,       0.0);
     ( 567539.9, 4220359.2,      36.1,      75.3,       0.0);         ( 567589.9,
4220359.2,      33.6,      75.3,       0.0);
     ( 567639.9, 4220359.2,      31.9,      75.3,       0.0);         ( 567689.9,
4220359.2,      27.9,      75.3,       0.0);
     ( 567739.9, 4220359.2,      30.1,      30.1,       0.0);         ( 567539.9,
4220409.2,      36.4,      75.3,       0.0);
     ( 567589.9, 4220409.2,      34.1,      75.3,       0.0);         ( 567639.9,
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4220409.2,      29.4,     325.7,       0.0);
     ( 567539.9, 4220459.2,      39.9,      50.5,       0.0);         ( 567589.9,
4220459.2,      36.0,      50.5,       0.0);
     ( 567639.9, 4220459.2,      31.5,      50.5,       0.0);         ( 567689.9,
4220459.2,      26.4,     325.7,       0.0);
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     ( 567739.9, 4220459.2,      29.4,     325.7,       0.0);         ( 567539.9,
4220509.2,      47.1,      50.1,       0.0);
     ( 567589.9, 4220509.2,      39.9,      50.5,       0.0);         ( 567639.9,
4220509.2,      33.0,      50.5,       0.0);
     ( 567689.9, 4220509.2,      26.5,     325.7,       0.0);         ( 567739.9,
4220509.2,      28.7,     325.7,       0.0);
     ( 567539.9, 4220559.2,      40.6,      50.5,       0.0);         ( 567589.9,
4220559.2,      34.4,      50.5,       0.0);
     ( 567639.9, 4220559.2,      30.1,     325.7,       0.0);         ( 567689.9,
4220559.2,      26.1,     325.7,       0.0);
     ( 567739.9, 4220559.2,      28.1,     325.7,       0.0);         ( 567789.9,
4220559.2,      29.6,     325.7,       0.0);
     ( 567539.9, 4220609.2,      34.1,      50.5,       0.0);         ( 567589.9,
4220609.2,      29.5,     325.7,       0.0);
     ( 567639.9, 4220609.2,      27.2,     325.7,       0.0);         ( 567689.9,
4220609.2,      26.5,     325.7,       0.0);
     ( 567739.9, 4220609.2,      28.2,     325.7,       0.0);         ( 567789.9,
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     ( 567040.1, 4219808.6,      50.5,      50.5,       0.0);         ( 567090.1,
4219808.6,      50.8,      50.8,       0.0);
     ( 567140.1, 4219808.6,      50.3,      50.3,       0.0);         ( 567190.1,
4219808.6,      47.7,      48.3,       0.0);
     ( 567240.1, 4219808.6,      45.7,      45.7,       0.0);         ( 567290.1,
4219808.6,      44.7,      75.3,       0.0);
     ( 567340.1, 4219808.6,      45.6,      75.3,       0.0);         ( 567040.1,
4219858.6,      45.9,      51.9,       0.0);
     ( 567090.1, 4219858.6,      50.5,      50.5,       0.0);         ( 567140.1,
4219858.6,      52.1,      52.1,       0.0);
     ( 567190.1, 4219858.6,      50.2,      50.2,       0.0);         ( 567240.1,
4219858.6,      48.5,      75.3,       0.0);
     ( 567290.1, 4219858.6,      48.1,      75.3,       0.0);         ( 567340.1,
4219858.6,      49.2,      75.3,       0.0);
     ( 567390.1, 4219858.6,      53.1,      68.5,       0.0);         ( 567040.1,
4219908.6,      42.3,      52.5,       0.0);
     ( 567090.1, 4219908.6,      43.1,      75.3,       0.0);         ( 567140.1,
4219908.6,      49.2,      75.3,       0.0);
     ( 567190.1, 4219908.6,      51.9,      75.3,       0.0);         ( 567240.1,
4219908.6,      51.7,      75.3,       0.0);
     ( 567290.1, 4219908.6,      51.9,      75.3,       0.0);         ( 567340.1,
4219908.6,      54.5,      75.3,       0.0);
     ( 567390.1, 4219908.6,      59.0,      63.0,       0.0);         ( 567440.1,
4219908.6,      55.5,      68.9,       0.0);
     ( 567490.1, 4219908.6,      44.3,      75.3,       0.0);         ( 567040.1,
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     ( 567090.1, 4219958.6,      44.4,      75.3,       0.0);         ( 567140.1,
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     ( 567190.1, 4219958.6,      52.4,      75.3,       0.0);         ( 567240.1,
4219958.6,      55.0,      75.3,       0.0);
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4219958.6,   57.8,   69.8,   0.0);
     (567490.1, 4219958.6,   42.7,   75.3,   0.0);   (567040.1,
4220008.6,   44.8,   75.3,   0.0);
     (567090.1, 4220008.6,   47.5,   75.3,   0.0);   (567140.1,
4220008.6,   51.0,   75.3,   0.0);
     (567190.1, 4220008.6,   55.3,   75.3,   0.0);   (567240.1,
4220008.6,   57.9,   75.3,   0.0);
     (567290.1, 4220008.6,   63.1,   75.3,   0.0);   (567340.1,
4220008.6,   66.8,   74.1,   0.0);
     (567390.1, 4220008.6,   66.9,   68.3,   0.0);   (567440.1,
4220008.6,   59.1,   75.3,   0.0);
↟ *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   14:46:01

                                  PAGE 40
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                  (METERS)

     (567490.1, 4220008.6,   50.1,   75.3,   0.0);   (567540.1,
4220008.6,   36.5,   75.3,   0.0);
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4220058.6,   44.0,   75.3,   0.0);
     (567140.1, 4220058.6,   50.0,   75.3,   0.0);   (567190.1,
4220058.6,   55.7,   75.3,   0.0);
     (567240.1, 4220058.6,   60.5,   75.3,   0.0);   (567290.1,
4220058.6,   67.9,   75.3,   0.0);
     (567340.1, 4220058.6,   71.8,   72.1,   0.0);   (567390.1,
4220058.6,   62.5,   75.3,   0.0);
     (567440.1, 4220058.6,   53.1,   75.3,   0.0);   (567490.1,
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     (567540.1, 4220058.6,   36.2,   75.3,   0.0);   (567040.1,
4220108.6,   43.1,   75.3,   0.0);
     (567090.1, 4220108.6,   48.7,   75.3,   0.0);   (567140.1,
4220108.6,   50.5,   75.3,   0.0);
     (567190.1, 4220108.6,   54.5,   75.3,   0.0);   (567240.1,
4220108.6,   60.0,   75.3,   0.0);
     (567290.1, 4220108.6,   69.9,   75.3,   0.0);   (567340.1,
4220108.6,   71.6,   75.3,   0.0);
     (567390.1, 4220108.6,   60.8,   75.3,   0.0);   (567440.1,

4220108.6,	47.3,	75.3,	0.0);
(567490.1, 4220108.6,	36.9,	75.3,	0.0);	(567540.1,
4220108.6,	35.5,	75.3,	0.0);
(567040.1, 4220158.6,	45.0,	75.3,	0.0);	(567090.1,
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(567140.1, 4220158.6,	52.5,	75.3,	0.0);	(567190.1,
4220158.6,	57.2,	75.3,	0.0);
(567240.1, 4220158.6,	63.2,	75.3,	0.0);	(567290.1,
4220158.6,	70.1,	75.1,	0.0);
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4220158.6,	55.4,	75.3,	0.0);
(567440.1, 4220158.6,	44.1,	75.3,	0.0);	(567490.1,
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(567540.1, 4220158.6,	35.9,	75.3,	0.0);	(567040.1,
4220208.6,	44.0,	75.3,	0.0);
(567090.1, 4220208.6,	50.3,	75.3,	0.0);	(567140.1,
4220208.6,	53.3,	75.3,	0.0);
(567190.1, 4220208.6,	56.4,	75.3,	0.0);	(567240.1,
4220208.6,	63.4,	75.1,	0.0);
(567290.1, 4220208.6,	65.0,	75.3,	0.0);	(567340.1,
4220208.6,	56.5,	75.3,	0.0);
(567390.1, 4220208.6,	45.1,	75.3,	0.0);	(567440.1,
4220208.6,	41.2,	75.3,	0.0);
(567490.1, 4220208.6,	39.3,	75.3,	0.0);	(567540.1,
4220208.6,	38.0,	75.3,	0.0);
(567040.1, 4220258.6,	47.5,	63.7,	0.0);	(567090.1,
4220258.6,	50.4,	63.7,	0.0);
(567140.1, 4220258.6,	55.0,	63.7,	0.0);	(567190.1,
4220258.6,	61.1,	61.1,	0.0);
(567240.1, 4220258.6,	63.0,	63.0,	0.0);	(567290.1,
4220258.6,	56.4,	75.3,	0.0);
(567340.1, 4220258.6,	46.5,	75.3,	0.0);	(567390.1,
4220258.6,	40.4,	75.3,	0.0);
(567440.1, 4220258.6,	37.3,	75.3,	0.0);	(567490.1,
4220258.6,	37.4,	75.3,	0.0);
(567540.1, 4220258.6,	37.3,	75.3,	0.0);	(567040.1,
4220308.6,	48.4,	63.7,	0.0);
(567090.1, 4220308.6,	53.9,	63.7,	0.0);	(567140.1,
4220308.6,	59.9,	62.8,	0.0);
(567190.1, 4220308.6,	63.2,	63.2,	0.0);	(567240.1,
4220308.6,	54.4,	75.1,	0.0);
(567290.1, 4220308.6,	47.4,	75.3,	0.0);	(567340.1,
4220308.6,	41.9,	75.3,	0.0);
(567390.1, 4220308.6,	38.5,	75.3,	0.0);	(567440.1,
4220308.6,	37.6,	75.3,	0.0);
(567490.1, 4220308.6,	36.4,	75.3,	0.0);	(567540.1,
4220308.6,	35.4,	75.3,	0.0);
(567040.1, 4220358.6,	51.2,	57.9,	0.0);	(567090.1,

4220358.6,   51.4,   63.7,   0.0);
     (567140.1, 4220358.6,   53.6,   63.7,   0.0);   (567190.1,
4220358.6,   52.1,   63.7,   0.0);
     (567240.1, 4220358.6,   46.5,   75.3,   0.0);   (567290.1,
4220358.6,   42.5,   75.3,   0.0);
     (567340.1, 4220358.6,   41.2,   75.3,   0.0);   (567390.1,
4220358.6,   37.9,   75.3,   0.0);
     (567440.1, 4220358.6,   37.3,   75.3,   0.0);   (567490.1,
4220358.6,   37.1,   75.3,   0.0);
     (567540.1, 4220358.6,   36.1,   75.3,   0.0);   (567040.1,
4220408.6,   53.2,   57.9,   0.0);
     (567090.1, 4220408.6,   48.5,   63.7,   0.0);   (567140.1,
4220408.6,   48.2,   63.7,   0.0);
     (567190.1, 4220408.6,   48.7,   63.7,   0.0);   (567240.1,
4220408.6,   44.8,   75.1,   0.0);
     (567290.1, 4220408.6,   44.1,   75.3,   0.0);   (567340.1,
4220408.6,   43.4,   75.3,   0.0);
     (567390.1, 4220408.6,   43.0,   75.3,   0.0);   (567440.1,
4220408.6,   42.9,   75.3,   0.0);
     (567490.1, 4220408.6,   38.8,   75.3,   0.0);   (567540.1,
4220408.6,   36.4,   75.3,   0.0);
 *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   14:46:01

                                  PAGE 41
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                  (METERS)

     (567040.1, 4220458.6,   48.8,   57.9,   0.0);   (567090.1,
4220458.6,   45.4,   63.7,   0.0);
     (567140.1, 4220458.6,   47.6,   63.7,   0.0);   (567190.1,
4220458.6,   48.1,   63.7,   0.0);
     (567240.1, 4220458.6,   48.1,   63.3,   0.0);   (567290.1,
4220458.6,   47.5,   47.5,   0.0);
     (567340.1, 4220458.6,   47.3,   47.3,   0.0);   (567390.1,
4220458.6,   44.9,   44.9,   0.0);
     (567440.1, 4220458.6,   41.8,   41.8,   0.0);   (567490.1,
4220458.6,   40.8,   50.5,   0.0);
     (567540.1, 4220458.6,   39.8,   50.5,   0.0);   (567040.1,
4220508.6,   43.9,   57.9,   0.0);
     (567090.1, 4220508.6,   41.9,   63.4,   0.0);   (567140.1,
4220508.6,   43.4,   63.4,   0.0);

```
     ( 567190.1, 4220508.6,      47.4,      50.1,       0.0);         ( 567240.1,
4220508.6,      50.6,      50.6,       0.0);
     ( 567290.1, 4220508.6,      50.4,      50.4,       0.0);         ( 567340.1,
4220508.6,      50.7,      50.7,       0.0);
     ( 567390.1, 4220508.6,      43.4,      52.1,       0.0);         ( 567440.1,
4220508.6,      42.3,      50.5,       0.0);
     ( 567490.1, 4220508.6,      46.5,      50.5,       0.0);         ( 567540.1,
4220508.6,      47.1,      50.1,       0.0);
     ( 567040.1, 4220558.6,      40.0,      57.9,       0.0);         ( 567090.1,
4220558.6,      37.0,      63.4,       0.0);
     ( 567140.1, 4220558.6,      39.4,      63.3,       0.0);         ( 567190.1,
4220558.6,      43.6,      50.8,       0.0);
     ( 567240.1, 4220558.6,      48.8,      49.6,       0.0);         ( 567290.1,
4220558.6,      50.8,      50.8,       0.0);
     ( 567340.1, 4220558.6,      51.0,      51.0,       0.0);         ( 567390.1,
4220558.6,      42.9,      52.1,       0.0);
     ( 567440.1, 4220558.6,      43.9,      50.5,       0.0);         ( 567490.1,
4220558.6,      47.4,      50.5,       0.0);
     ( 567540.1, 4220558.6,      40.7,      50.5,       0.0);         ( 567040.1,
4220608.6,      37.2,      57.9,       0.0);
     ( 567090.1, 4220608.6,      36.5,      36.5,       0.0);         ( 567140.1,
4220608.6,      39.8,      49.7,       0.0);
     ( 567190.1, 4220608.6,      44.3,      50.1,       0.0);         ( 567240.1,
4220608.6,      49.8,      49.8,       0.0);
     ( 567290.1, 4220608.6,      50.8,      50.8,       0.0);         ( 567340.1,
4220608.6,      43.5,      52.1,       0.0);
     ( 567390.1, 4220608.6,      38.9,      52.1,       0.0);         ( 567440.1,
4220608.6,      39.4,      51.8,       0.0);
     ( 567490.1, 4220608.6,      39.9,      50.5,       0.0);         ( 567540.1,
4220608.6,      34.1,      50.5,       0.0);
     ( 567040.1, 4220658.6,      38.0,      57.6,       0.0);         ( 567090.1,
4220658.6,      37.1,      37.1,       0.0);
     ( 567140.1, 4220658.6,      40.5,      43.9,       0.0);         ( 567190.1,
4220658.6,      44.0,      44.0,       0.0);
     ( 567240.1, 4220658.6,      46.4,      47.0,       0.0);         ( 567290.1,
4220658.6,      47.8,      47.8,       0.0);
     ( 567340.1, 4220658.6,      45.0,      51.2,       0.0);         ( 567390.1,
4220658.6,      41.5,      51.2,       0.0);
     ( 567440.1, 4220658.6,      33.1,      52.1,       0.0);         ( 567490.1,
4220658.6,      30.9,      52.0,       0.0);
     ( 567540.1, 4220658.6,      30.9,     325.7,       0.0);         ( 567024.6,
4219459.2,      47.5,      52.1,       0.0);
     ( 567074.6, 4219459.2,      42.7,      52.1,       0.0);         ( 567124.6,
4219459.2,      40.5,      52.1,       0.0);
     ( 567174.6, 4219459.2,      38.0,      38.0,       0.0);         ( 567224.6,
4219459.2,      36.4,      36.4,       0.0);
     ( 567274.6, 4219459.2,      35.4,      35.4,       0.0);         ( 567324.6,
4219459.2,      34.1,      34.1,       0.0);
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     (567374.6, 4219459.2,   32.7,   100.1,   0.0);   (567424.6,
4219459.2,   32.5,   100.1,   0.0);
     (567024.6, 4219509.2,   51.9,   51.9,   0.0);   (567074.6,
4219509.2,   47.4,   51.8,   0.0);
     (567124.6, 4219509.2,   42.4,   51.8,   0.0);   (567174.6,
4219509.2,   39.7,   39.7,   0.0);
     (567224.6, 4219509.2,   38.1,   38.1,   0.0);   (567274.6,
4219509.2,   37.2,   37.2,   0.0);
     (567324.6, 4219509.2,   35.9,   35.9,   0.0);   (567374.6,
4219509.2,   34.2,   76.6,   0.0);
     (567424.6, 4219509.2,   34.9,   100.1,   0.0);   (567024.6,
4219559.2,   48.9,   50.1,   0.0);
     (567074.6, 4219559.2,   48.1,   48.1,   0.0);   (567124.6,
4219559.2,   43.5,   43.5,   0.0);
     (567174.6, 4219559.2,   41.2,   41.2,   0.0);   (567224.6,
4219559.2,   39.4,   39.4,   0.0);
     (567274.6, 4219559.2,   38.4,   38.4,   0.0);   (567324.6,
4219559.2,   37.0,   37.0,   0.0);
     (567374.6, 4219559.2,   35.6,   35.6,   0.0);   (567424.6,
4219559.2,   36.3,   80.3,   0.0);
     (567024.6, 4219609.2,   43.5,   51.4,   0.0);   (567074.6,
4219609.2,   45.0,   45.0,   0.0);
     (567124.6, 4219609.2,   43.1,   43.1,   0.0);   (567174.6,
4219609.2,   41.6,   41.6,   0.0);
     (567224.6, 4219609.2,   40.3,   40.3,   0.0);   (567274.6,
4219609.2,   38.9,   38.9,   0.0);
     (567324.6, 4219609.2,   37.5,   37.5,   0.0);   (567374.6,
4219609.2,   36.5,   36.5,   0.0);
 *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   14:46:01

                                  PAGE 42
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                  (METERS)

     (567424.6, 4219609.2,   36.1,   76.6,   0.0);   (567024.6,
4219659.2,   42.9,   42.9,   0.0);
     (567074.6, 4219659.2,   44.3,   44.3,   0.0);   (567124.6,
4219659.2,   43.2,   43.2,   0.0);
     (567174.6, 4219659.2,   42.1,   42.1,   0.0);   (567224.6,
4219659.2,   40.9,   40.9,   0.0);
     (567274.6, 4219659.2,   39.8,   39.8,   0.0);   (567324.6,

4219659.2,	38.6,	38.6,	0.0);
	(567374.6, 4219659.2,	37.2,	37.2,	0.0);	(567424.6,
4219659.2,	37.3,	64.9,	0.0);
	(567024.6, 4219709.2,	43.8,	43.8,	0.0);	(567074.6,
4219709.2,	46.1,	46.1,	0.0);
	(567124.6, 4219709.2,	44.7,	44.7,	0.0);	(567174.6,
4219709.2,	42.6,	42.6,	0.0);
	(567224.6, 4219709.2,	41.8,	41.8,	0.0);	(567274.6,
4219709.2,	41.1,	41.1,	0.0);
	(567324.6, 4219709.2,	39.9,	39.9,	0.0);	(567374.6,
4219709.2,	38.5,	67.8,	0.0);
	(567424.6, 4219709.2,	38.4,	63.0,	0.0);	(567024.6,
4219759.2,	47.8,	49.8,	0.0);
	(567074.6, 4219759.2,	48.8,	48.8,	0.0);	(567124.6,
4219759.2,	46.7,	46.7,	0.0);
	(567174.6, 4219759.2,	43.4,	51.0,	0.0);	(567224.6,
4219759.2,	43.3,	43.3,	0.0);
	(567274.6, 4219759.2,	42.5,	42.5,	0.0);	(567324.6,
4219759.2,	42.2,	69.5,	0.0);
	(567374.6, 4219759.2,	42.4,	69.5,	0.0);	(567024.6,
4219809.2,	48.0,	51.0,	0.0);
	(567074.6, 4219809.2,	50.8,	50.8,	0.0);	(567124.6,
4219809.2,	50.4,	50.4,	0.0);
	(567174.6, 4219809.2,	48.8,	49.3,	0.0);	(567224.6,
4219809.2,	46.2,	46.2,	0.0);
	(567274.6, 4219809.2,	44.8,	75.3,	0.0);	(567324.6,
4219809.2,	45.2,	75.3,	0.0);
	(567374.6, 4219809.2,	46.5,	74.1,	0.0);	(567524.6,
4219459.0,	35.7,	100.1,	0.0);
	(567574.6, 4219459.0,	36.8,	100.1,	0.0);	(567624.6,
4219459.0,	42.6,	100.1,	0.0);
	(567674.6, 4219459.0,	49.0,	100.1,	0.0);	(567724.6,
4219459.0,	64.0,	99.2,	0.0);
	(567774.6, 4219459.0,	75.6,	75.6,	0.0);	(567824.6,
4219459.0,	75.8,	80.8,	0.0);
	(567874.6, 4219459.0,	78.1,	81.4,	0.0);	(567924.6,
4219459.0,	69.4,	100.1,	0.0);
	(567524.6, 4219509.0,	37.5,	100.1,	0.0);	(567574.6,
4219509.0,	37.3,	100.1,	0.0);
	(567624.6, 4219509.0,	42.5,	100.1,	0.0);	(567674.6,
4219509.0,	48.8,	100.1,	0.0);
	(567724.6, 4219509.0,	63.2,	81.4,	0.0);	(567774.6,
4219509.0,	71.5,	76.1,	0.0);
	(567824.6, 4219509.0,	63.9,	100.1,	0.0);	(567874.6,
4219509.0,	70.4,	95.7,	0.0);
	(567924.6, 4219509.0,	69.8,	95.7,	0.0);	(567524.6,
4219559.0,	40.2,	100.1,	0.0);
	(567574.6, 4219559.0,	41.9,	100.1,	0.0);	(567624.6,

4219559.0,   46.0,   100.1,   0.0);
     (567674.6, 4219559.0,   53.3,   99.2,   0.0);   (567724.6,
4219559.0,   67.9,   69.2,   0.0);
     (567774.6, 4219559.0,   61.4,   81.4,   0.0);   (567824.6,
4219559.0,   52.9,   100.1,   0.0);
     (567874.6, 4219559.0,   60.7,   100.1,   0.0);   (567924.6,
4219559.0,   67.2,   95.7,   0.0);
     (567524.6, 4219609.0,   43.4,   80.3,   0.0);   (567574.6,
4219609.0,   48.4,   79.8,   0.0);
     (567624.6, 4219609.0,   52.5,   78.8,   0.0);   (567674.6,
4219609.0,   61.3,   66.4,   0.0);
     (567724.6, 4219609.0,   61.9,   74.6,   0.0);   (567774.6,
4219609.0,   49.8,   100.1,   0.0);
     (567824.6, 4219609.0,   42.9,   100.1,   0.0);   (567874.6,
4219609.0,   48.4,   100.1,   0.0);
     (567924.6, 4219609.0,   53.8,   100.1,   0.0);   (567524.6,
4219659.0,   43.2,   76.6,   0.0);
     (567574.6, 4219659.0,   48.6,   74.8,   0.0);   (567624.6,
4219659.0,   54.1,   66.4,   0.0);
     (567674.6, 4219659.0,   62.4,   64.1,   0.0);   (567724.6,
4219659.0,   54.1,   80.7,   0.0);
     (567774.6, 4219659.0,   44.5,   100.1,   0.0);   (567824.6,
4219659.0,   37.3,   100.1,   0.0);
     (567874.6, 4219659.0,   37.7,   100.1,   0.0);   (567924.6,
4219659.0,   39.5,   100.1,   0.0);
     (567624.6, 4219709.0,   44.4,   80.3,   0.0);   (567674.6,
4219709.0,   48.9,   76.6,   0.0);
     (567724.6, 4219709.0,   47.9,   81.4,   0.0);   (567774.6,
4219709.0,   40.6,   100.1,   0.0);
     (567824.6, 4219709.0,   36.2,   100.1,   0.0);   (567874.6,
4219709.0,   35.4,   100.1,   0.0);
     (567924.6, 4219709.0,   35.2,   100.1,   0.0);   (567674.6,
4219759.0,   36.4,   99.2,   0.0);
     (567724.6, 4219759.0,   36.5,   100.1,   0.0);   (567774.6,
4219759.0,   35.8,   100.1,   0.0);
 *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                       ***   14:46:01

                                  PAGE 43
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                               (METERS)

```
     ( 567824.6, 4219759.0,      34.4,     100.1,       0.0);         ( 567874.6,
4219759.0,      33.4,     100.1,       0.0);
     ( 567924.6, 4219759.0,      32.7,     100.1,       0.0);         ( 567924.6,
4219458.8,      69.4,     100.1,       0.0);
     ( 567974.6, 4219458.8,      60.7,     100.1,       0.0);         ( 568024.6,
4219458.8,      60.8,     100.1,       0.0);
     ( 568074.6, 4219458.8,      66.4,     100.1,       0.0);         ( 567924.6,
4219508.8,      69.8,      95.7,       0.0);
     ( 567974.6, 4219508.8,      61.9,     100.1,       0.0);         ( 568024.6,
4219508.8,      54.1,     100.1,       0.0);
     ( 568074.6, 4219508.8,      55.8,     100.1,       0.0);         ( 567924.6,
4219558.8,      67.3,      95.7,       0.0);
     ( 567974.6, 4219558.8,      63.8,      95.7,       0.0);         ( 568024.6,
4219558.8,      54.1,     100.1,       0.0);
     ( 568074.6, 4219558.8,      45.4,     100.1,       0.0);         ( 567924.6,
4219608.8,      53.9,     100.1,       0.0);
     ( 567974.6, 4219608.8,      53.8,     100.1,       0.0);         ( 568024.6,
4219608.8,      48.1,     100.1,       0.0);
     ( 568074.6, 4219608.8,      40.7,     100.1,       0.0);         ( 567924.6,
4219658.8,      39.5,     100.1,       0.0);
     ( 567974.6, 4219658.8,      40.0,     100.1,       0.0);         ( 568024.6,
4219658.8,      37.7,     100.1,       0.0);
     ( 568074.6, 4219658.8,      31.4,     100.1,       0.0);         ( 567924.6,
4219708.8,      35.2,     100.1,       0.0);
     ( 567974.6, 4219708.8,      34.0,     100.1,       0.0);         ( 568024.6,
4219708.8,      30.9,     100.1,       0.0);
     ( 568074.6, 4219708.8,      31.4,     100.1,       0.0);         ( 568124.6,
4219708.8,      37.7,     100.1,       0.0);
     ( 567924.6, 4219758.8,      32.7,     100.1,       0.0);         ( 567974.6,
4219758.8,      31.3,     100.1,       0.0);
     ( 568024.6, 4219758.8,      29.9,     100.1,       0.0);         ( 568074.6,
4219758.8,      35.3,     100.1,       0.0);
     ( 568124.6, 4219758.8,      42.6,      95.7,       0.0);         ( 567924.6,
4219808.8,      31.1,     100.1,       0.0);
     ( 567974.6, 4219808.8,      30.2,     100.1,       0.0);         ( 568024.6,
4219808.8,      32.1,     100.1,       0.0);
     ( 568074.6, 4219808.8,      37.5,      99.2,       0.0);         ( 568124.6,
4219808.8,      43.6,      95.7,       0.0);
     ( 567924.6, 4219858.8,      29.9,     100.1,       0.0);         ( 567974.6,
4219858.8,      29.7,     100.1,       0.0);
     ( 568024.6, 4219858.8,      34.5,      95.7,       0.0);         ( 568074.6,
4219858.8,      39.5,      95.7,       0.0);
     ( 568124.6, 4219858.8,      43.3,      95.7,       0.0);         ( 567924.6,
4219908.8,      30.2,      95.7,       0.0);
     ( 567974.6, 4219908.8,      30.7,      95.7,       0.0);         ( 568024.6,
4219908.8,      35.0,      95.7,       0.0);
     ( 568074.6, 4219908.8,      39.2,      95.7,       0.0);         ( 568124.6,
4219908.8,      43.4,      43.4,       0.0);
```

```
     ( 567924.6, 4219958.8,      31.8,      95.7,       0.0);         ( 567974.6,
4219958.8,      35.8,      35.8,       0.0);
     ( 568024.6, 4219958.8,      38.4,      38.4,       0.0);         ( 568074.6,
4219958.8,      40.4,      40.4,       0.0);
     ( 568124.6, 4219958.8,      43.6,      43.6,       0.0);         ( 567924.6,
4220008.8,      33.6,      33.6,       0.0);
     ( 567974.6, 4220008.8,      36.9,      36.9,       0.0);         ( 568024.6,
4220008.8,      40.0,      40.0,       0.0);
     ( 568074.6, 4220008.8,      42.5,      42.5,       0.0);         ( 568124.6,
4220008.8,      43.8,      43.8,       0.0);
     ( 567924.6, 4220058.8,      35.7,      35.7,       0.0);         ( 567974.6,
4220058.8,      38.2,      38.2,       0.0);
     ( 568024.6, 4220058.8,      41.2,      41.2,       0.0);         ( 568074.6,
4220058.8,      43.6,      43.6,       0.0);
     ( 568124.6, 4220058.8,      42.6,      42.6,       0.0);         ( 567924.6,
4220108.8,      36.5,      36.5,       0.0);
     ( 567974.6, 4220108.8,      38.5,      38.5,       0.0);         ( 568024.6,
4220108.8,      39.3,      39.3,       0.0);
     ( 568074.6, 4220108.8,      39.5,      39.5,       0.0);         ( 568124.6,
4220108.8,      38.4,      38.4,       0.0);
     ( 567924.6, 4220158.8,      36.4,      36.4,       0.0);         ( 567974.6,
4220158.8,      37.2,      37.2,       0.0);
     ( 568024.6, 4220158.8,      36.8,      36.8,       0.0);         ( 568074.6,
4220158.8,      36.1,      36.1,       0.0);
     ( 568124.6, 4220158.8,      35.9,     325.7,       0.0);         ( 568125.0,
4219709.0,      37.8,     100.1,       0.0);
     ( 568175.0, 4219709.0,      42.7,     100.1,       0.0);         ( 568225.0,
4219709.0,      47.7,      95.7,       0.0);
     ( 568275.0, 4219709.0,      51.5,      95.7,       0.0);         ( 568325.0,
4219709.0,      52.6,      95.7,       0.0);
     ( 568375.0, 4219709.0,      52.2,      87.8,       0.0);         ( 568425.0,
4219709.0,      52.2,      88.2,       0.0);
     ( 568475.0, 4219709.0,      53.3,      88.2,       0.0);         ( 568525.0,
4219709.0,      55.5,      88.2,       0.0);
     ( 568125.0, 4219759.0,      42.6,      95.7,       0.0);         ( 568175.0,
4219759.0,      47.6,      95.7,       0.0);
     ( 568225.0, 4219759.0,      52.4,      95.7,       0.0);         ( 568275.0,
4219759.0,      56.0,      56.0,       0.0);
     ( 568325.0, 4219759.0,      55.4,      55.4,       0.0);         ( 568375.0,
4219759.0,      54.0,      54.0,       0.0);
     ( 568425.0, 4219759.0,      53.5,      87.8,       0.0);         ( 568475.0,
4219759.0,      53.3,      88.2,       0.0);
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***       14:46:01
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(568525.0, 4219759.0, 52.7, 88.2, 0.0); (568125.0, 4219809.0, 43.7, 95.7, 0.0);
(568175.0, 4219809.0, 48.2, 95.7, 0.0); (568225.0, 4219809.0, 52.3, 56.3, 0.0);
(568275.0, 4219809.0, 55.9, 55.9, 0.0); (568325.0, 4219809.0, 56.0, 56.0, 0.0);
(568375.0, 4219809.0, 54.8, 54.8, 0.0); (568425.0, 4219809.0, 54.7, 54.7, 0.0);
(568475.0, 4219809.0, 55.6, 55.6, 0.0); (568525.0, 4219809.0, 48.3, 88.2, 0.0);
(568125.0, 4219859.0, 43.3, 95.7, 0.0); (568175.0, 4219859.0, 46.7, 46.7, 0.0);
(568225.0, 4219859.0, 49.3, 55.3, 0.0); (568275.0, 4219859.0, 54.0, 54.0, 0.0);
(568325.0, 4219859.0, 56.2, 56.2, 0.0); (568375.0, 4219859.0, 54.3, 54.3, 0.0);
(568425.0, 4219859.0, 54.8, 54.8, 0.0); (568475.0, 4219859.0, 55.8, 55.8, 0.0);
(568525.0, 4219859.0, 47.2, 88.2, 0.0); (568125.0, 4219909.0, 43.5, 43.5, 0.0);
(568175.0, 4219909.0, 46.6, 46.6, 0.0); (568225.0, 4219909.0, 50.0, 50.0, 0.0);
(568275.0, 4219909.0, 53.5, 53.5, 0.0); (568325.0, 4219909.0, 55.9, 55.9, 0.0);
(568375.0, 4219909.0, 52.8, 52.8, 0.0); (568425.0, 4219909.0, 50.3, 56.1, 0.0);
(568475.0, 4219909.0, 46.3, 87.5, 0.0); (568525.0, 4219909.0, 41.1, 88.2, 0.0);
(568125.0, 4219959.0, 43.6, 43.6, 0.0); (568175.0, 4219959.0, 44.4, 44.4, 0.0);
(568225.0, 4219959.0, 46.5, 55.3, 0.0); (568275.0, 4219959.0, 49.4, 56.2, 0.0);
(568325.0, 4219959.0, 51.3, 55.8, 0.0); (568375.0, 4219959.0, 49.3, 55.2, 0.0);
(568425.0, 4219959.0, 42.9, 56.6, 0.0); (568475.0, 4219959.0, 37.5, 325.7, 0.0);
(568525.0, 4219959.0, 42.2, 88.1, 0.0); (568125.0, 4220009.0, 43.8, 43.8, 0.0);
(568175.0, 4220009.0, 42.3, 42.3, 0.0); (568225.0, 4220009.0, 42.6, 55.9, 0.0);
(568275.0, 4220009.0, 43.2, 56.3, 0.0); (568325.0,

4220009.0, 44.1, 56.3, 0.0);
     (568375.0, 4220009.0, 44.2, 56.2, 0.0); (568425.0,
4220009.0, 36.4, 325.7, 0.0);
     (568475.0, 4220009.0, 41.9, 325.7, 0.0); (568525.0,
4220009.0, 50.5, 56.0, 0.0);
     (568125.0, 4220059.0, 42.6, 42.6, 0.0); (568175.0,
4220059.0, 40.1, 43.5, 0.0);
     (568225.0, 4220059.0, 39.1, 55.7, 0.0); (568275.0,
4220059.0, 40.5, 55.9, 0.0);
     (568325.0, 4220059.0, 39.2, 325.7, 0.0); (568375.0,
4220059.0, 37.1, 325.7, 0.0);
     (568425.0, 4220059.0, 42.2, 325.7, 0.0); (568475.0,
4220059.0, 48.3, 50.5, 0.0);
     (568525.0, 4220059.0, 52.1, 52.1, 0.0); (568125.0,
4220109.0, 38.3, 38.3, 0.0);
     (568175.0, 4220109.0, 37.4, 37.4, 0.0); (568225.0,
4220109.0, 38.2, 325.7, 0.0);
     (568275.0, 4220109.0, 38.4, 325.7, 0.0); (568325.0,
4220109.0, 37.0, 325.7, 0.0);
     (568375.0, 4220109.0, 40.4, 325.7, 0.0); (568425.0,
4220109.0, 47.0, 325.7, 0.0);
     (568475.0, 4220109.0, 50.3, 325.7, 0.0); (568525.0,
4220109.0, 49.3, 325.7, 0.0);
     (568125.0, 4220159.0, 35.9, 325.7, 0.0); (568175.0,
4220159.0, 37.4, 325.7, 0.0);
     (568225.0, 4220159.0, 38.2, 325.7, 0.0); (568275.0,
4220159.0, 37.1, 325.7, 0.0);
     (568325.0, 4220159.0, 37.4, 325.7, 0.0); (568375.0,
4220159.0, 41.7, 325.7, 0.0);
     (568425.0, 4220159.0, 43.1, 325.7, 0.0); (568475.0,
4220159.0, 43.8, 325.7, 0.0);
     (568525.0, 4220159.0, 45.2, 325.7, 0.0); (568125.0,
4220209.0, 36.0, 325.7, 0.0);
     (568175.0, 4220209.0, 38.1, 325.7, 0.0); (568225.0,
4220209.0, 36.7, 325.7, 0.0);
     (568275.0, 4220209.0, 34.3, 325.7, 0.0); (568325.0,
4220209.0, 37.8, 325.7, 0.0);
     (568375.0, 4220209.0, 38.8, 325.7, 0.0); (568425.0,
4220209.0, 39.0, 325.7, 0.0);
     (568475.0, 4220209.0, 43.6, 325.7, 0.0); (568525.0,
4220209.0, 44.3, 325.7, 0.0);
     (568125.0, 4220259.0, 32.7, 325.7, 0.0); (568175.0,
4220259.0, 35.1, 325.7, 0.0);
     (568225.0, 4220259.0, 31.0, 325.7, 0.0); (568275.0,
4220259.0, 33.1, 325.7, 0.0);
     (568325.0, 4220259.0, 36.3, 325.7, 0.0); (568375.0,
4220259.0, 37.1, 325.7, 0.0);
     (568425.0, 4220259.0, 36.2, 325.7, 0.0); (568475.0,

4220259.0, 37.5, 325.7, 0.0);
↟ *** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 *** ***
 *** 14:46:01

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(568525.0, 4220259.0, 37.5, 325.7, 0.0); (568125.0,
4220309.0, 30.1, 325.7, 0.0);
(568175.0, 4220309.0, 30.8, 325.7, 0.0); (568225.0,
4220309.0, 31.2, 325.7, 0.0);
(568275.0, 4220309.0, 33.9, 325.7, 0.0); (568325.0,
4220309.0, 37.3, 325.7, 0.0);
(568375.0, 4220309.0, 37.8, 325.7, 0.0); (568425.0,
4220309.0, 35.9, 325.7, 0.0);
(568475.0, 4220309.0, 34.0, 325.7, 0.0); (568525.0,
4220309.0, 33.4, 325.7, 0.0);
(568125.0, 4220359.0, 29.7, 325.7, 0.0); (568175.0,
4220359.0, 30.3, 325.7, 0.0);
(568225.0, 4220359.0, 31.1, 325.7, 0.0); (568275.0,
4220359.0, 32.7, 325.7, 0.0);
(568325.0, 4220359.0, 35.5, 325.7, 0.0); (568375.0,
4220359.0, 34.5, 325.7, 0.0);
(568425.0, 4220359.0, 32.2, 325.7, 0.0); (568475.0,
4220359.0, 32.5, 325.7, 0.0);
(568525.0, 4220359.0, 33.9, 325.7, 0.0); (568125.0,
4220409.0, 29.0, 325.7, 0.0);
(568175.0, 4220409.0, 30.0, 325.7, 0.0); (568225.0,
4220409.0, 30.3, 325.7, 0.0);
(568275.0, 4220409.0, 30.8, 325.7, 0.0); (568325.0,
4220409.0, 30.9, 325.7, 0.0);
(568375.0, 4220409.0, 30.9, 325.7, 0.0); (568425.0,
4220409.0, 31.8, 325.7, 0.0);
(568475.0, 4220409.0, 33.1, 325.7, 0.0); (568525.0,
4220409.0, 34.5, 325.7, 0.0);
(568125.0, 4220459.0, 28.2, 325.7, 0.0); (568175.0,
4220459.0, 28.7, 325.7, 0.0);
(568225.0, 4220459.0, 29.0, 325.7, 0.0); (568275.0,
4220459.0, 29.7, 325.7, 0.0);
(568325.0, 4220459.0, 30.5, 325.7, 0.0); (568375.0,
4220459.0, 31.3, 325.7, 0.0);

     (568425.0, 4220459.0,   32.4,   325.7,   0.0);   (568475.0,
4220459.0,   33.5,   325.7,   0.0);
     (568525.0, 4220459.0,   35.0,   325.7,   0.0);   (568125.0,
4220509.0,   27.7,   325.7,   0.0);
     (568175.0, 4220509.0,   28.4,   325.7,   0.0);   (568225.0,
4220509.0,   29.7,   325.7,   0.0);
     (568275.0, 4220509.0,   30.2,   325.7,   0.0);   (568325.0,
4220509.0,   30.9,   325.7,   0.0);
     (568375.0, 4220509.0,   31.9,   325.7,   0.0);   (568425.0,
4220509.0,   32.9,   325.7,   0.0);
     (568475.0, 4220509.0,   34.0,   325.7,   0.0);   (568525.0,
4220509.0,   35.1,   325.7,   0.0);
     (568125.0, 4220559.0,   28.3,   325.7,   0.0);   (568175.0,
4220559.0,   28.9,   325.7,   0.0);
     (568225.0, 4220559.0,   29.9,   325.7,   0.0);   (568275.0,
4220559.0,   30.3,   325.7,   0.0);
     (568325.0, 4220559.0,   31.3,   325.7,   0.0);   (568375.0,
4220559.0,   32.4,   325.7,   0.0);
     (568425.0, 4220559.0,   33.5,   325.7,   0.0);   (568475.0,
4220559.0,   34.9,   325.7,   0.0);
     (568525.0, 4220559.0,   35.3,   325.7,   0.0);   (568125.0,
4220609.0,   28.2,   325.7,   0.0);
     (568175.0, 4220609.0,   28.5,   325.7,   0.0);   (568225.0,
4220609.0,   29.4,   325.7,   0.0);
     (568275.0, 4220609.0,   29.8,   325.7,   0.0);   (568325.0,
4220609.0,   30.8,   325.7,   0.0);
     (568375.0, 4220609.0,   31.3,   325.7,   0.0);   (567040.2,
4220658.2,   37.9,   57.6,   0.0);
     (567090.2, 4220658.2,   37.1,   37.1,   0.0);   (567140.2,
4220658.2,   40.5,   43.9,   0.0);
 *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                       ***   14:46:01

                                  PAGE 46
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                     * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT
BE PERFORMED *
                       LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR
FASTAREA/FASTALL

                                SOURCE   - - RECEPTOR LOCATION - -
DISTANCE
                                  ID   XR (METERS)   YR (METERS)

(METERS)
- -
- - -

L0049431 567424.6 4219659.2
-0.56
L0049432 567424.6 4219659.2
0.27

↑ *** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 47
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23,
10.80,

↟ *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                       ***   14:46:01

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                  *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file: NapaCountyAirport_MetData\724955.SFC
                Met Version: 14134
   Profile file: NapaCountyAirport_MetData\724955.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:   93227   Upper air station no.:   23230
                  Name: NAPA_COUNTY_AIRPORT   Name:
OAKLAND/WSO_AP
                  Year: 2009   Year: 2009

 First 24 hours of scalar data
 YR MO DY JDY HR   H0   U*   W* DT/DZ ZICNV ZIMCH M-O LEN   Z0 BOWEN
ALBEDO REF WS   WD   HT REF TA   HT
- -
- - - - - - - - - - - - - - - - - - -
 09 01 01   1 01   -2.8 0.059 -9.000 -9.000 -999.   34.   6.8 0.03   0.63
1.00   1.76 111.   10.0 279.2   2.0
 09 01 01   1 02 -11.4 0.199 -9.000 -9.000 -999. 213.   62.6 0.03   0.63
1.00   3.36   98.   10.0 279.2   2.0
 09 01 01   1 03 -19.9 0.345 -9.000 -9.000 -999. 485.   187.0 0.03   0.63
1.00   5.36   94.   10.0 278.1   2.0
 09 01 01   1 04 -15.8 0.273 -9.000 -9.000 -999. 345.   117.7 0.03   0.63
1.00   4.36   93.   10.0 278.1   2.0
 09 01 01   1 05 -13.7 0.237 -9.000 -9.000 -999. 277.   88.3 0.03   0.63
1.00   3.86   93.   10.0 278.1   2.0
 09 01 01   1 06   -2.8 0.059 -9.000 -9.000 -999.   87.   6.8 0.03   0.63
1.00   1.76   92.   10.0 278.8   2.0
 09 01 01   1 07   -9.1 0.158 -9.000 -9.000 -999. 151.   39.6 0.03   0.63
1.00   2.86 105.   10.0 278.8   2.0
 09 01 01   1 08 -13.6 0.237 -9.000 -9.000 -999. 276.   88.5 0.03   0.63
1.00   3.86   93.   10.0 278.8   2.0
 09 01 01   1 09   -9.4 0.318 -9.000 -9.000 -999. 430.   311.3 0.03   0.63
0.41   4.86   97.   10.0 278.8   2.0

```
 09 01 01   1 10    4.8  0.296  0.220  0.016   81.  388.   -497.3  0.03   0.63
0.28    4.36  101.   10.0  279.2    2.0
 09 01 01   1 11   11.8  0.301  0.366  0.016  151.  396.   -210.6  0.03   0.63
0.23    4.36   94.   10.0  279.2    2.0
 09 01 01   1 12   15.7  0.335  0.450  0.016  210.  465.   -217.6  0.03   0.63
0.22    4.86   86.   10.0  279.2    2.0
 09 01 01   1 13   16.4  0.291  0.488  0.016  257.  377.   -136.4  0.02   0.63
0.22    4.36  123.   10.0  279.2    2.0
 09 01 01   1 14   13.8  0.334  0.480  0.016  291.  463.   -245.4  0.03   0.63
0.22    4.86  109.   10.0  279.2    2.0
 09 01 01   1 15    8.1  0.202  0.411  0.015  310.  229.    -92.5  0.03   0.63
0.26    2.86  102.   10.0  279.9    2.0
 09 01 01   1 16   -0.4  0.191 -9.000 -9.000 -999.  200.   1603.3  0.03   0.63
0.34    2.86  104.   10.0  279.9    2.0
 09 01 01   1 17   -6.1  0.117 -9.000 -9.000 -999.   97.     23.6  0.03   0.63
0.58    2.36  111.   10.0  279.2    2.0
 09 01 01   1 18  -11.4  0.199 -9.000 -9.000 -999.  213.     62.4  0.03   0.63
1.00    3.36   97.   10.0  278.8    2.0
 09 01 01   1 19   -9.1  0.158 -9.000 -9.000 -999.  152.     39.6  0.03   0.63
1.00    2.86   94.   10.0  278.8    2.0
 09 01 01   1 20   -9.1  0.158 -9.000 -9.000 -999.  151.     39.6  0.03   0.63
1.00    2.86   87.   10.0  278.8    2.0
 09 01 01   1 21   -2.7  0.059 -9.000 -9.000 -999.   41.      6.8  0.03   0.63
1.00    1.76   90.   10.0  279.2    2.0
 09 01 01   1 22   -6.3  0.110 -9.000 -9.000 -999.   88.     19.2  0.03   0.63
1.00    2.36   72.   10.0  279.2    2.0
 09 01 01   1 23  -11.4  0.199 -9.000 -9.000 -999.  213.     62.6  0.03   0.63
1.00    3.36  100.   10.0  279.2    2.0
 09 01 01   1 24  -11.4  0.199 -9.000 -9.000 -999.  213.     62.6  0.03   0.63
1.00    3.36   90.   10.0  279.2    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1  111.    1.76   279.3   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
```

INCLUDING SOURCE(S): L0048843 , L0048844
, L0048845 , L0048846 , L0048847 ,
L0048848 , L0048849 , L0048850 , L0048851 , L0048852
, L0048853 , L0048854 , L0048855 ,
L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,
L0048864 , L0048865 , L0048866 , L0048867 , L0048868
, L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
567539.85	4220159.17	0.05891	567589.85	4220159.17	0.07123
567639.85	4220159.17	0.08682	567539.85	4220209.17	0.07387
567589.85	4220209.17	0.09337	567639.85	4220209.17	0.11611
567539.85	4220259.17	0.07179	567589.85	4220259.17	0.08848
567639.85	4220259.17	0.10549	567689.85	4220259.17	0.13567
567539.85	4220309.17	0.06012	567589.85	4220309.17	0.07132
567639.85	4220309.17	0.08524	567689.85	4220309.17	0.10279
567539.85	4220359.17	0.05039	567589.85	4220359.17	0.05955
567639.85	4220359.17	0.07208	567689.85	4220359.17	0.08602
567739.85	4220359.17	0.11710	567539.85	4220409.17	0.04480
567589.85	4220409.17	0.05376	567639.85	4220409.17	0.06428
567689.85	4220409.17	0.07392	567739.85	4220409.17	0.09222
567539.85	4220459.17	0.04100	567589.85	4220459.17	0.04940
567639.85	4220459.17	0.05728	567689.85	4220459.17	0.06096
567739.85	4220459.17	0.07156	567539.85		

```
4220509.17        0.03461
         567589.85    4220509.17        0.04374                    567639.85
4220509.17        0.04954
         567689.85    4220509.17        0.05004                    567739.85
4220509.17        0.05500
         567539.85    4220559.17        0.03430                    567589.85
4220559.17        0.03848
         567639.85    4220559.17        0.04062                    567689.85
4220559.17        0.04068
         567739.85    4220559.17        0.04416                    567789.85
4220559.17        0.05141
         567539.85    4220609.17        0.03069                    567589.85
4220609.17        0.03215
         567639.85    4220609.17        0.03299                    567689.85
4220609.17        0.03381
         567739.85    4220609.17        0.03768                    567789.85
4220609.17        0.04356
         567040.05    4219808.62        0.00606                    567090.05
4219808.62        0.00624
         567140.05    4219808.62        0.00647                    567190.05
4219808.62        0.00722
         567240.05    4219808.62        0.00803                    567290.05
4219808.62        0.00885
         567340.05    4219808.62        0.00946                    567040.05
4219858.62        0.00713
         567090.05    4219858.62        0.00695                    567140.05
4219858.62        0.00710
         567190.05    4219858.62        0.00782                    567240.05
4219858.62        0.00855
         567290.05    4219858.62        0.00902                    567340.05
4219858.62        0.00909
         567390.05    4219858.62        0.00827                    567040.05
4219908.62        0.00820
         567090.05    4219908.62        0.00863                    567140.05
4219908.62        0.00803
         567190.05    4219908.62        0.00821                    567240.05
4219908.62        0.00895
         567290.05    4219908.62        0.00942                    567340.05
4219908.62        0.00882
         567390.05    4219908.62        0.00763                    567440.05
4219908.62        0.00915
         567490.05    4219908.62        0.01683                    567040.05
4219958.62        0.00872
         567090.05    4219958.62        0.00906                    567140.05
4219958.62        0.00885
         567190.05    4219958.62        0.00813                    567240.05
4219958.62        0.00821
         567290.05    4219958.62        0.00876                    567340.05
```

4219958.62 0.00872
567390.05 4219958.62 0.00843 567440.05
4219958.62 0.01032
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844
, L0048845 , L0048846 , L0048847 ,
L0048848 , L0048849 , L0048850 , L0048851 , L0048852
, L0048853 , L0048854 , L0048855 ,
L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,
L0048864 , L0048865 , L0048866 , L0048867 , L0048868
, L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
567490.05	4219958.62	0.02026	567040.05	4220008.62	0.00961
567090.05	4220008.62	0.00970	567140.05	4220008.62	0.00948
567190.05	4220008.62	0.00875	567240.05	4220008.62	0.00831
567290.05	4220008.62	0.00737	567340.05	4220008.62	0.00739
567390.05	4220008.62	0.00847	567440.05	4220008.62	0.01155
567490.05	4220008.62	0.01813	567540.05	4220008.62	0.03042
567040.05	4220058.62	0.01156	567090.05	4220058.62	0.01189
567140.05	4220058.62	0.01100	567190.05		

```
4220058.62        0.00995
         567240.05    4220058.62        0.00924                    567290.05
4220058.62        0.00864
         567340.05    4220058.62        0.00914                    567390.05
4220058.62        0.01086
         567440.05    4220058.62        0.01573                    567490.05
4220058.62        0.02738
         567540.05    4220058.62        0.03506                    567040.05
4220108.62        0.01367
         567090.05    4220108.62        0.01309                    567140.05
4220108.62        0.01338
         567190.05    4220108.62        0.01266                    567240.05
4220108.62        0.01130
         567290.05    4220108.62        0.01009                    567340.05
4220108.62        0.01092
         567390.05    4220108.62        0.01400                    567440.05
4220108.62        0.02496
         567490.05    4220108.62        0.03664                    567540.05
4220108.62        0.04270
         567040.05    4220158.62        0.01610                    567090.05
4220158.62        0.01658
         567140.05    4220158.62        0.01638                    567190.05
4220158.62        0.01552
         567240.05    4220158.62        0.01450                    567290.05
4220158.62        0.01460
         567340.05    4220158.62        0.01696                    567390.05
4220158.62        0.02353
         567440.05    4220158.62        0.03818                    567490.05
4220158.62        0.04935
         567540.05    4220158.62        0.05873                    567040.05
4220208.62        0.01793
         567090.05    4220208.62        0.01775                    567140.05
4220208.62        0.01806
         567190.05    4220208.62        0.01816                    567240.05
4220208.62        0.01688
         567290.05    4220208.62        0.01835                    567340.05
4220208.62        0.02474
         567390.05    4220208.62        0.03924                    567440.05
4220208.62        0.04938
         567490.05    4220208.62        0.06000                    567540.05
4220208.62        0.07386
         567040.05    4220258.62        0.01730                    567090.05
4220258.62        0.01786
         567140.05    4220258.62        0.01741                    567190.05
4220258.62        0.01615
         567240.05    4220258.62        0.01705                    567290.05
4220258.62        0.02234
         567340.05    4220258.62        0.03330                    567390.05
```

4220258.62   0.04237
         567440.05   4220258.62   0.05021   567490.05
4220258.62   0.05956
         567540.05   4220258.62   0.07194   567040.05
4220308.62   0.01634
         567090.05   4220308.62   0.01572   567140.05
4220308.62   0.01444
         567190.05   4220308.62   0.01450   567240.05
4220308.62   0.02024
         567290.05   4220308.62   0.02700   567340.05
4220308.62   0.03321
         567390.05   4220308.62   0.03855   567440.05
4220308.62   0.04430
         567490.05   4220308.62   0.05140   567540.05
4220308.62   0.06029
         567040.05   4220358.62   0.01468   567090.05
4220358.62   0.01584

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   L0048843   , L0048844
, L0048845   , L0048846   , L0048847   ,
                  L0048848   , L0048849   , L0048850   , L0048851   , L0048852
, L0048853   , L0048854   , L0048855   ,
                  L0048856   , L0048857   , L0048858   , L0048859   , L0048860
, L0048861   , L0048862   , L0048863   ,
                  L0048864   , L0048865   , L0048866   , L0048867   , L0048868
, L0048869   , L0048870   , . . .   ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                 ** CONC OF PM_10   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         567140.05   4220358.62   0.01626   567190.05

```
4220358.62        0.01829
         567240.05    4220358.62        0.02249                    567290.05
4220358.62        0.02614
         567340.05    4220358.62        0.02939                    567390.05
4220358.62        0.03343
         567440.05    4220358.62        0.03785                    567490.05
4220358.62        0.04335
         567540.05    4220358.62        0.05051                    567040.05
4220408.62        0.01309
         567090.05    4220408.62        0.01537                    567140.05
4220408.62        0.01659
         567190.05    4220408.62        0.01771                    567240.05
4220408.62        0.02046
         567290.05    4220408.62        0.02260                    567340.05
4220408.62        0.02514
         567390.05    4220408.62        0.02813                    567440.05
4220408.62        0.03172
         567490.05    4220408.62        0.03791                    567540.05
4220408.62        0.04487
         567040.05    4220458.62        0.01298                    567090.05
4220458.62        0.01453
         567140.05    4220458.62        0.01509                    567190.05
4220458.62        0.01606
         567240.05    4220458.62        0.01728                    567290.05
4220458.62        0.01901
         567340.05    4220458.62        0.02111                    567390.05
4220458.62        0.02513
         567440.05    4220458.62        0.02993                    567490.05
4220458.62        0.03484
         567540.05    4220458.62        0.04108                    567040.05
4220508.62        0.01262
         567090.05    4220508.62        0.01381                    567140.05
4220508.62        0.01460
         567190.05    4220508.62        0.01482                    567240.05
4220508.62        0.01509
         567290.05    4220508.62        0.01710                    567340.05
4220508.62        0.01943
         567390.05    4220508.62        0.02462                    567440.05
4220508.62        0.02810
         567490.05    4220508.62        0.03015                    567540.05
4220508.62        0.03465
         567040.05    4220558.62        0.01213                    567090.05
4220558.62        0.01311
         567140.05    4220558.62        0.01416                    567190.05
4220558.62        0.01515
         567240.05    4220558.62        0.01596                    567290.05
4220558.62        0.01702
         567340.05    4220558.62        0.01807                    567390.05
```

4220558.62 0.02327
567440.05 4220558.62 0.02617 567490.05
4220558.62 0.02828
567540.05 4220558.62 0.03435 567040.05
4220608.62 0.01155
567090.05 4220608.62 0.01253 567140.05
4220608.62 0.01361
567190.05 4220608.62 0.01479 567240.05
4220608.62 0.01493
567290.05 4220608.62 0.01546 567340.05
4220608.62 0.01968
567390.05 4220608.62 0.02262 567440.05
4220608.62 0.02533
567490.05 4220608.62 0.02794 567540.05
4220608.62 0.03075
567040.05 4220658.62 0.01119 567090.05
4220658.62 0.01216
567140.05 4220658.62 0.01313 567190.05
4220658.62 0.01401
567240.05 4220658.62 0.01478 567290.05
4220658.62 0.01616
567340.05 4220658.62 0.01879 567390.05
4220658.62 0.02120
567440.05 4220658.62 0.02325 567490.05
4220658.62 0.02481
567540.05 4220658.62 0.02665 567024.60
4219459.23 0.00375
567074.60 4219459.23 0.00479 567124.60
4219459.23 0.00570
567174.60 4219459.23 0.00628 567224.60
4219459.23 0.00692
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 52
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844
, L0048845 , L0048846 , L0048847 ,
L0048848 , L0048849 , L0048850 , L0048851 , L0048852
, L0048853 , L0048854 , L0048855 ,
L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,

L0048864 , L0048865 , L0048866 , L0048867 , L0048868
, L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
567274.60	4219459.23	0.00763	567324.60	4219459.23	0.00842
567374.60	4219459.23	0.00926	567424.60	4219459.23	0.01025
567024.60	4219509.23	0.00331	567074.60	4219509.23	0.00413
567124.60	4219509.23	0.00536	567174.60	4219509.23	0.00638
567224.60	4219509.23	0.00708	567274.60	4219509.23	0.00786
567324.60	4219509.23	0.00876	567374.60	4219509.23	0.00977
567424.60	4219509.23	0.01095	567024.60	4219559.23	0.00368
567074.60	4219559.23	0.00407	567124.60	4219559.23	0.00518
567174.60	4219559.23	0.00632	567224.60	4219559.23	0.00721
567274.60	4219559.23	0.00807	567324.60	4219559.23	0.00910
567374.60	4219559.23	0.01033	567424.60	4219559.23	0.01217
567024.60	4219609.23	0.00462	567074.60	4219609.23	0.00463
567124.60	4219609.23	0.00541	567174.60	4219609.23	0.00633
567224.60	4219609.23	0.00735	567274.60	4219609.23	0.00827
567324.60	4219609.23	0.00941	567374.60	4219609.23	0.01089
567424.60	4219609.23	0.01320	567024.60	4219659.23	0.00519
567074.60	4219659.23	0.00508	567124.60	4219659.23	0.00564
567174.60	4219659.23	0.00640	567224.60		

```
4219659.23        0.00750
         567274.60    4219659.23        0.00846                    567324.60
4219659.23        0.00966
         567374.60    4219659.23        0.01143                    567424.60
4219659.23        0.01455
         567024.60    4219709.23        0.00556                    567074.60
4219709.23        0.00534
         567124.60    4219709.23        0.00580                    567174.60
4219709.23        0.00666
         567224.60    4219709.23        0.00748                    567274.60
4219709.23        0.00862
         567324.60    4219709.23        0.01000                    567374.60
4219709.23        0.01208
         567424.60    4219709.23        0.01606                    567024.60
4219759.23        0.00564
         567074.60    4219759.23        0.00564                    567124.60
4219759.23        0.00616
         567174.60    4219759.23        0.00718                    567224.60
4219759.23        0.00761
         567274.60    4219759.23        0.00858                    567324.60
4219759.23        0.00990
         567374.60    4219759.23        0.01269                    567024.60
4219809.23        0.00632
         567074.60    4219809.23        0.00618                    567124.60
4219809.23        0.00642
         567174.60    4219809.23        0.00693                    567224.60
4219809.23        0.00779
         567274.60    4219809.23        0.00863                    567324.60
4219809.23        0.00926
         567374.60    4219809.23        0.01021                    567524.55
4219458.98        0.01342
         567574.55    4219458.98        0.01567                    567624.55
4219458.98        0.01812
         567674.55    4219458.98        0.01998                    567724.55
4219458.98        0.01537
         567774.55    4219458.98        0.01534                    567824.55
4219458.98        0.01740
         567874.55    4219458.98        0.01509                    567924.55
4219458.98        0.01511
         567524.55    4219508.98        0.01390                    567574.55
4219508.98        0.01630
         567624.55    4219508.98        0.01898                    567674.55
4219508.98        0.02104
         567724.55    4219508.98        0.01665                    567774.55
4219508.98        0.01677
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   L0048843   , L0048844 , L0048845   , L0048846   , L0048847   ,
L0048848   , L0048849   , L0048850   , L0048851   , L0048852 , L0048853   , L0048854   , L0048855   ,
L0048856   , L0048857   , L0048858   , L0048859   , L0048860 , L0048861   , L0048862   , L0048863   ,
L0048864   , L0048865   , L0048866   , L0048867   , L0048868 , L0048869   , L0048870   , . . .   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
567824.55	4219508.98	0.02169	567874.55	4219508.98	0.01781
567924.55	4219508.98	0.01673	567524.55	4219558.98	0.01471
567574.55	4219558.98	0.01660	567624.55	4219558.98	0.01910
567674.55	4219558.98	0.01965	567724.55	4219558.98	0.01619
567774.55	4219558.98	0.02110	567824.55	4219558.98	0.03213
567874.55	4219558.98	0.02388	567924.55	4219558.98	0.01926
567524.55	4219608.98	0.01508	567574.55	4219608.98	0.01485
567624.55	4219608.98	0.01654	567674.55	4219608.98	0.01582
567724.55	4219608.98	0.01896	567774.55	4219608.98	0.03263
567824.55	4219608.98	0.04148	567874.55	4219608.98	0.03892
567924.55	4219608.98	0.03041	567524.55		

```
4219658.98        0.01671
         567574.55    4219658.98        0.01540                    567624.55
4219658.98        0.01544
         567674.55    4219658.98        0.01556                    567724.55
4219658.98        0.02532
         567774.55    4219658.98        0.03943                    567824.55
4219658.98        0.04659
         567874.55    4219658.98        0.04767                    567924.55
4219658.98        0.04484
         567624.55    4219708.98        0.02155                    567674.55
4219708.98        0.02411
         567724.55    4219708.98        0.03214                    567774.55
4219708.98        0.04391
         567824.55    4219708.98        0.05333                    567874.55
4219708.98        0.05647
         567924.55    4219708.98        0.05330                    567674.55
4219758.98        0.03227
         567724.55    4219758.98        0.03877                    567774.55
4219758.98        0.04942
         567824.55    4219758.98        0.06118                    567874.55
4219758.98        0.06729
         567924.55    4219758.98        0.06331                    567924.57
4219458.79        0.01511
         567974.57    4219458.79        0.01732                    568024.57
4219458.79        0.01339
         568074.57    4219458.79        0.01157                    567924.57
4219508.79        0.01672
         567974.57    4219508.79        0.01818                    568024.57
4219508.79        0.01810
         568074.57    4219508.79        0.01685                    567924.57
4219558.79        0.01924
         567974.57    4219558.79        0.01905                    568024.57
4219558.79        0.02002
         568074.57    4219558.79        0.02404                    567924.57
4219608.79        0.03033
         567974.57    4219608.79        0.02779                    568024.57
4219608.79        0.02711
         568074.57    4219608.79        0.02831                    567924.57
4219658.79        0.04480
         567974.57    4219658.79        0.04097                    568024.57
4219658.79        0.03615
         568074.57    4219658.79        0.03162                    567924.57
4219708.79        0.05326
         567974.57    4219708.79        0.04811                    568024.57
4219708.79        0.04110
         568074.57    4219708.79        0.03559                    568124.57
4219708.79        0.03042
         567924.57    4219758.79        0.06327                    567974.57
```

4219758.79   0.05588
         568024.57   4219758.79   0.04758   568074.57
4219758.79   0.04120
         568124.57   4219758.79   0.03180   567924.57
4219808.79   0.07629
         567974.57   4219808.79   0.06647   568024.57
4219808.79   0.05753
         568074.57   4219808.79   0.04726   568124.57
4219808.79   0.03380
         567924.57   4219858.79   0.09418   567974.57
4219858.79   0.08116
 *** AERMOD - VERSION 18081 ***   ***
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01/16/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   14:46:01

                                 PAGE 54
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   L0048843   , L0048844
, L0048845   , L0048846   , L0048847   ,
                   L0048848   , L0048849   , L0048850   , L0048851   , L0048852
, L0048853   , L0048854   , L0048855   ,
                   L0048856   , L0048857   , L0048858   , L0048859   , L0048860
, L0048861   , L0048862   , L0048863   ,
                   L0048864   , L0048865   , L0048866   , L0048867   , L0048868
, L0048869   , L0048870   , . . .   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         568024.57   4219858.79   0.07015   568074.57
4219858.79   0.05412
         568124.57   4219858.79   0.03991   567924.57
4219908.79   0.12285
         567974.57   4219908.79   0.10484   568024.57
4219908.79   0.08576
         568074.57   4219908.79   0.06341   568124.57

```
4219908.79        0.05098
         567924.57    4219958.79        0.17281                    567974.57
4219958.79        0.14698
         568024.57    4219958.79        0.10577                    568074.57
4219958.79        0.07877
         568124.57    4219958.79        0.06537                    567924.57
4220008.79        0.26246
         567974.57    4220008.79        0.20729                    568024.57
4220008.79        0.13318
         568074.57    4220008.79        0.10155                    568124.57
4220008.79        0.08213
         567924.57    4220058.79        0.44496                    567974.57
4220058.79        0.31184
         568024.57    4220058.79        0.18542                    568074.57
4220058.79        0.13420
         568124.57    4220058.79        0.11613                    567924.57
4220108.79        0.89892
         567974.57    4220108.79        0.53205                    568024.57
4220108.79        0.33392
         568074.57    4220108.79        0.23619                    568124.57
4220108.79        0.16914
         567924.57    4220158.79        2.71971                    567974.57
4220158.79        1.43849
         568024.57    4220158.79        0.68071                    568074.57
4220158.79        0.39345
         568124.57    4220158.79        0.25945                    568124.99
4219708.95        0.03038
         568174.99    4219708.95        0.02346                    568224.99
4219708.95        0.01909
         568274.99    4219708.95        0.01788                    568324.99
4219708.95        0.01614
         568374.99    4219708.95        0.01574                    568424.99
4219708.95        0.01416
         568474.99    4219708.95        0.01273                    568524.99
4219708.95        0.01170
         568124.99    4219758.95        0.03169                    568174.99
4219758.95        0.02254
         568224.99    4219758.95        0.02009                    568274.99
4219758.95        0.01684
         568324.99    4219758.95        0.01657                    568374.99
4219758.95        0.01562
         568424.99    4219758.95        0.01477                    568474.99
4219758.95        0.01461
         568524.99    4219758.95        0.01463                    568124.99
4219808.95        0.03370
         568174.99    4219808.95        0.02709                    568224.99
4219808.95        0.02342
         568274.99    4219808.95        0.01930                    568324.99
```

4219808.95   0.01721
         568374.99   4219808.95   0.01671   568424.99
4219808.95   0.01657
         568474.99   4219808.95   0.01560   568524.99
4219808.95   0.01783
         568124.99   4219858.95   0.03988   568174.99
4219858.95   0.03564
         568224.99   4219858.95   0.03013   568274.99
4219858.95   0.02253
         568324.99   4219858.95   0.01909   568374.99
4219858.95   0.02023
         568424.99   4219858.95   0.01886   568474.99
4219858.95   0.01686
         568524.99   4219858.95   0.01966   568124.99
4219908.95   0.05097
         568174.99   4219908.95   0.04288   568224.99
4219908.95   0.03325
         568274.99   4219908.95   0.02628   568324.99
4219908.95   0.02344
         568374.99   4219908.95   0.02431   568424.99
4219908.95   0.02404
         568474.99   4219908.95   0.02381   568524.99
4219908.95   0.02289
         568124.99   4219958.95   0.06533   568174.99
4219958.95   0.05517

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   L0048843   , L0048844
, L0048845   , L0048846   , L0048847   ,
                  L0048848   , L0048849   , L0048850   , L0048851   , L0048852
, L0048853   , L0048854   , L0048855   ,
                  L0048856   , L0048857   , L0048858   , L0048859   , L0048860
, L0048861   , L0048862   , L0048863   ,
                  L0048864   , L0048865   , L0048866   , L0048867   , L0048868
, L0048869   , L0048870   , . . .   ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
568224.99	4219958.95	0.04577	568274.99	4219958.95	0.03809
568324.99	4219958.95	0.03172	568374.99	4219958.95	0.03040
568424.99	4219958.95	0.03078	568474.99	4219958.95	0.02842
568524.99	4219958.95	0.02512	568124.99	4220008.95	0.08204
568174.99	4220008.95	0.07484	568224.99	4220008.95	0.06400
568274.99	4220008.95	0.05304	568324.99	4220008.95	0.04431
568374.99	4220008.95	0.03869	568424.99	4220008.95	0.03648
568474.99	4220008.95	0.03197	568524.99	4220008.95	0.02541
568124.99	4220058.95	0.11620	568174.99	4220058.95	0.09881
568224.99	4220058.95	0.07937	568274.99	4220058.95	0.06527
568324.99	4220058.95	0.05623	568374.99	4220058.95	0.04911
568424.99	4220058.95	0.04196	568474.99	4220058.95	0.03375
568524.99	4220058.95	0.02773	568124.99	4220108.95	0.16890
568174.99	4220108.95	0.12917	568224.99	4220108.95	0.10256
568274.99	4220108.95	0.08388	568324.99	4220108.95	0.07024
568374.99	4220108.95	0.05886	568424.99	4220108.95	0.04695
568474.99	4220108.95	0.03870	568524.99	4220108.95	0.03559
568124.99	4220158.95	0.25902	568174.99	4220158.95	0.18430
568224.99	4220158.95	0.13858	568274.99	4220158.95	0.10905
568324.99	4220158.95	0.08805	568374.99	4220158.95	0.07213
568424.99	4220158.95	0.06083	568474.99		

4220158.95   0.05215
         568524.99   4220158.95   0.04501   568124.99
4220208.95   0.36811
         568174.99   4220208.95   0.24284   568224.99
4220208.95   0.17479
         568274.99   4220208.95   0.13196   568324.99
4220208.95   0.10397
         568374.99   4220208.95   0.08408   568424.99
4220208.95   0.06973
         568474.99   4220208.95   0.05943   568524.99
4220208.95   0.05107
         568124.99   4220258.95   0.34786   568174.99
4220258.95   0.24670
         568224.99   4220258.95   0.17478   568274.99
4220258.95   0.13750
         568324.99   4220258.95   0.10985   568374.99
4220258.95   0.08923
         568424.99   4220258.95   0.07413   568474.99
4220258.95   0.06256
         568524.99   4220258.95   0.05362   568124.99
4220308.95   0.26252
         568174.99   4220308.95   0.19779   568224.99
4220308.95   0.15512
         568274.99   4220308.95   0.12675   568324.99
4220308.95   0.10346
         568374.99   4220308.95   0.08576   568424.99
4220308.95   0.07249
         568474.99   4220308.95   0.06183   568524.99
4220308.95   0.05339
         568124.99   4220358.95   0.20825   568174.99
4220358.95   0.16141
         568224.99   4220358.95   0.12976   568274.99
4220358.95   0.10822
         568324.99   4220358.95   0.09187   568374.99
4220358.95   0.07802
         568424.99   4220358.95   0.06646   568474.99
4220358.95   0.05778
         568524.99   4220358.95   0.05087   568124.99
4220408.95   0.16976

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0048843 , L0048844 , L0048845 , L0048846 , L0048847 , L0048848 , L0048849 , L0048850 , L0048851 , L0048852 , L0048853 , L0048854 , L0048855 , L0048856 , L0048857 , L0048858 , L0048859 , L0048860 , L0048861 , L0048862 , L0048863 , L0048864 , L0048865 , L0048866 , L0048867 , L0048868 , L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
568174.99	4220408.95	0.13380	568224.99	4220408.95	0.10951
568274.99	4220408.95	0.09162	568324.99	4220408.95	0.07772
568374.99	4220408.95	0.06734	568424.99	4220408.95	0.05959
568474.99	4220408.95	0.05303	568524.99	4220408.95	0.04725
568124.99	4220458.95	0.14259	568174.99	4220458.95	0.11264
568224.99	4220458.95	0.09246	568274.99	4220458.95	0.07883
568324.99	4220458.95	0.06852	568374.99	4220458.95	0.05985
568424.99	4220458.95	0.05294	568474.99	4220458.95	0.04747
568524.99	4220458.95	0.04294	568124.99	4220508.95	0.12092
568174.99	4220508.95	0.09864	568224.99	4220508.95	0.08183
568274.99	4220508.95	0.06953	568324.99	4220508.95	0.06062
568374.99	4220508.95	0.05386	568424.99	4220508.95	0.04798
568474.99	4220508.95	0.04284	568524.99	4220508.95	0.03861
568124.99	4220558.95	0.10406	568174.99		

4220558.95 0.08755
568224.99 4220558.95 0.07343 568274.99
4220558.95 0.06218
568324.99 4220558.95 0.05425 568374.99
4220558.95 0.04813
568424.99 4220558.95 0.04337 568474.99
4220558.95 0.03928
568524.99 4220558.95 0.03545 568124.99
4220608.95 0.08856
568174.99 4220608.95 0.07687 568224.99
4220608.95 0.06601
568274.99 4220608.95 0.05627 568324.99
4220608.95 0.04899
568374.99 4220608.95 0.04335 567040.21
4220658.17 0.01119
567090.21 4220658.17 0.01216 567140.21
4220658.17 0.01314
↑ *** AERMOD - VERSION 18081 *** ***
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01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 57
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844
, L0048845 , L0048846 , L0048847 ,
L0048848 , L0048849 , L0048850 , L0048851 , L0048852
, L0048853 , L0048854 , L0048855 ,
L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,
L0048864 , L0048865 , L0048866 , L0048867 , L0048868
, L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M)
Y-COORD (M) CONC (YYMMDDHH)
- -
- -
567539.85 4220159.17 5.07741 (11011605) 567589.85

```
4220159.17        5.99876  (10020203)
        567639.85   4220159.17        7.10990  (10020124)                567539.85
4220209.17        5.11272  (11011708)
        567589.85   4220209.17        6.12221  (10012320)                567639.85
4220209.17        7.25780  (11011708)
        567539.85   4220259.17        5.09182  (11011604)                567589.85
4220259.17        6.20423  (11011604)
        567639.85   4220259.17        7.08250  (10120420)                567689.85
4220259.17        8.75970  (10020504)
        567539.85   4220309.17        4.92803  (10022822)                567589.85
4220309.17        5.86593  (12120323)
        567639.85   4220309.17        6.83988  (09021308)                567689.85
4220309.17        7.88560  (10011420)
        567539.85   4220359.17        4.76202  (09012306)                567589.85
4220359.17        5.42867  (12120220)
        567639.85   4220359.17        6.39463  (10020524)                567689.85
4220359.17        7.47090  (09121818)
        567739.85   4220359.17        9.78729  (12120521)                567539.85
4220409.17        4.47062  (10020524)
        567589.85   4220409.17        5.29502  (12022808)                567639.85
4220409.17        6.16904  (12120505)
        567689.85   4220409.17        6.65522  (12120521)                567739.85
4220409.17        8.30684  (09012401)
        567539.85   4220459.17        4.46868  (09121818)                567589.85
4220459.17        4.96758  (09010205)
        567639.85   4220459.17        5.48065  (11012518)                567689.85
4220459.17        5.97109  (09012401)
        567739.85   4220459.17        6.94312  (13012406)                567539.85
4220509.17        5.07288  (09122308)
        567589.85   4220509.17        4.56466  (09020522)                567639.85
4220509.17        5.12097  (09012401)
        567689.85   4220509.17        5.25592  (11122818)                567739.85
4220509.17        5.91167  (10020219)
        567539.85   4220559.17        3.80145  (09020522)                567589.85
4220559.17        4.17367  (09012401)
        567639.85   4220559.17        4.41217  (13020307)                567689.85
4220559.17        4.58996  (10010107)
        567739.85   4220559.17        4.90797  (12012320)                567789.85
4220559.17        5.51930  (11011722)
        567539.85   4220609.17        3.46924  (09012401)                567589.85
4220609.17        3.60816  (13020307)
        567639.85   4220609.17        3.86793  (09123123)                567689.85
4220609.17        4.07524  (10122624)
        567739.85   4220609.17        4.29587  (12021620)                567789.85
4220609.17        4.85628  (12012524)
        567040.05   4219808.62        2.27781  (10011121)                567090.05
4219808.62        2.41821  (10021601)
        567140.05   4219808.62        2.51385  (10120124)                567190.05
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4219808.62 2.60087 (11010720)
567240.05 4219808.62 2.61458 (10021204) 567290.05
4219808.62 2.64751 (10121306)
567340.05 4219808.62 2.83881 (10020108) 567040.05
4219858.62 2.11857 (10012808)
567090.05 4219858.62 2.50637 (09020508) 567140.05
4219858.62 2.63748 (10010206)
567190.05 4219858.62 2.78439 (10021601) 567240.05
4219858.62 2.89258 (10120124)
567290.05 4219858.62 3.13946 (12020522) 567340.05
4219858.62 3.40173 (11020706)
567390.05 4219858.62 3.53130 (09122803) 567040.05
4219908.62 1.74395 (13012922)
567090.05 4219908.62 2.02253 (11122708) 567140.05
4219908.62 2.67302 (10010922)
567190.05 4219908.62 2.86553 (09020508) 567240.05
4219908.62 3.11879 (10010206)
567290.05 4219908.62 3.31071 (10011121) 567340.05
4219908.62 3.47017 (10120124)
567390.05 4219908.62 3.43283 (12020522) 567440.05
4219908.62 3.81731 (11020706)
567490.05 4219908.62 3.89393 (10020108) 567040.05
4219958.62 1.97176 (09120324)
567090.05 4219958.62 2.17143 (09011605) 567140.05
4219958.62 2.42608 (13012922)
567190.05 4219958.62 2.98394 (13012922) 567240.05
4219958.62 3.12302 (13122818)
567290.05 4219958.62 3.25916 (10012808) 567340.05
4219958.62 3.30531 (09020508)
567390.05 4219958.62 3.30830 (10011121) 567440.05
4219958.62 3.89597 (10120124)
♠ *** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844
, L0048845 , L0048846 , L0048847 ,
L0048848 , L0048849 , L0048850 , L0048851 , L0048852
, L0048853 , L0048854 , L0048855 ,
L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,

L0048864 , L0048865 , L0048866 , L0048867 , L0048868 , L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
567490.05	4219958.62	4.13656	(10021204)	567040.05	4220008.62	2.14142	(11010721)
567090.05	4220008.62	2.48389	(09020407)	567140.05	4220008.62	2.82808	(12020119)
567190.05	4220008.62	2.94343	(12020819)	567240.05	4220008.62	2.99370	(12020819)
567290.05	4220008.62	2.81671	(09011605)	567340.05	4220008.62	3.05211	(13012922)
567390.05	4220008.62	3.23868	(10010922)	567440.05	4220008.62	3.92438	(10020521)
567490.05	4220008.62	5.00925	(10010206)	567540.05	4220008.62	4.21463	(12120406)
567040.05	4220058.62	1.85608	(09022020)	567090.05	4220058.62	2.15508	(12011501)
567140.05	4220058.62	2.79935	(12011501)	567190.05	4220058.62	3.03498	(11011602)
567240.05	4220058.62	2.94783	(11010721)	567290.05	4220058.62	2.79945	(11010721)
567340.05	4220058.62	3.03400	(12020119)	567390.05	4220058.62	3.53203	(12020819)
567440.05	4220058.62	4.58371	(09011605)	567490.05	4220058.62	4.36814	(13012922)
567540.05	4220058.62	4.68785	(10010922)	567040.05	4220108.62	2.03546	(11011605)
567090.05	4220108.62	2.64454	(11011605)	567140.05	4220108.62	2.88339	(09011019)
567190.05	4220108.62	3.10561	(09011019)	567240.05	4220108.62	3.02611	(09011520)
567290.05	4220108.62	2.89804	(09011520)	567340.05	4220108.62	3.11579	(11122003)
567390.05	4220108.62	3.65919	(12011501)	567440.05	4220108.62	4.82289	(11011602)
567490.05	4220108.62	4.20357	(11010721)	567540.05	4220108.62	4.82574	(09022724)
567040.05	4220158.62	2.21063	(11020623)	567090.05			

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4220158.62        2.65645  (11020623)
        567140.05   4220158.62        2.96693  (11020623)                567190.05
4220158.62        3.01221  (11020623)
        567240.05   4220158.62        2.87234  (10013119)                567290.05
4220158.62        2.95731  (10013119)
        567340.05   4220158.62        3.30608  (10013119)                567390.05
4220158.62        4.16319  (10022623)
        567440.05   4220158.62        4.52320  (11120519)                567490.05
4220158.62        4.32817  (09011203)
        567540.05   4220158.62        5.07263  (11011605)                567040.05
4220208.62        2.12423  (09121517)
        567090.05   4220208.62        2.68881  (09121517)                567140.05
4220208.62        2.89671  (09121517)
        567190.05   4220208.62        3.00567  (12010318)                567240.05
4220208.62        2.85374  (12010318)
        567290.05   4220208.62        3.01409  (12010318)                567340.05
4220208.62        3.80092  (12010318)
        567390.05   4220208.62        4.24748  (11011708)                567440.05
4220208.62        3.89554  (11011708)
        567490.05   4220208.62        4.34634  (11011708)                567540.05
4220208.62        5.11456  (11011708)
        567040.05   4220258.62        2.42375  (10021124)                567090.05
4220258.62        2.76846  (10021124)
        567140.05   4220258.62        2.97103  (10021124)                567190.05
4220258.62        2.85114  (10021124)
        567240.05   4220258.62        2.90788  (10020202)                567290.05
4220258.62        3.58038  (10020202)
        567340.05   4220258.62        3.91391  (10020202)                567390.05
4220258.62        3.23359  (12122219)
        567440.05   4220258.62        3.77646  (10020908)                567490.05
4220258.62        4.39560  (10020908)
        567540.05   4220258.62        5.07283  (11011604)                567040.05
4220308.62        2.47691  (10021805)
        567090.05   4220308.62        2.77210  (10021805)                567140.05
4220308.62        2.67178  (09120421)
        567190.05   4220308.62        2.73470  (09120421)                567240.05
4220308.62        3.39052  (10120422)
        567290.05   4220308.62        3.65253  (10120422)                567340.05
4220308.62        3.23497  (10120420)
        567390.05   4220308.62        3.19273  (10120420)                567440.05
4220308.62        3.76300  (10020504)
        567490.05   4220308.62        4.14639  (13122318)                567540.05
4220308.62        4.93333  (10022822)
        567040.05   4220358.62        2.57615  (10120420)                567090.05
4220358.62        2.70371  (10120420)
 *** AERMOD - VERSION  18081 ***   ***
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01/16/19
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   L0048843   , L0048844 , L0048845   , L0048846   , L0048847   ,
L0048848   , L0048849   , L0048850   , L0048851   , L0048852 , L0048853   , L0048854   , L0048855   ,
L0048856   , L0048857   , L0048858   , L0048859   , L0048860 , L0048861   , L0048862   , L0048863   ,
L0048864   , L0048865   , L0048866   , L0048867   , L0048868 , L0048869   , L0048870   , . . .   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
567140.05	4220358.62	2.94008	(09011519)	567190.05	4220358.62	3.17537	(10020504)
567240.05	4220358.62	3.13779	(10020504)	567290.05	4220358.62	2.86621	(12012319)
567340.05	4220358.62	2.89805	(10022822)	567390.05	4220358.62	3.19297	(09010606)
567440.05	4220358.62	3.59107	(12120323)	567490.05	4220358.62	4.05950	(09010418)
567540.05	4220358.62	4.77784	(09012306)	567040.05	4220408.62	2.52167	(13120318)
567090.05	4220408.62	2.57644	(12012319)	567140.05	4220408.62	2.71883	(12012319)
567190.05	4220408.62	2.97118	(11011419)	567240.05	4220408.62	2.94785	(12120323)
567290.05	4220408.62	3.08774	(12120323)	567340.05	4220408.62	3.31853	(09010418)
567390.05	4220408.62	3.65304	(09012306)	567440.05	4220408.62	3.88886	(12120720)
567490.05	4220408.62	3.83855	(12010806)	567540.05	4220408.62	4.48429	(10020524)
567040.05	4220458.62	2.40593	(09010606)	567090.05			

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4220458.62        2.36594  (12120323)
        567140.05   4220458.62        2.67022  (11020219)                567190.05
4220458.62        2.90863  (09010418)
        567240.05   4220458.62        3.17634  (13012304)                567290.05
4220458.62        3.34984  (09012306)
        567340.05   4220458.62        3.51219  (13122119)                567390.05
4220458.62        3.77136  (09011419)
        567440.05   4220458.62        3.59481  (10020524)                567490.05
4220458.62        3.87468  (12022808)
        567540.05   4220458.62        4.47478  (09121818)                567040.05
4220508.62        1.98243  (09010418)
        567090.05   4220508.62        1.83671  (09021308)                567140.05
4220508.62        2.27525  (09012306)
        567190.05   4220508.62        2.77296  (12120720)                567240.05
4220508.62        3.13843  (13122119)
        567290.05   4220508.62        3.38955  (09011419)                567340.05
4220508.62        3.72417  (10020524)
        567390.05   4220508.62        3.42507  (12022808)                567440.05
4220508.62        3.54982  (10010219)
        567490.05   4220508.62        4.83557  (12120505)                567540.05
4220508.62        5.09478  (09122308)
        567040.05   4220558.62        1.54829  (12120319)                567090.05
4220558.62        1.65099  (10011420)
        567140.05   4220558.62        1.76652  (12120220)                567190.05
4220558.62        2.34663  (10013123)
        567240.05   4220558.62        3.04039  (10020524)                567290.05
4220558.62        3.29963  (13021419)
        567340.05   4220558.62        3.69382  (12120404)                567390.05
4220558.62        3.23543  (12012919)
        567440.05   4220558.62        3.77842  (09010205)                567490.05
4220558.62        4.54730  (12120521)
        567540.05   4220558.62        3.80414  (09020522)                567040.05
4220608.62        1.49136  (12120220)
        567090.05   4220608.62        1.62105  (10013123)                567140.05
4220608.62        1.74438  (10020524)
        567190.05   4220608.62        2.30026  (13021419)                567240.05
4220608.62        3.03792  (11021019)
        567290.05   4220608.62        3.28324  (10010219)                567340.05
4220608.62        3.02713  (12120505)
        567390.05   4220608.62        2.63018  (09010205)                567440.05
4220608.62        2.93130  (12120521)
        567490.05   4220608.62        3.21956  (09020522)                567540.05
4220608.62        3.47134  (09012401)
        567040.05   4220658.62        1.48647  (10020524)                567090.05
4220658.62        1.54579  (11122317)
        567140.05   4220658.62        1.75404  (12022808)                567190.05
4220658.62        2.30176  (12120404)
        567240.05   4220658.62        2.73688  (12012919)                567290.05
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4220658.62 3.04141 (13022722)
567340.05 4220658.62 2.89927 (09122308) 567390.05
4220658.62 2.60858 (12120521)
567440.05 4220658.62 2.74067 (09020522) 567490.05
4220658.62 2.90945 (09012401)
567540.05 4220658.62 3.06648 (10021622) 567024.60
4219459.23 1.61596 (13122121)
567074.60 4219459.23 1.37326 (10011124) 567124.60
4219459.23 1.18317 (13122224)
567174.60 4219459.23 1.23236 (10010704) 567224.60
4219459.23 1.31949 (13010908)
↑ *** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 60
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844
, L0048845 , L0048846 , L0048847 ,
L0048848 , L0048849 , L0048850 , L0048851 , L0048852
, L0048853 , L0048854 , L0048855 ,
L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,
L0048864 , L0048865 , L0048866 , L0048867 , L0048868
, L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M)
Y-COORD (M) CONC (YYMMDDHH)
- -
- -
567274.60 4219459.23 1.40539 (09020622) 567324.60
4219459.23 1.44432 (13012305)
567374.60 4219459.23 1.46472 (13011307) 567424.60
4219459.23 1.55175 (11121807)
567024.60 4219509.23 1.82720 (10011002) 567074.60
4219509.23 1.74339 (13122121)
567124.60 4219509.23 1.45318 (10011124) 567174.60

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4219509.23        1.30698  (13122224)
        567224.60   4219509.23        1.34898  (10010704)                567274.60
4219509.23        1.44962  (13010908)
        567324.60   4219509.23        1.53587  (09020622)                567374.60
4219509.23        1.62094  (13012305)
        567424.60   4219509.23        1.66366  (10022301)                567024.60
4219559.23        1.83716  (10121002)
        567074.60   4219559.23        1.85043  (10011002)                567124.60
4219559.23        1.64223  (10020824)
        567174.60   4219559.23        1.43197  (13010823)                567224.60
4219559.23        1.44671  (13122224)
        567274.60   4219559.23        1.48554  (10010704)                567324.60
4219559.23        1.60293  (13010908)
        567374.60   4219559.23        1.70134  (11012508)                567424.60
4219559.23        1.79786  (13012305)
        567024.60   4219609.23        1.40892  (09122803)                567074.60
4219609.23        1.74333  (10121002)
        567124.60   4219609.23        1.59098  (13120920)                567174.60
4219609.23        1.59476  (10020824)
        567224.60   4219609.23        1.52354  (13120319)                567274.60
4219609.23        1.60622  (13122224)
        567324.60   4219609.23        1.64924  (10010704)                567374.60
4219609.23        1.78523  (13010908)
        567424.60   4219609.23        1.91435  (11012508)                567024.60
4219659.23        1.54061  (10121306)
        567074.60   4219659.23        1.73452  (09122803)                567124.60
4219659.23        1.69414  (10020108)
        567174.60   4219659.23        1.71695  (10121002)                567224.60
4219659.23        1.62229  (10011002)
        567274.60   4219659.23        1.70108  (11121018)                567324.60
4219659.23        1.80249  (10011124)
        567374.60   4219659.23        1.84652  (10010704)                567424.60
4219659.23        2.00297  (13010908)
        567024.60   4219709.23        1.71732  (11010720)                567074.60
4219709.23        1.99390  (11020706)
        567124.60   4219709.23        1.97064  (10121306)                567174.60
4219709.23        1.74273  (09122803)
        567224.60   4219709.23        1.88036  (10121002)                567274.60
4219709.23        1.83963  (10011002)
        567324.60   4219709.23        1.92329  (11121018)                567374.60
4219709.23        2.07004  (10011124)
        567424.60   4219709.23        2.08405  (10010704)                567024.60
4219759.23        2.04884  (10120124)
        567074.60   4219759.23        2.23925  (12120406)                567124.60
4219759.23        2.24925  (10021204)
        567174.60   4219759.23        2.04764  (11020706)                567224.60
4219759.23        2.12983  (09122803)
        567274.60   4219759.23        2.12455  (10020108)                567324.60
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4219759.23 2.23672 (10121002)
  567374.60 4219759.23 2.52158 (10020824) 567024.60
4219809.23 2.13085 (10010206)
  567074.60 4219809.23 2.33223 (10011121) 567124.60
4219809.23 2.48518 (10120124)
  567174.60 4219809.23 2.59932 (12120406) 567224.60
4219809.23 2.64312 (10021204)
  567274.60 4219809.23 2.60998 (10121306) 567324.60
4219809.23 2.71796 (09122803)
  567374.60 4219809.23 3.21962 (10121002) 567524.55
4219458.98 1.74013 (11011623)
  567574.55 4219458.98 1.75341 (13122924) 567624.55
4219458.98 2.10288 (10120222)
  567674.55 4219458.98 2.76464 (11012120) 567724.55
4219458.98 2.52220 (12120620)
  567774.55 4219458.98 2.36531 (09010202) 567824.55
4219458.98 2.38252 (10020104)
  567874.55 4219458.98 2.42810 (12020121) 567924.55
4219458.98 2.50740 (10122708)
  567524.55 4219508.98 1.84744 (11122903) 567574.55
4219508.98 1.94127 (09020619)
  567624.55 4219508.98 2.31687 (11012908) 567674.55
4219508.98 3.01545 (10020905)
  567724.55 4219508.98 2.70917 (10012321) 567774.55
4219508.98 2.56154 (13022708)
 *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   14:46:01

                                 PAGE 61
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                              *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   L0048843   , L0048844
, L0048845   , L0048846   , L0048847   ,
                 L0048848   , L0048849   , L0048850   , L0048851   , L0048852
, L0048853   , L0048854   , L0048855   ,
                 L0048856   , L0048857   , L0048858   , L0048859   , L0048860
, L0048861   , L0048862   , L0048863   ,
                 L0048864   , L0048865   , L0048866   , L0048867   , L0048868
, L0048869   , L0048870   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
567824.55	4219508.98	2.78598	(10020104)	567874.55	4219508.98	2.64621	(12020121)
567924.55	4219508.98	2.70065	(10122708)	567524.55	4219558.98	1.94200	(12120724)
567574.55	4219558.98	2.29924	(11011623)	567624.55	4219558.98	2.93292	(10021724)
567674.55	4219558.98	3.30888	(10120222)	567724.55	4219558.98	2.70245	(11022106)
567774.55	4219558.98	3.04475	(10012906)	567824.55	4219558.98	3.68388	(13010304)
567874.55	4219558.98	3.10508	(10021404)	567924.55	4219558.98	2.95881	(10122708)
567524.55	4219608.98	2.58741	(11121807)	567574.55	4219608.98	3.20829	(11122903)
567624.55	4219608.98	3.44244	(09020619)	567674.55	4219608.98	3.08518	(11012908)
567724.55	4219608.98	3.10295	(12022206)	567774.55	4219608.98	3.79143	(12020808)
567824.55	4219608.98	3.22695	(12022004)	567874.55	4219608.98	3.94493	(10021404)
567924.55	4219608.98	3.92086	(10122708)	567524.55	4219658.98	2.69827	(13010321)
567574.55	4219658.98	3.42932	(12021624)	567624.55	4219658.98	3.61308	(09010504)
567674.55	4219658.98	3.20946	(10021724)	567724.55	4219658.98	3.89584	(10020905)
567774.55	4219658.98	3.69068	(10012321)	567824.55	4219658.98	3.06231	(09010202)
567874.55	4219658.98	3.15744	(10021908)	567924.55	4219658.98	3.16156	(10120902)
567624.55	4219708.98	3.59656	(09010507)	567674.55	4219708.98	4.24983	(09020619)
567724.55	4219708.98	4.35585	(10021723)	567774.55	4219708.98	3.28221	(09022001)
567824.55	4219708.98	3.48215	(12020602)	567874.55	4219708.98	3.61672	(10021908)
567924.55	4219708.98	3.64313	(10120902)	567674.55	4219758.98	3.36710	(11122903)
567724.55	4219758.98	3.56457	(10021707)	567774.55	4219758.98	3.79290	(12022206)
567824.55	4219758.98	3.93044	(09022105)	567874.55			

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4219758.98        4.14471  (09121608)
        567924.55   4219758.98        4.19376  (10120902)                567924.57
4219458.79        2.50649  (10122708)
        567974.57   4219458.79        2.94686  (09011720)                568024.57
4219458.79        2.74556  (11010303)
        568074.57   4219458.79        2.60274  (10010124)                567924.57
4219508.79        2.69998  (10122708)
        567974.57   4219508.79        3.07087  (09011720)                568024.57
4219508.79        3.28104  (13020122)
        568074.57   4219508.79        3.38903  (09121708)                567924.57
4219558.79        2.95732  (10122708)
        567974.57   4219558.79        3.14975  (09011720)                568024.57
4219558.79        3.76372  (13020122)
        568074.57   4219558.79        3.52013  (10012905)                567924.57
4219608.79        3.91665  (10122708)
        567974.57   4219608.79        4.14115  (10121307)                568024.57
4219608.79        4.11574  (11012902)
        568074.57   4219608.79        2.98798  (12121607)                567924.57
4219658.79        3.15921  (10120902)
        567974.57   4219658.79        3.52041  (10121307)                568024.57
4219658.79        3.40634  (11122705)
        568074.57   4219658.79        3.36393  (12022108)                567924.57
4219708.79        3.64084  (10120902)
        567974.57   4219708.79        4.00087  (10121307)                568024.57
4219708.79        3.89880  (10010124)
        568074.57   4219708.79        3.67281  (09022824)                568124.57
4219708.79        3.63654  (12021202)
        567924.57   4219758.79        4.19124  (10120902)                567974.57
4219758.79        4.44838  (12121524)
        568024.57   4219758.79        4.36950  (09121708)                568074.57
4219758.79        4.42314  (10121107)
        568124.57   4219758.79        4.72976  (12013106)                567924.57
4219808.79        4.86552  (10120902)
        567974.57   4219808.79        5.15403  (11011917)                568024.57
4219808.79        5.14405  (12121607)
        568074.57   4219808.79        4.98072  (13012508)                568124.57
4219808.79        5.60296  (12010303)
        567924.57   4219858.79        5.72072  (10120902)                567974.57
4219858.79        6.11883  (11011917)
 *** AERMOD - VERSION  18081 ***   ***
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01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***        14:46:01

                                 PAGE  62
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0048843 , L0048844 , L0048845 , L0048846 , L0048847 , L0048848 , L0048849 , L0048850 , L0048851 , L0048852 , L0048853 , L0048854 , L0048855 , L0048856 , L0048857 , L0048858 , L0048859 , L0048860 , L0048861 , L0048862 , L0048863 , L0048864 , L0048865 , L0048866 , L0048867 , L0048868 , L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
568024.57	4219858.79	6.30169	(12022108)	568074.57	4219858.79	5.95563	(11011324)
568124.57	4219858.79	6.41252	(10121104)	567924.57	4219908.79	6.97243	(10120902)
567974.57	4219908.79	7.43195	(11012902)	568024.57	4219908.79	7.70459	(10121107)
568074.57	4219908.79	6.88160	(12010303)	568124.57	4219908.79	7.39817	(10022503)
567924.57	4219958.79	8.91261	(10120902)	567974.57	4219958.79	9.93618	(11122705)
568024.57	4219958.79	9.22345	(12122401)	568074.57	4219958.79	8.55534	(09122024)
568124.57	4219958.79	8.57996	(13010423)	567924.57	4220008.79	12.14548	(12012623)
567974.57	4220008.79	13.41513	(09121708)	568024.57	4220008.79	11.76484	(11012724)
568074.57	4220008.79	11.76853	(11011318)	568124.57	4220008.79	10.12535	(10020624)
567924.57	4220058.79	17.69386	(12012623)	567974.57	4220058.79	19.07055	(12022108)
568024.57	4220058.79	16.59162	(12010308)	568074.57	4220058.79	14.85604	(10020624)
568124.57	4220058.79	11.87690	(12012403)	567924.57	4220108.79	28.61995	(10021908)
567974.57	4220108.79	30.92668	(11011324)	568024.57	4220108.79	23.91766	(10020624)
568074.57	4220108.79	17.15215	(10121105)	568124.57			

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4220108.79        9.95340  (11022423)
        567924.57   4220158.79       62.27302  (13012501)                567974.57
4220158.79       63.90175  (10121106)
        568024.57   4220158.79       28.62825  (10020706)                568074.57
4220158.79       16.82535  (09012321)
        568124.57   4220158.79       11.25596  (12021822)                568124.99
4219708.95        3.63875  (12021202)
        568174.99   4219708.95        3.99171  (12010303)                568224.99
4219708.95        4.50716  (09122024)
        568274.99   4219708.95        4.37422  (13010302)                568324.99
4219708.95        4.01711  (13010423)
        568374.99   4219708.95        3.82986  (12020719)                568424.99
4219708.95        3.55259  (13021001)
        568474.99   4219708.95        3.35646  (12013105)                568524.99
4219708.95        3.13425  (12121324)
        568124.99   4219758.95        4.75007  (12013106)                568174.99
4219758.95        5.28019  (10121104)
        568224.99   4219758.95        4.86076  (13122523)                568274.99
4219758.95        4.29496  (09011402)
        568324.99   4219758.95        4.15783  (12120301)                568374.99
4219758.95        3.93825  (13021001)
        568424.99   4219758.95        3.80294  (10010524)                568474.99
4219758.95        3.52454  (13012402)
        568524.99   4219758.95        3.40327  (12012403)                568124.99
4219808.95        5.62738  (12010303)
        568174.99   4219808.95        5.82453  (12010308)                568224.99
4219808.95        5.37458  (11011318)
        568274.99   4219808.95        4.64503  (12120301)                568324.99
4219808.95        4.30020  (13021001)
        568374.99   4219808.95        4.24262  (10010524)                568424.99
4219808.95        3.99026  (13012402)
        568474.99   4219808.95        3.68238  (13012401)                568524.99
4219808.95        3.47393  (09022405)
        568124.99   4219858.95        6.39245  (10121104)                568174.99
4219858.95        6.33331  (13010302)
        568224.99   4219858.95        6.11375  (10121106)                568274.99
4219858.95        5.11096  (13021001)
        568324.99   4219858.95        4.58632  (10010524)                568374.99
4219858.95        4.53627  (09123124)
        568424.99   4219858.95        4.21106  (10121105)                568474.99
4219858.95        3.72542  (10011624)
        568524.99   4219858.95        3.55702  (10020706)                568124.99
4219908.95        7.37833  (10022503)
        568174.99   4219908.95        7.07029  (10121106)                568224.99
4219908.95        6.40198  (12011204)
        568274.99   4219908.95        5.70061  (09120208)                568324.99
4219908.95        5.00763  (12012403)
        568374.99   4219908.95        4.89396  (09022405)                568424.99
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4219908.95 4.25253 (10011624)
  568474.99 4219908.95 3.49120 (10020706) 568524.99
4219908.95 2.17168 (11022423)
  568124.99 4219958.95 8.59772 (13010423) 568174.99
4219958.95 7.70404 (12011204)
↑ *** AERMOD - VERSION 18081 *** ***
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01/16/19
 *** AERMET - VERSION 14134 *** ***
  *** 14:46:01

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844
, L0048845 , L0048846 , L0048847 ,
  L0048848 , L0048849 , L0048850 , L0048851 , L0048852
, L0048853 , L0048854 , L0048855 ,
  L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,
  L0048864 , L0048865 , L0048866 , L0048867 , L0048868
, L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
  **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
568224.99	4219958.95	7.16617	(12121324)	568274.99	4219958.95	6.55008	(13012401)
568324.99	4219958.95	5.80294	(10011624)	568374.99	4219958.95	4.97793	(10020706)
568424.99	4219958.95	3.26581	(11022423)	568474.99	4219958.95	2.55151	(11011920)
568524.99	4219958.95	2.56772	(13020503)	568124.99	4220008.95	10.10948	(12011204)
568174.99	4220008.95	8.46845	(13012402)	568224.99	4220008.95	7.26303	(09022405)
568274.99	4220008.95	6.43196	(10020706)	568324.99	4220008.95	4.76084	(13011121)
568374.99	4220008.95	4.14676	(09120301)	568424.99			

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4220008.95        2.92088  (13020503)
        568474.99   4220008.95        2.85964  (10012921)                568524.99
4220008.95        3.53726  (10022723)
        568124.99   4220058.95       11.87185  (12012403)                568174.99
4220058.95        8.49747  (10011624)
        568224.99   4220058.95        5.55901  (11022423)                568274.99
4220058.95        4.67212  (09120301)
        568324.99   4220058.95        4.01002  (13120702)                568374.99
4220058.95        3.51499  (10022719)
        568424.99   4220058.95        3.47939  (09012321)                568474.99
4220058.95        3.67307  (13022221)
        568524.99   4220058.95        3.54876  (09011104)                568124.99
4220108.95        9.91610  (11022423)
        568174.99   4220108.95        7.73318  (13020503)                568224.99
4220108.95        6.18257  (10022719)
        568274.99   4220108.95        5.08325  (13020318)                568324.99
4220108.95        4.22920  (12021822)
        568374.99   4220108.95        3.57165  (10020622)                568424.99
4220108.95        4.34579  (11020705)
        568474.99   4220108.95        3.72561  (11020705)                568524.99
4220108.95        3.44405  (11121017)
        568124.99   4220158.95       11.22228  (12021822)                568174.99
4220158.95        8.01263  (13011024)
        568224.99   4220158.95        6.28935  (10010422)                568274.99
4220158.95        4.88377  (11121017)
        568324.99   4220158.95        4.23414  (12010804)                568374.99
4220158.95        3.87617  (12010804)
        568424.99   4220158.95        3.71744  (12021103)                568474.99
4220158.95        3.50452  (12021103)
        568524.99   4220158.95        3.38687  (12021103)                568124.99
4220208.95       11.25426  (10020918)
        568174.99   4220208.95        8.22888  (10121721)                568224.99
4220208.95        6.48129  (10121721)
        568274.99   4220208.95        5.24668  (10121721)                568324.99
4220208.95        4.36986  (10121721)
        568374.99   4220208.95        3.70520  (10121721)                568424.99
4220208.95        3.19983  (10121721)
        568474.99   4220208.95        3.53078  (10121721)                568524.99
4220208.95        3.24501  (10121721)
        568124.99   4220258.95        9.37571  (13020423)                568174.99
4220258.95        7.87016  (11011904)
        568224.99   4220258.95        5.84591  (11022720)                568274.99
4220258.95        4.99774  (12121802)
        568324.99   4220258.95        4.00343  (12122523)                568374.99
4220258.95        3.55751  (12122523)
        568424.99   4220258.95        3.16208  (13020422)                568474.99
4220258.95        2.80710  (13020422)
        568524.99   4220258.95        2.47309  (13020422)                568124.99
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4220308.95 9.26377 (12022723)
  568174.99 4220308.95 6.74329 (12022221) 568224.99
4220308.95 5.66199 (09121402)
  568274.99 4220308.95 4.50349 (13020423) 568324.99
4220308.95 3.93552 (11011904)
  568374.99 4220308.95 3.54611 (11011904) 568424.99
4220308.95 3.00578 (13121904)
  568474.99 4220308.95 2.70075 (11022720) 568524.99
4220308.95 2.39745 (12121802)
  568124.99 4220358.95 9.18571 (11123022) 568174.99
4220358.95 7.95990 (11123001)
  568224.99 4220358.95 5.20748 (12021104) 568274.99
4220358.95 4.48915 (10020720)
  568324.99 4220358.95 3.88750 (09011206) 568374.99
4220358.95 3.35085 (11121907)
  568424.99 4220358.95 2.75192 (13020423) 568474.99
4220358.95 2.23613 (11011904)
  568524.99 4220358.95 2.31052 (11011904) 568124.99
4220408.95 7.52414 (11121923)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                            *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                INCLUDING SOURCE(S):   L0048843   , L0048844
, L0048845   , L0048846   , L0048847   ,
                 L0048848   , L0048849   , L0048850   , L0048851   , L0048852
, L0048853   , L0048854   , L0048855   ,
                 L0048856   , L0048857   , L0048858   , L0048859   , L0048860
, L0048861   , L0048862   , L0048863   ,
                 L0048864   , L0048865   , L0048866   , L0048867   , L0048868
, L0048869   , L0048870   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_10   IN MICROGRAMS/M**3
                 **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -

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- - - - - - - - - - - - - - - - - - - - - - - - - -
        568174.99   4220408.95        6.63768  (09021201)                568224.99
4220408.95        5.86494  (13122817)
        568274.99   4220408.95        5.09478  (10021924)                568324.99
4220408.95        3.59413  (12021104)
        568374.99   4220408.95        3.12795  (10020720)                568424.99
4220408.95        2.81959  (10012801)
        568474.99   4220408.95        2.53999  (09121402)                568524.99
4220408.95        2.23696  (11121907)
        568124.99   4220458.95        6.49144  (10020319)                568174.99
4220458.95        5.85427  (10121820)
        568224.99   4220458.95        5.15074  (11021223)                568274.99
4220458.95        4.64799  (13020221)
        568324.99   4220458.95        4.36955  (11123001)                568374.99
4220458.95        3.41070  (10021924)
        568424.99   4220458.95        2.68667  (12021104)                568474.99
4220458.95        2.42392  (10020720)
        568524.99   4220458.95        2.22206  (12022221)                568124.99
4220508.95        5.58839  (12022118)
        568174.99   4220508.95        5.10423  (12022302)                568224.99
4220508.95        4.82741  (10121820)
        568274.99   4220508.95        4.24594  (11021223)                568324.99
4220508.95        3.98611  (11123022)
        568374.99   4220508.95        3.63585  (13122817)                568424.99
4220508.95        3.27976  (11123001)
        568474.99   4220508.95        2.32196  (10021924)                568524.99
4220508.95        2.09801  (12021104)
        568124.99   4220558.95        4.82231  (13122021)                568174.99
4220558.95        4.56422  (11120320)
        568224.99   4220558.95        4.19950  (13011119)                568274.99
4220558.95        4.03616  (10121820)
        568324.99   4220558.95        3.54533  (12012920)                568374.99
4220558.95        3.45366  (11123022)
        568424.99   4220558.95        3.06696  (13021624)                568474.99
4220558.95        2.89726  (11123001)
        568524.99   4220558.95        2.52665  (10021924)                568124.99
4220608.95        4.45834  (10021219)
        568174.99   4220608.95        4.05510  (12022118)                568224.99
4220608.95        3.85119  (12021318)
        568274.99   4220608.95        3.53384  (13020222)                568324.99
4220608.95        3.42994  (10121820)
        568374.99   4220608.95        3.03029  (12012920)                567040.21
4220658.17        1.48702  (10020524)
        567090.21   4220658.17        1.54758  (11122317)                567140.21
4220658.17        1.75393  (12022808)
 *** AERMOD - VERSION  18081 ***   ***
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01/16/19
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*** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   L0048843   , L0048844 , L0048845   , L0048846   , L0048847   ,
L0048848   , L0048849   , L0048850   , L0048851   , L0048852 , L0048853   , L0048854   , L0048855   ,
L0048856   , L0048857   , L0048858   , L0048859   , L0048860 , L0048861   , L0048862   , L0048863   ,
L0048864   , L0048865   , L0048866   , L0048867   , L0048868 , L0048869   , L0048870   , . . .   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
567539.85	4220159.17	0.96208c	(11010824)	567589.85	4220159.17	1.19316c	(11010824)
567639.85	4220159.17	1.46490c	(11010824)	567539.85	4220209.17	1.46765b	(11011724)
567589.85	4220209.17	1.78954b	(11011724)	567639.85	4220209.17	2.10938b	(11011724)
567539.85	4220259.17	1.15812	(09010124)	567589.85	4220259.17	1.34101	(09010124)
567639.85	4220259.17	1.43762	(09010124)	567689.85	4220259.17	1.68485	(09010124)
567539.85	4220309.17	0.72660b	(09123124)	567589.85	4220309.17	0.81440b	(09123124)
567639.85	4220309.17	1.02338c	(11012324)	567689.85	4220309.17	1.08359b	(11013024)
567539.85	4220359.17	0.69417c	(09012324)	567589.85	4220359.17	0.73132b	(11013024)
567639.85	4220359.17	0.74108b	(09122424)	567689.85	4220359.17	1.02376c	(13121924)
567739.85	4220359.17	1.37816b	(13020924)	567539.85	4220409.17	0.49824b	(09122424)
567589.85	4220409.17	0.68360c	(13121924)	567639.85			

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4220409.17        0.91768b (13020924)
        567689.85   4220409.17        0.72578b (13020924)               567739.85
4220409.17        1.11720c (13020324)
        567539.85   4220459.17        0.54843c (12010524)               567589.85
4220459.17        0.80804b (13020924)
        567639.85   4220459.17        0.65813c (11021724)               567689.85
4220459.17        0.75844c (13022824)
        567739.85   4220459.17        0.81115c (13031424)               567539.85
4220509.17        0.70744b (13020924)
        567589.85   4220509.17        0.56462c (11021724)               567639.85
4220509.17        0.66194c (11021724)
        567689.85   4220509.17        0.65848c (13020324)               567739.85
4220509.17        0.75568c (10122624)
        567539.85   4220559.17        0.47698c (11021724)               567589.85
4220559.17        0.53601c (11021724)
        567639.85   4220559.17        0.58317c (13020324)               567689.85
4220559.17        0.48781c (10122624)
        567739.85   4220559.17        0.50745  (12122124)               567789.85
4220559.17        0.59009c (10031724)
        567539.85   4220609.17        0.43971c (11021724)               567589.85
4220609.17        0.47554c (13020324)
        567639.85   4220609.17        0.40303c (12122324)               567689.85
4220609.17        0.49729c (10122624)
        567739.85   4220609.17        0.46052c (13022624)               567789.85
4220609.17        0.56398c (10011724)
        567040.05   4219808.62        0.28393c (10010224)               567090.05
4219808.62        0.23960c (10010224)
        567140.05   4219808.62        0.26777c (12123124)               567190.05
4219808.62        0.29219c (12123124)
        567240.05   4219808.62        0.26440c (12123124)               567290.05
4219808.62        0.22141c (10121324)
        567340.05   4219808.62        0.22597c (13012024)               567040.05
4219858.62        0.25187c (10020124)
        567090.05   4219858.62        0.28667c (10010224)               567140.05
4219858.62        0.33734c (10010224)
        567190.05   4219858.62        0.30292c (10010224)               567240.05
4219858.62        0.32530c (12123124)
        567290.05   4219858.62        0.35444c (12123124)               567340.05
4219858.62        0.30379c (12123124)
        567390.05   4219858.62        0.25427c (10121324)               567040.05
4219908.62        0.16543c (10020124)
        567090.05   4219908.62        0.22384c (10020124)               567140.05
4219908.62        0.29000c (10020124)
        567190.05   4219908.62        0.30996c (10020124)               567240.05
4219908.62        0.39462c (10010224)
        567290.05   4219908.62        0.38455c (10010224)               567340.05
4219908.62        0.35281c (12123124)
        567390.05   4219908.62        0.33542c (12123124)               567440.05
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4219908.62 0.29447c (10121324)
567490.05 4219908.62 0.33562c (13012024) 567040.05
4219958.62 0.20951m (11011224)
567090.05 4219958.62 0.21726m (11011224) 567140.05
4219958.62 0.21729m (11011224)
567190.05 4219958.62 0.19901c (12021624) 567240.05
4219958.62 0.26610c (10020124)
567290.05 4219958.62 0.32725c (10020124) 567340.05
4219958.62 0.38041c (10010224)
567390.05 4219958.62 0.39479c (10010224) 567440.05
4219958.62 0.39378c (12123124)
↑ *** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

PAGE 66
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844
, L0048845 , L0048846 , L0048847 ,
L0048848 , L0048849 , L0048850 , L0048851 , L0048852
, L0048853 , L0048854 , L0048855 ,
L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,
L0048864 , L0048865 , L0048866 , L0048867 , L0048868
, L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M)
Y-COORD (M) CONC (YYMMDDHH)
- -
- -
567490.05 4219958.62 0.53603c (12123124) 567040.05
4220008.62 0.23746c (11010824)
567090.05 4220008.62 0.24170c (11010824) 567140.05
4220008.62 0.24362m (11011224)
567190.05 4220008.62 0.23882m (11011224) 567240.05
4220008.62 0.23377m (11011224)
567290.05 4220008.62 0.21083m (11011224) 567340.05

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4220008.62        0.19324c (12021624)
        567390.05   4220008.62        0.30770c (10020124)               567440.05
4220008.62        0.40944c (10020124)
        567490.05   4220008.62        0.65997c (10010224)               567540.05
4220008.62        0.62304c (12123124)
        567040.05   4220058.62        0.24603c (11010824)               567090.05
4220058.62        0.27106c (11010824)
        567140.05   4220058.62        0.28134b (11010724)               567190.05
4220058.62        0.28353b (11010724)
        567240.05   4220058.62        0.26355b (11010724)               567290.05
4220058.62        0.24022c (11010824)
        567340.05   4220058.62        0.25441m (11011224)               567390.05
4220058.62        0.29689m (11011224)
        567440.05   4220058.62        0.39100m (11011224)               567490.05
4220058.62        0.47463c (10020124)
        567540.05   4220058.62        0.68198c (10020124)               567040.05
4220108.62        0.26995b (09011224)
        567090.05   4220108.62        0.29951b (09011224)               567140.05
4220108.62        0.30383b (09011224)
        567190.05   4220108.62        0.32134b (11020424)               567240.05
4220108.62        0.33544b (11020424)
        567290.05   4220108.62        0.32113b (11020424)               567340.05
4220108.62        0.31942b (11020424)
        567390.05   4220108.62        0.34369b (11010724)               567440.05
4220108.62        0.55911c (11010824)
        567490.05   4220108.62        0.70829c (11010824)               567540.05
4220108.62        0.78621c (11010824)
        567040.05   4220158.62        0.41454b (11011724)               567090.05
4220158.62        0.43961b (11011724)
        567140.05   4220158.62        0.43671b (11011724)               567190.05
4220158.62        0.40608b (11011724)
        567240.05   4220158.62        0.36821b (11011724)               567290.05
4220158.62        0.36179b (11011724)
        567340.05   4220158.62        0.38451b (11011724)               567390.05
4220158.62        0.47998b (11011724)
        567440.05   4220158.62        0.68102b (11011724)               567490.05
4220158.62        0.78707c (11010824)
        567540.05   4220158.62        0.96227c (11010824)               567040.05
4220208.62        0.48468b (11011724)
        567090.05   4220208.62        0.53700b (11011724)               567140.05
4220208.62        0.55785b (11011724)
        567190.05   4220208.62        0.56556b (11011724)               567240.05
4220208.62        0.52792b (11011724)
        567290.05   4220208.62        0.56664b (11011724)               567340.05
4220208.62        0.73438b (11011724)
        567390.05   4220208.62        0.99422b (11011724)               567440.05
4220208.62        1.06151b (11011724)
        567490.05   4220208.62        1.23085b (11011724)               567540.05
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4220208.62   1.47229b (11011724)
        567040.05   4220258.62   0.41048 (09010124)   567090.05
4220258.62   0.42380 (09010124)
        567140.05   4220258.62   0.40711 (09010124)   567190.05
4220258.62   0.36799 (09010124)
        567240.05   4220258.62   0.37750 (09010124)   567290.05
4220258.62   0.47243 (09010124)
        567340.05   4220258.62   0.67313 (09010124)   567390.05
4220258.62   0.77196 (09010124)
        567440.05   4220258.62   0.88856 (09010124)   567490.05
4220258.62   1.01234 (09010124)
        567540.05   4220258.62   1.16450 (09010124)   567040.05
4220308.62   0.31489 (09010124)
        567090.05   4220308.62   0.28882 (09010124)   567140.05
4220308.62   0.25184 (09010124)
        567190.05   4220308.62   0.25886c (10120424)   567240.05
4220308.62   0.38523c (10120424)
        567290.05   4220308.62   0.45722c (10120424)   567340.05
4220308.62   0.48676 (09010124)
        567390.05   4220308.62   0.53455 (09010124)   567440.05
4220308.62   0.57849 (09010124)
        567490.05   4220308.62   0.63057 (09010124)   567540.05
4220308.62   0.72875b (09123124)
        567040.05   4220358.62   0.30524c (10120424)   567090.05
4220358.62   0.30984c (10120424)
 *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   14:46:01

                                 PAGE 67
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   L0048843   , L0048844
, L0048845   , L0048846   , L0048847   ,
                 L0048848   , L0048849   , L0048850   , L0048851   , L0048852
, L0048853   , L0048854   , L0048855   ,
                 L0048856   , L0048857   , L0048858   , L0048859   , L0048860
, L0048861   , L0048862   , L0048863   ,
                 L0048864   , L0048865   , L0048866   , L0048867   , L0048868
, L0048869   , L0048870   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
567140.05	4220358.62	0.29131c (10012324)	567190.05	4220358.62	0.32708c (10020524)
567240.05	4220358.62	0.32705c (10020524)	567290.05	4220358.62	0.33003b (09123124)
567340.05	4220358.62	0.37081b (09123124)	567390.05	4220358.62	0.41666b (09123124)
567440.05	4220358.62	0.46572c (11012324)	567490.05	4220358.62	0.57432c (11012324)
567540.05	4220358.62	0.69611c (09012324)	567040.05	4220408.62	0.23539c (10020524)
567090.05	4220408.62	0.21875b (11110224)	567140.05	4220408.62	0.26082b (11110224)
567190.05	4220408.62	0.30928b (11110224)	567240.05	4220408.62	0.32463b (11110224)
567290.05	4220408.62	0.34714b (11110224)	567340.05	4220408.62	0.38904c (11012324)
567390.05	4220408.62	0.50694c (09012324)	567440.05	4220408.62	0.52276c (09012324)
567490.05	4220408.62	0.49469b (11013024)	567540.05	4220408.62	0.49939b (09122424)
567040.05	4220458.62	0.24067b (11110224)	567090.05	4220458.62	0.24665b (11110224)
567140.05	4220458.62	0.28006b (11110224)	567190.05	4220458.62	0.28849b (11110224)
567240.05	4220458.62	0.40480c (09012324)	567290.05	4220458.62	0.45467c (09012324)
567340.05	4220458.62	0.37874c (09012324)	567390.05	4220458.62	0.41635b (09011424)
567440.05	4220458.62	0.36715b (09122424)	567490.05	4220458.62	0.45020c (13121924)
567540.05	4220458.62	0.54762c (12010524)	567040.05	4220508.62	0.20679c (11012324)
567090.05	4220508.62	0.24588c (09012324)	567140.05	4220508.62	0.31366c (09012324)
567190.05	4220508.62	0.34431c (09012324)	567240.05	4220508.62	0.31583c (13032324)
567290.05	4220508.62	0.36002b (09011424)	567340.05	4220508.62	0.34395c (13021424)
567390.05	4220508.62	0.35823c (13121924)	567440.05	4220508.62	0.42595c (13121924)
567490.05	4220508.62	0.56959b (13020924)	567540.05		

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4220508.62        0.71258b (13020924)
        567040.05   4220558.62        0.22145c (09012324)               567090.05
4220558.62        0.21044c (09012324)
        567140.05   4220558.62        0.21466b (11013024)               567190.05
4220558.62        0.26035b (09011424)
        567240.05   4220558.62        0.27318c (13021424)               567290.05
4220558.62        0.35451c (13021424)
        567340.05   4220558.62        0.35913c (13121924)               567390.05
4220558.62        0.38262c (12010524)
        567440.05   4220558.62        0.57015b (13020924)               567490.05
4220558.62        0.48237b (13020924)
        567540.05   4220558.62        0.47616c (11021724)               567040.05
4220608.62        0.17745b (11013024)
        567090.05   4220608.62        0.18239b (09011424)               567140.05
4220608.62        0.17499b (09122424)
        567190.05   4220608.62        0.25433c (13021424)               567240.05
4220608.62        0.29997c (13121924)
        567290.05   4220608.62        0.31055c (09112324)               567340.05
4220608.62        0.35649c (12010524)
        567390.05   4220608.62        0.42896b (13020924)               567440.05
4220608.62        0.31348b (13020924)
        567490.05   4220608.62        0.41139c (11021724)               567540.05
4220608.62        0.44127c (11021724)
        567040.05   4220658.62        0.14700b (09011424)               567090.05
4220658.62        0.16294c (13021424)
        567140.05   4220658.62        0.19145c (13121924)               567190.05
4220658.62        0.24368c (13121924)
        567240.05   4220658.62        0.28834c (12010524)               567290.05
4220658.62        0.40745b (13020924)
        567340.05   4220658.62        0.42728b (13020924)               567390.05
4220658.62        0.24001b (09122924)
        567440.05   4220658.62        0.35802c (11021724)               567490.05
4220658.62        0.36010c (11021724)
        567540.05   4220658.62        0.39692c (13020324)               567024.60
4219459.23        0.13041  (10010724)
        567074.60   4219459.23        0.11752  (10010724)               567124.60
4219459.23        0.11865c (09121024)
        567174.60   4219459.23        0.14965c (09121024)               567224.60
4219459.23        0.15118c (09121024)
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                      ***        14:46:01

                                 PAGE  68
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
```

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0048843 , L0048844 , L0048845 , L0048846 , L0048847 , L0048848 , L0048849 , L0048850 , L0048851 , L0048852 , L0048853 , L0048854 , L0048855 , L0048856 , L0048857 , L0048858 , L0048859 , L0048860 , L0048861 , L0048862 , L0048863 , L0048864 , L0048865 , L0048866 , L0048867 , L0048868 , L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
567274.60	4219459.23	0.13505c	(09012824)	567324.60	4219459.23	0.15004b	(09011824)
567374.60	4219459.23	0.17379c	(11120924)	567424.60	4219459.23	0.22662c	(11120924)
567024.60	4219509.23	0.13890	(10010724)	567074.60	4219509.23	0.14488	(10010724)
567124.60	4219509.23	0.13123	(10010724)	567174.60	4219509.23	0.12836c	(09121024)
567224.60	4219509.23	0.16501c	(09121024)	567274.60	4219509.23	0.16703c	(09121024)
567324.60	4219509.23	0.14928c	(09012824)	567374.60	4219509.23	0.16307b	(09011824)
567424.60	4219509.23	0.21745c	(11120924)	567024.60	4219559.23	0.11721	(10010724)
567074.60	4219559.23	0.14678	(10010724)	567124.60	4219559.23	0.15072	(10010724)
567174.60	4219559.23	0.14202	(10010724)	567224.60	4219559.23	0.13930c	(09121024)
567274.60	4219559.23	0.18328c	(09121024)	567324.60	4219559.23	0.18610c	(09121024)
567374.60	4219559.23	0.17247b	(09011824)	567424.60	4219559.23	0.17720b	(09011824)
567024.60	4219609.23	0.11972c	(13012024)	567074.60	4219609.23	0.12057c	(13012024)
567124.60	4219609.23	0.14234	(10010724)	567174.60	4219609.23	0.15626	(10010724)
567224.60	4219609.23	0.15797	(10010724)	567274.60			

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4219609.23        0.15857  (10010724)
        567324.60   4219609.23        0.20597c (09121024)               567374.60
4219609.23        0.20882c (09121024)
        567424.60   4219609.23        0.20342b (09011824)               567024.60
4219659.23        0.13150c (10121324)
        567074.60   4219659.23        0.13543c (10121324)               567124.60
4219659.23        0.13738c (13012024)
        567174.60   4219659.23        0.14383  (10010724)               567224.60
4219659.23        0.16673  (10010724)
        567274.60   4219659.23        0.18097  (10010724)               567324.60
4219659.23        0.18408  (10010724)
        567374.60   4219659.23        0.23426c (09121024)               567424.60
4219659.23        0.23730c (09121024)
        567024.60   4219709.23        0.19635c (12123124)               567074.60
4219709.23        0.18120c (12123124)
        567124.60   4219709.23        0.16414c (10121324)               567174.60
4219709.23        0.15428c (13012024)
        567224.60   4219709.23        0.14852c (13012024)               567274.60
4219709.23        0.18431  (10010724)
        567324.60   4219709.23        0.20841  (10010724)               567374.60
4219709.23        0.21721  (10010724)
        567424.60   4219709.23        0.26737c (09121024)               567024.60
4219759.23        0.21763c (12123124)
        567074.60   4219759.23        0.24315c (12123124)               567124.60
4219759.23        0.23910c (12123124)
        567174.60   4219759.23        0.19273c (12123124)               567224.60
4219759.23        0.17782c (10121324)
        567274.60   4219759.23        0.18374c (13012024)               567324.60
4219759.23        0.21050  (10010724)
        567374.60   4219759.23        0.26283  (10010724)               567024.60
4219809.23        0.27621c (10010224)
        567074.60   4219809.23        0.26223c (10010224)               567124.60
4219809.23        0.25261c (12123124)
        567174.60   4219809.23        0.28981c (12123124)               567224.60
4219809.23        0.28018c (12123124)
        567274.60   4219809.23        0.21817c (12123124)               567324.60
4219809.23        0.22097c (13012024)
        567374.60   4219809.23        0.23029  (10010724)               567524.55
4219458.98        0.25704m (09020624)
        567574.55   4219458.98        0.25221c (10021724)               567624.55
4219458.98        0.31761c (13011524)
        567674.55   4219458.98        0.35830c (13122324)               567724.55
4219458.98        0.35385c (13122324)
        567774.55   4219458.98        0.28444c (11010424)               567824.55
4219458.98        0.45137c (13121424)
        567874.55   4219458.98        0.39709c (10120124)               567924.55
4219458.98        0.35522b (11021224)
        567524.55   4219508.98        0.26063m (09020624)               567574.55
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4219508.98 0.26896m (09020624)
  567624.55 4219508.98 0.34554c (10021724) 567674.55
4219508.98 0.34916c (13011524)
  567724.55 4219508.98 0.44398c (13122324) 567774.55
4219508.98 0.26106c (11010424)
↟ *** AERMOD - VERSION 18081 *** ***
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01/16/19
 *** AERMET - VERSION 14134 *** ***
  *** 14:46:01

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844 , L0048845 , L0048846 , L0048847 ,
  L0048848 , L0048849 , L0048850 , L0048851 , L0048852 , L0048853 , L0048854 , L0048855 ,
  L0048856 , L0048857 , L0048858 , L0048859 , L0048860 , L0048861 , L0048862 , L0048863 ,
  L0048864 , L0048865 , L0048866 , L0048867 , L0048868 , L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
567824.55	4219508.98	0.49523c	(13121424)	567874.55	4219508.98	0.40365c	(10120124)
567924.55	4219508.98	0.39346b	(11021224)	567524.55	4219558.98	0.25572c	(11021124)
567574.55	4219558.98	0.33756m	(09020624)	567624.55	4219558.98	0.41452c	(10021724)
567674.55	4219558.98	0.37201c	(13021224)	567724.55	4219558.98	0.41627c	(13122324)
567774.55	4219558.98	0.28668c	(12111124)	567824.55	4219558.98	0.59270c	(13121424)
567874.55	4219558.98	0.45169c	(10120124)	567924.55	4219558.98	0.43773b	(11021224)
567524.55	4219608.98	0.36799c	(11120924)	567574.55			

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4219608.98        0.35924m (09020624)
        567624.55   4219608.98        0.38747m (09020624)               567674.55
4219608.98        0.41449c (10021724)
        567724.55   4219608.98        0.36581c (12111324)               567774.55
4219608.98        0.52770c (13122324)
        567824.55   4219608.98        0.66206c (13120624)               567874.55
4219608.98        0.64309c (10120124)
        567924.55   4219608.98        0.59353b (11021224)               567524.55
4219658.98        0.31402c (11120924)
        567574.55   4219658.98        0.43882c (11120924)               567624.55
4219658.98        0.44378m (09020624)
        567674.55   4219658.98        0.43393c (10021724)               567724.55
4219658.98        0.42400c (13011524)
        567774.55   4219658.98        0.66845c (13122324)               567824.55
4219658.98        0.68320c (13120624)
        567874.55   4219658.98        0.67179c (10121524)               567924.55
4219658.98        0.68089b (09022024)
        567624.55   4219708.98        0.41448c (11021124)               567674.55
4219708.98        0.53101m (09020624)
        567724.55   4219708.98        0.60124c (10021724)               567774.55
4219708.98        0.61397c (13122324)
        567824.55   4219708.98        0.72059c (13120624)               567874.55
4219708.98        0.81007c (10121524)
        567924.55   4219708.98        0.80437b (09022024)               567674.55
4219758.98        0.51364m (09020624)
        567724.55   4219758.98        0.54227c (10021724)               567774.55
4219758.98        0.64780c (13011524)
        567824.55   4219758.98        0.72270c (13120624)               567874.55
4219758.98        0.95995c (10121524)
        567924.55   4219758.98        0.94417b (09022024)               567924.57
4219458.79        0.35504b (11021224)
        567974.57   4219458.79        0.35342c (13020424)               568024.57
4219458.79        0.24111c (10102224)
        568074.57   4219458.79        0.35822c (11020524)               567924.57
4219508.79        0.39325b (11021224)
        567974.57   4219508.79        0.37085c (13020424)               568024.57
4219508.79        0.35115c (11122724)
        568074.57   4219508.79        0.45588c (11020524)               567924.57
4219558.79        0.43751b (11021224)
        567974.57   4219558.79        0.39280c (13121024)               568024.57
4219558.79        0.43308c (11122724)
        568074.57   4219558.79        0.46868c (11020524)               567924.57
4219608.79        0.59228b (11021224)
        567974.57   4219608.79        0.54860c (13121024)               568024.57
4219608.79        0.54413c (11122724)
        568074.57   4219608.79        0.37864c (12020524)               567924.57
4219658.79        0.68018b (09022024)
        567974.57   4219658.79        0.52745c (09121724)               568024.57
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4219658.79   0.50734c (11020524)
        568074.57   4219658.79   0.42716b (09011424)   567924.57
4219708.79   0.80368b (09022024)
        567974.57   4219708.79   0.59999c (13121024)   568024.57
4219708.79   0.59532c (11020524)
        568074.57   4219708.79   0.44976b (09011424)   568124.57
4219708.79   0.48842c (13011724)
        567924.57   4219758.79   0.94338b (09022024)   567974.57
4219758.79   0.67630c (13121024)
        568024.57   4219758.79   0.67523c (11020524)   568074.57
4219758.79   0.44981c (11012524)
        568124.57   4219758.79   0.48616c (13011724)   567924.57
4219808.79   1.11746b (09022024)
        567974.57   4219808.79   0.76192c (13121024)   568024.57
4219808.79   0.73726c (11020524)
        568074.57   4219808.79   0.66568c (13011724)   568124.57
4219808.79   0.59909c (11120324)
        567924.57   4219858.79   1.34526b (09022024)   567974.57
4219858.79   0.85684c (13020424)
 *** AERMOD - VERSION 18081 ***   ***
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01/16/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   14:46:01

                                 PAGE 70
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   L0048843   , L0048844
, L0048845   , L0048846   , L0048847   ,
                 L0048848   , L0048849   , L0048850   , L0048851   , L0048852
, L0048853   , L0048854   , L0048855   ,
                 L0048856   , L0048857   , L0048858   , L0048859   , L0048860
, L0048861   , L0048862   , L0048863   ,
                 L0048864   , L0048865   , L0048866   , L0048867   , L0048868
, L0048869   , L0048870   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_10   IN MICROGRAMS/M**3
                 **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -

- -
568024.57 4219858.79 0.85149b (09011424) 568074.57
4219858.79 0.75362c (13011724)
568124.57 4219858.79 0.72912c (10121124) 567924.57
4219908.79 1.70272b (09022024)
567974.57 4219908.79 1.09780c (11122724) 568024.57
4219908.79 0.88791b (09011424)
568074.57 4219908.79 0.88126c (11120324) 568124.57
4219908.79 0.70523c (11031724)
567924.57 4219958.79 2.30333b (09022024) 567974.57
4219958.79 1.68759c (11020524)
568024.57 4219958.79 1.30833c (13011724) 568074.57
4219958.79 0.96918c (10121124)
568124.57 4219958.79 1.08685c (12121824) 567924.57
4220008.79 3.28255b (09022024)
567974.57 4220008.79 2.34324c (11020524) 568024.57
4220008.79 1.48548c (11120324)
568074.57 4220008.79 1.22664c (12121824) 568124.57
4220008.79 1.51903c (10042124)
567924.57 4220058.79 5.00136b (09022024) 567974.57
4220058.79 2.85157b (09011424)
568024.57 4220058.79 1.80438c (10121124) 568074.57
4220058.79 2.30175c (10042124)
568124.57 4220058.79 1.95651c (10123024) 567924.57
4220108.79 9.14860c (10120124)
567974.57 4220108.79 4.30619c (13011724) 568024.57
4220108.79 4.25367c (12121824)
568074.57 4220108.79 2.53121c (10123024) 568124.57
4220108.79 1.29498c (10021924)
567924.57 4220158.79 21.97727c (10120124) 567974.57
4220158.79 14.11283c (12121824)
568024.57 4220158.79 4.23187c (10021924) 568074.57
4220158.79 2.64409c (12021824)
568124.57 4220158.79 1.90699c (12021824) 568124.99
4219708.95 0.48747c (13011724)
568174.99 4219708.95 0.44663c (11120324) 568224.99
4219708.95 0.39023b (09122424)
568274.99 4219708.95 0.37630c (11031724) 568324.99
4219708.95 0.36309c (12121824)
568374.99 4219708.95 0.47211c (12121824) 568424.99
4219708.95 0.39583c (10042124)
568474.99 4219708.95 0.35235c (12021224) 568524.99
4219708.95 0.24714c (10123024)
568124.99 4219758.95 0.48220c (13011724) 568174.99
4219758.95 0.59338c (10121124)
568224.99 4219758.95 0.42708c (11031724) 568274.99
4219758.95 0.32568b (09011424)
568324.99 4219758.95 0.50990c (12121824) 568374.99

4219758.95   0.44502c (10042124)
        568424.99   4219758.95   0.39232c (12021224)   568474.99
4219758.95   0.32337c (10123024)
        568524.99   4219758.95   0.37684c (10123024)   568124.99
4219808.95   0.60002c (11120324)
        568174.99   4219808.95   0.43786c (11031724)   568224.99
4219808.95   0.48525b (09011424)
        568274.99   4219808.95   0.58362c (12121824)   568324.99
4219808.95   0.49745c (10042124)
        568374.99   4219808.95   0.42436c (12021224)   568424.99
4219808.95   0.37917c (10123024)
        568474.99   4219808.95   0.36860c (10123024)   568524.99
4219808.95   0.30017b (09041324)
        568124.99   4219858.95   0.72685c (10121124)   568174.99
4219858.95   0.61883b (09011424)
        568224.99   4219858.95   0.77842c (12121824)   568274.99
4219858.95   0.62344c (10042124)
        568324.99   4219858.95   0.44319c (12021224)   568374.99
4219858.95   0.47846c (10123024)
        568424.99   4219858.95   0.34354c (10123024)   568474.99
4219858.95   0.32557b (09041324)
        568524.99   4219858.95   0.26206b (13041924)   568124.99
4219908.95   0.70831c (11031724)
        568174.99   4219908.95   0.93117c (12121824)   568224.99
4219908.95   0.83486c (10042124)
        568274.99   4219908.95   0.51052c (10123024)   568324.99
4219908.95   0.54837c (10123024)
        568374.99   4219908.95   0.44095b (09041324)   568424.99
4219908.95   0.31448b (13041924)
        568474.99   4219908.95   0.29066b (13041924)   568524.99
4219908.95   0.21326c (10021924)
        568124.99   4219958.95   1.09726c (12121824)   568174.99
4219958.95   1.09960c (10042124)
 *** AERMOD - VERSION 18081 ***   ***
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01/16/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   14:46:01

                                 PAGE 71
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                             *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   L0048843   , L0048844
, L0048845   , L0048846   , L0048847   ,
                L0048848   , L0048849   , L0048850   , L0048851   , L0048852
, L0048853   , L0048854   , L0048855   ,

L0048856 , L0048857 , L0048858 , L0048859 , L0048860
, L0048861 , L0048862 , L0048863 ,
L0048864 , L0048865 , L0048866 , L0048867 , L0048868
, L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
568224.99	4219958.95	0.92315c (10123024)	568274.99	4219958.95	0.70951c (10123024)
568324.99	4219958.95	0.47458b (09041324)	568374.99	4219958.95	0.39799b (13041924)
568424.99	4219958.95	0.29573c (10021924)	568474.99	4219958.95	0.26835c (13012624)
568524.99	4219958.95	0.26321c (10042824)	568124.99	4220008.95	1.51294c (10042124)
568174.99	4220008.95	1.39601c (10123024)	568224.99	4220008.95	0.74550c (10123024)
568274.99	4220008.95	0.51472c (12121824)	568324.99	4220008.95	0.42222c (10021924)
568374.99	4220008.95	0.41333c (10042824)	568424.99	4220008.95	0.32851c (13012624)
568474.99	4220008.95	0.30329b (09042924)	568524.99	4220008.95	0.36330b (09042924)
568124.99	4220058.95	1.94653c (10123024)	568174.99	4220058.95	0.84180c (12121824)
568224.99	4220058.95	0.66226c (10021924)	568274.99	4220058.95	0.55458c (13012624)
568324.99	4220058.95	0.45379c (13012624)	568374.99	4220058.95	0.37405b (09042924)
568424.99	4220058.95	0.40310c (12021824)	568474.99	4220058.95	0.44220c (12021824)
568524.99	4220058.95	0.39576c (12021824)	568124.99	4220108.95	1.29410c (10021924)
568174.99	4220108.95	0.97813c (13012624)	568224.99	4220108.95	0.73594c (12021824)
568274.99	4220108.95	0.74166c (12021824)	568324.99	4220108.95	0.65624c (12021824)
568374.99	4220108.95	0.52154c (12021824)	568424.99	4220108.95	0.44037b (10020624)
568474.99	4220108.95	0.41204c (11041624)	568524.99		

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4220108.95        0.38345c (11041624)
        568124.99   4220158.95        1.90017c (12021824)                568174.99
4220158.95        1.21814c (12021824)
        568224.99   4220158.95        0.85100c (12021124)                568274.99
4220158.95        0.78342c (12021124)
        568324.99   4220158.95        0.70215c (12021124)                568374.99
4220158.95        0.64322c (12021124)
        568424.99   4220158.95        0.60651c (12021124)                568474.99
4220158.95        0.55636c (12021124)
        568524.99   4220158.95        0.51817c (12021124)                568124.99
4220208.95        1.85270b (12090724)
        568174.99   4220208.95        1.29492b (12090724)                568224.99
4220208.95        0.97649b (12090724)
        568274.99   4220208.95        0.76276b (12090724)                568324.99
4220208.95        0.61723b (12090724)
        568374.99   4220208.95        0.51029b (12090724)                568424.99
4220208.95        0.43130b (12090724)
        568474.99   4220208.95        0.42068b (12090724)                568524.99
4220208.95        0.37105b (12090724)
        568124.99   4220258.95        1.84738c (10022024)                568174.99
4220258.95        1.24606c (10022024)
        568224.99   4220258.95        0.80139c (10022024)                568274.99
4220258.95        0.65173c (12022924)
        568324.99   4220258.95        0.53500c (12022924)                568374.99
4220258.95        0.43253c (12022924)
        568424.99   4220258.95        0.36600c (12021324)                568474.99
4220258.95        0.31879c (12021324)
        568524.99   4220258.95        0.27973c (12021324)                568124.99
4220308.95        1.31544c (12022724)
        568174.99   4220308.95        1.00836c (10022024)                568224.99
4220308.95        0.89759c (10022024)
        568274.99   4220308.95        0.72597c (10022024)                568324.99
4220308.95        0.55218c (10022024)
        568374.99   4220308.95        0.42891c (12051524)                568424.99
4220308.95        0.37441c (12051524)
        568474.99   4220308.95        0.31799c (12051524)                568524.99
4220308.95        0.28256c (12022924)
        568124.99   4220358.95        0.93697b (09051224)                568174.99
4220358.95        0.90575c (12022724)
        568224.99   4220358.95        0.68075c (12022724)                568274.99
4220358.95        0.59640c (10022024)
        568324.99   4220358.95        0.57884c (10022024)                568374.99
4220358.95        0.48855c (10022024)
        568424.99   4220358.95        0.38880c (10022024)                568474.99
4220358.95        0.31344c (10022024)
        568524.99   4220358.95        0.26043c (12051524)                568124.99
4220408.95        0.74259c (13051324)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0048843 , L0048844 , L0048845 , L0048846 , L0048847 ,
L0048848 , L0048849 , L0048850 , L0048851 , L0048852 , L0048853 , L0048854 , L0048855 ,
L0048856 , L0048857 , L0048858 , L0048859 , L0048860 , L0048861 , L0048862 , L0048863 ,
L0048864 , L0048865 , L0048866 , L0048867 , L0048868 , L0048869 , L0048870 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
568174.99	4220408.95	0.66772b	(09051224)	568224.99	4220408.95	0.63402c	(13020224)
568274.99	4220408.95	0.62013c	(12022724)	568324.99	4220408.95	0.40668c	(10011324)
568374.99	4220408.95	0.38011c	(10022024)	568424.99	4220408.95	0.38503c	(10022024)
568474.99	4220408.95	0.35231c	(10022024)	568524.99	4220408.95	0.30286c	(10022024)
568124.99	4220458.95	0.67958c	(13062524)	568174.99	4220458.95	0.51761c	(09032024)
568224.99	4220458.95	0.50587b	(11021224)	568274.99	4220458.95	0.42558c	(13020224)
568324.99	4220458.95	0.45388c	(12022724)	568374.99	4220458.95	0.42166c	(12022724)
568424.99	4220458.95	0.29564c	(10020724)	568474.99	4220458.95	0.28027c	(10022024)
568524.99	4220458.95	0.28866c	(10022024)	568124.99	4220508.95	0.59741b	(12091124)
568174.99	4220508.95	0.51816c	(13051324)	568224.99			

4220508.95   0.40314c (09032024)
        568274.99   4220508.95   0.42756b (11021224)   568324.99
4220508.95   0.32719b (09051224)
        568374.99   4220508.95   0.36703c (13020224)   568424.99
4220508.95   0.37383c (12022724)
        568474.99   4220508.95   0.29636c (12022724)   568524.99
4220508.95   0.22976c (10020724)
        568124.99   4220558.95   0.56680b (13051124)   568174.99
4220558.95   0.45380c (13062524)
        568224.99   4220558.95   0.41827c (13051324)   568274.99
4220558.95   0.32292c (09032024)
        568324.99   4220558.95   0.36361b (11021224)   568374.99
4220558.95   0.28440b (09051224)
        568424.99   4220558.95   0.29027c (13020224)   568474.99
4220558.95   0.28624c (12022724)
        568524.99   4220558.95   0.29160c (12022724)   568124.99
4220608.95   0.51794b (12013024)
        568174.99   4220608.95   0.41952b (12091124)   568224.99
4220608.95   0.35137c (13062524)
        568274.99   4220608.95   0.33388c (13051324)   568324.99
4220608.95   0.27153c (10021024)
        568374.99   4220608.95   0.30999b (11021224)   567040.21
4220658.17   0.14752b (09011424)
        567090.21   4220658.17   0.16295c (13021424)   567140.21
4220658.17   0.19125c (13121924)
↑ *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION 14134 ***   ***
                       ***   14:46:01

                                  PAGE 73
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***

                                    ** CONC OF PM_10   IN MICROGRAMS/M**3
               **

                        NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV,
ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - - - - -

```
ALL       1ST HIGHEST VALUE IS       2.71971 AT (  567924.57,  4220158.79,    36.36,
   36.36,    0.00)  DC
          2ND HIGHEST VALUE IS       1.43849 AT (  567974.57,  4220158.79,    37.25,
   37.25,    0.00)  DC
          3RD HIGHEST VALUE IS       0.89892 AT (  567924.57,  4220108.79,    36.51,
   36.51,    0.00)  DC
          4TH HIGHEST VALUE IS       0.68071 AT (  568024.57,  4220158.79,    36.80,
   36.80,    0.00)  DC
          5TH HIGHEST VALUE IS       0.53205 AT (  567974.57,  4220108.79,    38.51,
   38.51,    0.00)  DC
          6TH HIGHEST VALUE IS       0.44496 AT (  567924.57,  4220058.79,    35.74,
   35.74,    0.00)  DC
          7TH HIGHEST VALUE IS       0.39345 AT (  568074.57,  4220158.79,    36.11,
   36.11,    0.00)  DC
          8TH HIGHEST VALUE IS       0.36811 AT (  568124.99,  4220208.95,    35.98,
  325.68,    0.00)  DC
          9TH HIGHEST VALUE IS       0.34786 AT (  568124.99,  4220258.95,    32.70,
  325.68,    0.00)  DC
         10TH HIGHEST VALUE IS       0.33392 AT (  568024.57,  4220108.79,    39.30,
   39.30,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:46:01

                                  PAGE  74
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                                  *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
             **

                                                        DATE
                                          NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
```

ALL HIGH 1ST HIGH VALUE IS 63.90175 ON 10121106: AT (567974.57, 4220158.79, 37.25, 37.25, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID

ALL HIGH 1ST HIGH VALUE IS 21.97727c ON 10120124: AT (567924.57, 4220158.79, 36.36, 36.36, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
01/16/19
*** AERMET - VERSION 14134 *** ***
*** 14:46:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

```
*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            1 Warning Message(s)
A Total of        10597 Informational Message(s)

A Total of        43872 Hours Were Processed

A Total of         9342 Calm Hours Identified

A Total of         1255 Missing Hours Identified (  2.86 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
MX W481   43873         MAIN: Data Remaining After End of Year. Number of Hours=
      48

   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 2/1/2019
** File: C:\Lakes\AERMOD View\Northgate Vallejo_I-80\Northgate Vallejo_I-80.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H
   MODELOPT DFAULT CONC
   AVERTIME 1 24 ANNUAL
   URBANOPT 445458 Solano_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Northgate Vallejo_I-80.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC I-80 NB
** PREFIX
** Length of Side = 17.00
** Configuration = Adjacent
** Emission Rate = 0.0002937
** Vertical Dimension = 6.12
** SZINIT = 2.85
** Nodes = 4
** 567509.302, 4219779.559, 37.54, 3.06, 7.91
** 567578.234, 4219960.508, 33.44, 3.06, 7.91
** 568139.517, 4221103.141, 31.08, 3.06, 7.91
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** 568341.513, 4221500.541, 43.41, 3.06, 7.91
** ------------------------------------------------------------------
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   LOCATION L0058824     VOLUME   567518.380 4219803.389 37.49
   LOCATION L0058825     VOLUME   567524.431 4219819.275 37.29
   LOCATION L0058826     VOLUME   567530.483 4219835.161 36.93
   LOCATION L0058827     VOLUME   567536.535 4219851.048 36.39
   LOCATION L0058828     VOLUME   567542.587 4219866.934 36.05
   LOCATION L0058829     VOLUME   567548.639 4219882.820 35.86
   LOCATION L0058830     VOLUME   567554.691 4219898.706 35.75
   LOCATION L0058831     VOLUME   567560.743 4219914.593 35.44
   LOCATION L0058832     VOLUME   567566.795 4219930.479 34.85
   LOCATION L0058833     VOLUME   567572.847 4219946.365 34.25
   LOCATION L0058834     VOLUME   567579.057 4219962.183 33.73
   LOCATION L0058835     VOLUME   567586.552 4219977.441 33.18
   LOCATION L0058836     VOLUME   567594.048 4219992.700 32.85
   LOCATION L0058837     VOLUME   567601.543 4220007.958 32.73
   LOCATION L0058838     VOLUME   567609.038 4220023.217 32.63
   LOCATION L0058839     VOLUME   567616.533 4220038.475 32.55
   LOCATION L0058840     VOLUME   567624.029 4220053.734 32.44
   LOCATION L0058841     VOLUME   567631.524 4220068.992 32.31
   LOCATION L0058842     VOLUME   567639.019 4220084.251 32.16
   LOCATION L0058843     VOLUME   567646.514 4220099.509 32.03
   LOCATION L0058844     VOLUME   567654.010 4220114.767 31.85
   LOCATION L0058845     VOLUME   567661.505 4220130.026 31.64
   LOCATION L0058846     VOLUME   567669.000 4220145.284 31.45
   LOCATION L0058847     VOLUME   567676.495 4220160.543 31.38
   LOCATION L0058848     VOLUME   567683.991 4220175.801 31.02
   LOCATION L0058849     VOLUME   567691.486 4220191.060 30.54
   LOCATION L0058850     VOLUME   567698.981 4220206.318 30.34
   LOCATION L0058851     VOLUME   567706.476 4220221.577 30.42
   LOCATION L0058852     VOLUME   567713.972 4220236.835 30.58
   LOCATION L0058853     VOLUME   567721.467 4220252.094 30.69
   LOCATION L0058854     VOLUME   567728.962 4220267.352 30.70
   LOCATION L0058855     VOLUME   567736.457 4220282.611 30.69
   LOCATION L0058856     VOLUME   567743.953 4220297.869 30.69
   LOCATION L0058857     VOLUME   567751.448 4220313.128 30.76
   LOCATION L0058858     VOLUME   567758.943 4220328.386 30.84
   LOCATION L0058859     VOLUME   567766.438 4220343.645 30.88
   LOCATION L0058860     VOLUME   567773.934 4220358.903 30.96
   LOCATION L0058861     VOLUME   567781.429 4220374.162 31.20
   LOCATION L0058862     VOLUME   567788.924 4220389.420 31.39
   LOCATION L0058863     VOLUME   567796.419 4220404.679 32.33
   LOCATION L0058864     VOLUME   567803.915 4220419.937 33.41
   LOCATION L0058865     VOLUME   567811.410 4220435.196 32.71
   LOCATION L0058866     VOLUME   567818.905 4220450.454 32.75
   LOCATION L0058867     VOLUME   567826.400 4220465.713 33.56
   LOCATION L0058868     VOLUME   567833.896 4220480.971 33.23
   LOCATION L0058869     VOLUME   567841.391 4220496.230 32.82
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LOCATION	L0058870	VOLUME	567848.886	4220511.488 33.10
LOCATION	L0058871	VOLUME	567856.381	4220526.746 32.52
LOCATION	L0058872	VOLUME	567863.877	4220542.005 31.05
LOCATION	L0058873	VOLUME	567871.372	4220557.263 30.88
LOCATION	L0058874	VOLUME	567878.867	4220572.522 30.28
LOCATION	L0058875	VOLUME	567886.362	4220587.780 29.98
LOCATION	L0058876	VOLUME	567893.858	4220603.039 29.33
LOCATION	L0058877	VOLUME	567901.353	4220618.297 28.52
LOCATION	L0058878	VOLUME	567908.848	4220633.556 27.93
LOCATION	L0058879	VOLUME	567916.343	4220648.814 27.15
LOCATION	L0058880	VOLUME	567923.839	4220664.073 26.50
LOCATION	L0058881	VOLUME	567931.334	4220679.331 26.57
LOCATION	L0058882	VOLUME	567938.829	4220694.590 26.64
LOCATION	L0058883	VOLUME	567946.324	4220709.848 26.64
LOCATION	L0058884	VOLUME	567953.820	4220725.107 26.70
LOCATION	L0058885	VOLUME	567961.315	4220740.365 26.79
LOCATION	L0058886	VOLUME	567968.810	4220755.624 26.83
LOCATION	L0058887	VOLUME	567976.305	4220770.882 26.85
LOCATION	L0058888	VOLUME	567983.801	4220786.141 26.84
LOCATION	L0058889	VOLUME	567991.296	4220801.399 27.47
LOCATION	L0058890	VOLUME	567998.791	4220816.658 28.06
LOCATION	L0058891	VOLUME	568006.286	4220831.916 28.16
LOCATION	L0058892	VOLUME	568013.782	4220847.175 28.23
LOCATION	L0058893	VOLUME	568021.277	4220862.433 28.35
LOCATION	L0058894	VOLUME	568028.772	4220877.692 28.46
LOCATION	L0058895	VOLUME	568036.267	4220892.950 28.88
LOCATION	L0058896	VOLUME	568043.763	4220908.208 29.32
LOCATION	L0058897	VOLUME	568051.258	4220923.467 29.44
LOCATION	L0058898	VOLUME	568058.753	4220938.725 29.52
LOCATION	L0058899	VOLUME	568066.248	4220953.984 29.41
LOCATION	L0058900	VOLUME	568073.744	4220969.242 29.55
LOCATION	L0058901	VOLUME	568081.239	4220984.501 29.55
LOCATION	L0058902	VOLUME	568088.734	4220999.759 29.60
LOCATION	L0058903	VOLUME	568096.229	4221015.018 29.60
LOCATION	L0058904	VOLUME	568103.725	4221030.276 29.65
LOCATION	L0058905	VOLUME	568111.220	4221045.535 29.73
LOCATION	L0058906	VOLUME	568118.715	4221060.793 29.94
LOCATION	L0058907	VOLUME	568126.210	4221076.052 30.52
LOCATION	L0058908	VOLUME	568133.706	4221091.310 30.92
LOCATION	L0058909	VOLUME	568141.248	4221106.545 31.11
LOCATION	L0058910	VOLUME	568148.951	4221121.700 31.23
LOCATION	L0058911	VOLUME	568156.654	4221136.855 31.49
LOCATION	L0058912	VOLUME	568164.357	4221152.009 31.72
LOCATION	L0058913	VOLUME	568172.060	4221167.164 31.81
LOCATION	L0058914	VOLUME	568179.763	4221182.319 31.92
LOCATION	L0058915	VOLUME	568187.466	4221197.473 31.93
LOCATION	L0058916	VOLUME	568195.169	4221212.628 31.91
LOCATION	L0058917	VOLUME	568202.872	4221227.783 31.90
LOCATION	L0058918	VOLUME	568210.575	4221242.937 31.89

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   LOCATION L0058919     VOLUME   568218.278 4221258.092 31.88
   LOCATION L0058920     VOLUME   568225.981 4221273.247 31.92
   LOCATION L0058921     VOLUME   568233.684 4221288.401 32.09
   LOCATION L0058922     VOLUME   568241.387 4221303.556 32.47
   LOCATION L0058923     VOLUME   568249.090 4221318.711 32.90
   LOCATION L0058924     VOLUME   568256.793 4221333.865 33.63
   LOCATION L0058925     VOLUME   568264.496 4221349.020 34.68
   LOCATION L0058926     VOLUME   568272.199 4221364.175 35.77
   LOCATION L0058927     VOLUME   568279.902 4221379.329 36.84
   LOCATION L0058928     VOLUME   568287.605 4221394.484 37.74
   LOCATION L0058929     VOLUME   568295.308 4221409.638 38.36
   LOCATION L0058930     VOLUME   568303.011 4221424.793 39.08
   LOCATION L0058931     VOLUME   568310.714 4221439.948 40.08
   LOCATION L0058932     VOLUME   568318.417 4221455.102 41.78
   LOCATION L0058933     VOLUME   568326.120 4221470.257 42.81
   LOCATION L0058934     VOLUME   568333.823 4221485.412 43.21
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC I-80 SB
** PREFIX
** Length of Side = 17.00
** Configuration = Adjacent
** Emission Rate = 0.0002937
** Vertical Dimension = 6.12
** SZINIT = 2.85
** Nodes = 4
** 568328.025, 4221523.190, 42.78, 3.06, 7.91
** 568122.429, 4221110.487, 31.15, 3.06, 7.91
** 567560.617, 4219964.990, 34.58, 3.06, 7.91
** 567491.266, 4219772.373, 37.85, 3.06, 7.91
** ----------------------------------------------------------------
   LOCATION L0059161     VOLUME   568324.235 4221515.582 43.02
   LOCATION L0059162     VOLUME   568316.655 4221500.366 43.57
   LOCATION L0059163     VOLUME   568309.075 4221485.150 42.17
   LOCATION L0059164     VOLUME   568301.494 4221469.933 40.63
   LOCATION L0059165     VOLUME   568293.914 4221454.717 39.27
   LOCATION L0059166     VOLUME   568286.334 4221439.500 38.64
   LOCATION L0059167     VOLUME   568278.753 4221424.284 38.20
   LOCATION L0059168     VOLUME   568271.173 4221409.068 37.65
   LOCATION L0059169     VOLUME   568263.592 4221393.851 36.21
   LOCATION L0059170     VOLUME   568256.012 4221378.635 34.55
   LOCATION L0059171     VOLUME   568248.432 4221363.418 33.36
   LOCATION L0059172     VOLUME   568240.851 4221348.202 32.72
   LOCATION L0059173     VOLUME   568233.271 4221332.986 32.40
   LOCATION L0059174     VOLUME   568225.691 4221317.769 32.18
   LOCATION L0059175     VOLUME   568218.110 4221302.553 31.95
   LOCATION L0059176     VOLUME   568210.530 4221287.337 31.70
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LOCATION	L0059177	VOLUME	568202.950	4221272.120	31.59
LOCATION	L0059178	VOLUME	568195.369	4221256.904	31.60
LOCATION	L0059179	VOLUME	568187.789	4221241.687	31.60
LOCATION	L0059180	VOLUME	568180.209	4221226.471	31.61
LOCATION	L0059181	VOLUME	568172.628	4221211.255	31.63
LOCATION	L0059182	VOLUME	568165.048	4221196.038	31.63
LOCATION	L0059183	VOLUME	568157.468	4221180.822	31.64
LOCATION	L0059184	VOLUME	568149.887	4221165.605	31.64
LOCATION	L0059185	VOLUME	568142.307	4221150.389	31.53
LOCATION	L0059186	VOLUME	568134.727	4221135.173	31.38
LOCATION	L0059187	VOLUME	568127.146	4221119.956	31.31
LOCATION	L0059188	VOLUME	568119.602	4221104.722	30.83
LOCATION	L0059189	VOLUME	568112.116	4221089.459	30.25
LOCATION	L0059190	VOLUME	568104.630	4221074.196	29.61
LOCATION	L0059191	VOLUME	568097.144	4221058.933	29.17
LOCATION	L0059192	VOLUME	568089.658	4221043.670	29.09
LOCATION	L0059193	VOLUME	568082.172	4221028.407	29.03
LOCATION	L0059194	VOLUME	568074.687	4221013.144	29.08
LOCATION	L0059195	VOLUME	568067.201	4220997.881	29.09
LOCATION	L0059196	VOLUME	568059.715	4220982.617	29.08
LOCATION	L0059197	VOLUME	568052.229	4220967.354	29.13
LOCATION	L0059198	VOLUME	568044.743	4220952.091	29.09
LOCATION	L0059199	VOLUME	568037.257	4220936.828	29.09
LOCATION	L0059200	VOLUME	568029.772	4220921.565	29.11
LOCATION	L0059201	VOLUME	568022.286	4220906.302	29.03
LOCATION	L0059202	VOLUME	568014.800	4220891.039	28.66
LOCATION	L0059203	VOLUME	568007.314	4220875.776	28.58
LOCATION	L0059204	VOLUME	567999.828	4220860.513	28.36
LOCATION	L0059205	VOLUME	567992.342	4220845.250	28.23
LOCATION	L0059206	VOLUME	567984.857	4220829.986	28.13
LOCATION	L0059207	VOLUME	567977.371	4220814.723	28.03
LOCATION	L0059208	VOLUME	567969.885	4220799.460	27.57
LOCATION	L0059209	VOLUME	567962.399	4220784.197	27.35
LOCATION	L0059210	VOLUME	567954.913	4220768.934	27.15
LOCATION	L0059211	VOLUME	567947.427	4220753.671	26.84
LOCATION	L0059212	VOLUME	567939.942	4220738.408	26.72
LOCATION	L0059213	VOLUME	567932.456	4220723.145	26.69
LOCATION	L0059214	VOLUME	567924.970	4220707.882	26.72
LOCATION	L0059215	VOLUME	567917.484	4220692.618	26.79
LOCATION	L0059216	VOLUME	567909.998	4220677.355	26.75
LOCATION	L0059217	VOLUME	567902.512	4220662.092	26.58
LOCATION	L0059218	VOLUME	567895.027	4220646.829	27.14
LOCATION	L0059219	VOLUME	567887.541	4220631.566	27.74
LOCATION	L0059220	VOLUME	567880.055	4220616.303	28.58
LOCATION	L0059221	VOLUME	567872.569	4220601.040	29.96
LOCATION	L0059222	VOLUME	567865.083	4220585.777	30.28
LOCATION	L0059223	VOLUME	567857.597	4220570.514	30.33
LOCATION	L0059224	VOLUME	567850.112	4220555.251	30.76
LOCATION	L0059225	VOLUME	567842.626	4220539.987	30.87

LOCATION	L0059226	VOLUME	567835.140	4220524.724	30.78
LOCATION	L0059227	VOLUME	567827.654	4220509.461	30.74
LOCATION	L0059228	VOLUME	567820.168	4220494.198	31.14
LOCATION	L0059229	VOLUME	567812.683	4220478.935	30.84
LOCATION	L0059230	VOLUME	567805.197	4220463.672	30.93
LOCATION	L0059231	VOLUME	567797.711	4220448.409	30.95
LOCATION	L0059232	VOLUME	567790.225	4220433.146	30.83
LOCATION	L0059233	VOLUME	567782.739	4220417.883	30.69
LOCATION	L0059234	VOLUME	567775.253	4220402.620	30.67
LOCATION	L0059235	VOLUME	567767.768	4220387.356	30.60
LOCATION	L0059236	VOLUME	567760.282	4220372.093	30.48
LOCATION	L0059237	VOLUME	567752.796	4220356.830	30.41
LOCATION	L0059238	VOLUME	567745.310	4220341.567	30.37
LOCATION	L0059239	VOLUME	567737.824	4220326.304	30.35
LOCATION	L0059240	VOLUME	567730.338	4220311.041	30.34
LOCATION	L0059241	VOLUME	567722.853	4220295.778	30.33
LOCATION	L0059242	VOLUME	567715.367	4220280.515	30.34
LOCATION	L0059243	VOLUME	567707.881	4220265.252	30.33
LOCATION	L0059244	VOLUME	567700.395	4220249.988	30.23
LOCATION	L0059245	VOLUME	567692.909	4220234.725	30.07
LOCATION	L0059246	VOLUME	567685.423	4220219.462	30.11
LOCATION	L0059247	VOLUME	567677.938	4220204.199	30.45
LOCATION	L0059248	VOLUME	567670.452	4220188.936	30.98
LOCATION	L0059249	VOLUME	567662.966	4220173.673	31.56
LOCATION	L0059250	VOLUME	567655.480	4220158.410	31.95
LOCATION	L0059251	VOLUME	567647.994	4220143.147	32.20
LOCATION	L0059252	VOLUME	567640.508	4220127.884	32.43
LOCATION	L0059253	VOLUME	567633.023	4220112.621	32.60
LOCATION	L0059254	VOLUME	567625.537	4220097.357	32.77
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LOCATION	L0059256	VOLUME	567610.565	4220066.831	33.04
LOCATION	L0059257	VOLUME	567603.079	4220051.568	33.18
LOCATION	L0059258	VOLUME	567595.593	4220036.305	33.36
LOCATION	L0059259	VOLUME	567588.108	4220021.042	33.60
LOCATION	L0059260	VOLUME	567580.622	4220005.779	33.87
LOCATION	L0059261	VOLUME	567573.136	4219990.516	34.23
LOCATION	L0059262	VOLUME	567565.650	4219975.253	34.73
LOCATION	L0059263	VOLUME	567558.730	4219959.750	35.25
LOCATION	L0059264	VOLUME	567552.971	4219943.755	35.74
LOCATION	L0059265	VOLUME	567547.212	4219927.760	36.26
LOCATION	L0059266	VOLUME	567541.453	4219911.765	36.48
LOCATION	L0059267	VOLUME	567535.695	4219895.770	36.37
LOCATION	L0059268	VOLUME	567529.936	4219879.776	36.37
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LOCATION	L0059271	VOLUME	567512.659	4219831.791	37.16
LOCATION	L0059272	VOLUME	567506.900	4219815.796	37.36
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LOCATION	L0059274	VOLUME	567495.382	4219783.806	37.72

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SO FINISHED
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RE FINISHED
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** AERMOD Meteorology Pathway
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   SURFDATA 93227 2009 Napa_County_Airport
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 4.3 METERS
ME FINISHED
**
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** AERMOD Output Pathway
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**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "NORTHGATE VALLEJO_I-80.AD\01H1GALL.PLT" 31
   PLOTFILE 24 ALL 1ST "NORTHGATE VALLEJO_I-80.AD\24H1GALL.PLT" 32
   PLOTFILE ANNUAL ALL "NORTHGATE VALLEJO_I-80.AD\AN00GALL.PLT" 33
   SUMMFILE "Northgate Vallejo_I-80.sum"
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** Project Parameters
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** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
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** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 2/1/2019
** File: C:\Lakes\AERMOD View\Northgate Vallejo_I-80\Northgate Vallejo_I-80.ADI
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** AERMOD Control Pathway
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   MODELOPT DFAULT CONC
   AVERTIME 1 24 ANNUAL
   URBANOPT 445458 Solano_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Northgate Vallejo_I-80.err"
CO FINISHED
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** AERMOD Source Pathway
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**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC I-80 NB
** PREFIX
** Length of Side = 17.00
** Configuration = Adjacent
** Emission Rate = 0.0002937
** Vertical Dimension = 6.12
** SZINIT = 2.85
** Nodes = 4
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** 567578.234, 4219960.508, 33.44, 3.06, 7.91
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LOCATION	L0058874	VOLUME	567878.867	4220572.522 30.28
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LOCATION	L0058876	VOLUME	567893.858	4220603.039 29.33
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LOCATION	L0058879	VOLUME	567916.343	4220648.814 27.15
LOCATION	L0058880	VOLUME	567923.839	4220664.073 26.50
LOCATION	L0058881	VOLUME	567931.334	4220679.331 26.57
LOCATION	L0058882	VOLUME	567938.829	4220694.590 26.64
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LOCATION	L0058884	VOLUME	567953.820	4220725.107 26.70
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LOCATION	L0058887	VOLUME	567976.305	4220770.882 26.85
LOCATION	L0058888	VOLUME	567983.801	4220786.141 26.84
LOCATION	L0058889	VOLUME	567991.296	4220801.399 27.47
LOCATION	L0058890	VOLUME	567998.791	4220816.658 28.06
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LOCATION	L0058893	VOLUME	568021.277	4220862.433 28.35
LOCATION	L0058894	VOLUME	568028.772	4220877.692 28.46
LOCATION	L0058895	VOLUME	568036.267	4220892.950 28.88
LOCATION	L0058896	VOLUME	568043.763	4220908.208 29.32
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LOCATION	L0058898	VOLUME	568058.753	4220938.725 29.52
LOCATION	L0058899	VOLUME	568066.248	4220953.984 29.41
LOCATION	L0058900	VOLUME	568073.744	4220969.242 29.55
LOCATION	L0058901	VOLUME	568081.239	4220984.501 29.55
LOCATION	L0058902	VOLUME	568088.734	4220999.759 29.60
LOCATION	L0058903	VOLUME	568096.229	4221015.018 29.60
LOCATION	L0058904	VOLUME	568103.725	4221030.276 29.65
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LOCATION	L0058909	VOLUME	568141.248	4221106.545 31.11
LOCATION	L0058910	VOLUME	568148.951	4221121.700 31.23
LOCATION	L0058911	VOLUME	568156.654	4221136.855 31.49
LOCATION	L0058912	VOLUME	568164.357	4221152.009 31.72
LOCATION	L0058913	VOLUME	568172.060	4221167.164 31.81
LOCATION	L0058914	VOLUME	568179.763	4221182.319 31.92
LOCATION	L0058915	VOLUME	568187.466	4221197.473 31.93
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   LOCATION L0058921     VOLUME   568233.684 4221288.401 32.09
   LOCATION L0058922     VOLUME   568241.387 4221303.556 32.47
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   LOCATION L0058924     VOLUME   568256.793 4221333.865 33.63
   LOCATION L0058925     VOLUME   568264.496 4221349.020 34.68
   LOCATION L0058926     VOLUME   568272.199 4221364.175 35.77
   LOCATION L0058927     VOLUME   568279.902 4221379.329 36.84
   LOCATION L0058928     VOLUME   568287.605 4221394.484 37.74
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** End of LINE VOLUME Source ID = SLINE1
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC I-80 SB
** PREFIX
** Length of Side = 17.00
** Configuration = Adjacent
** Emission Rate = 0.0002937
** Vertical Dimension = 6.12
** SZINIT = 2.85
** Nodes = 4
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** 568122.429, 4221110.487, 31.15, 3.06, 7.91
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   LOCATION L0059163     VOLUME   568309.075 4221485.150 42.17
   LOCATION L0059164     VOLUME   568301.494 4221469.933 40.63
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   LOCATION L0059166     VOLUME   568286.334 4221439.500 38.64
   LOCATION L0059167     VOLUME   568278.753 4221424.284 38.20
   LOCATION L0059168     VOLUME   568271.173 4221409.068 37.65
   LOCATION L0059169     VOLUME   568263.592 4221393.851 36.21
   LOCATION L0059170     VOLUME   568256.012 4221378.635 34.55
   LOCATION L0059171     VOLUME   568248.432 4221363.418 33.36
   LOCATION L0059172     VOLUME   568240.851 4221348.202 32.72
   LOCATION L0059173     VOLUME   568233.271 4221332.986 32.40
   LOCATION L0059174     VOLUME   568225.691 4221317.769 32.18
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LOCATION	L0059187	VOLUME	568127.146	4221119.956	31.31
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LOCATION	L0059197	VOLUME	568052.229	4220967.354	29.13
LOCATION	L0059198	VOLUME	568044.743	4220952.091	29.09
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LOCATION	L0059200	VOLUME	568029.772	4220921.565	29.11
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LOCATION	L0059202	VOLUME	568014.800	4220891.039	28.66
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LOCATION	L0059204	VOLUME	567999.828	4220860.513	28.36
LOCATION	L0059205	VOLUME	567992.342	4220845.250	28.23
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LOCATION	L0059225	VOLUME	567842.626	4220539.987	30.87

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LOCATION	L0059227	VOLUME	567827.654	4220509.461	30.74
LOCATION	L0059228	VOLUME	567820.168	4220494.198	31.14
LOCATION	L0059229	VOLUME	567812.683	4220478.935	30.84
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LOCATION	L0059255	VOLUME	567618.051	4220082.094	32.92
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LOCATION	L0059264	VOLUME	567552.971	4219943.755	35.74
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LOCATION	L0059266	VOLUME	567541.453	4219911.765	36.48
LOCATION	L0059267	VOLUME	567535.695	4219895.770	36.37
LOCATION	L0059268	VOLUME	567529.936	4219879.776	36.37
LOCATION	L0059269	VOLUME	567524.177	4219863.781	36.60
LOCATION	L0059270	VOLUME	567518.418	4219847.786	36.85
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LOCATION	L0059273	VOLUME	567501.141	4219799.801	37.55
LOCATION	L0059274	VOLUME	567495.382	4219783.806	37.72

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** Source Parameters **
** LINE VOLUME Source ID = SLINE1
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   SRCPARAM L0058830     0.000002622      3.06      7.91      2.85
   SRCPARAM L0058831     0.000002622      3.06      7.91      2.85
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   SRCPARAM L0058846     0.000002622      3.06      7.91      2.85
   SRCPARAM L0058847     0.000002622      3.06      7.91      2.85
   SRCPARAM L0058848     0.000002622      3.06      7.91      2.85
   SRCPARAM L0058849     0.000002622      3.06      7.91      2.85
   SRCPARAM L0058850     0.000002622      3.06      7.91      2.85
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   SRCPARAM L0059273     0.000002576      3.06      7.91      2.85
   SRCPARAM L0059274     0.000002576      3.06      7.91      2.85
** ------------------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Northgate Vallejo_I-80.rou"
RE FINISHED
**
```

```
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE NapaCountyAirport_MetData\724955.SFC
   PROFFILE NapaCountyAirport_MetData\724955.PFL
   SURFDATA 93227 2009 Napa_County_Airport
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 4.3 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "NORTHGATE VALLEJO_I-80.AD\01H1GALL.PLT" 31
   PLOTFILE 24 ALL 1ST "NORTHGATE VALLEJO_I-80.AD\24H1GALL.PLT" 32
   PLOTFILE ANNUAL ALL "NORTHGATE VALLEJO_I-80.AD\AN00GALL.PLT" 33
   SUMMFILE "Northgate Vallejo_I-80.sum"
OU FINISHED

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION  14134 ***   ***
                       ***       20:51:51

                                 PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.
```

```
  --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   226 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    445458.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  2 Short Term Average(s) of:   1-HR  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:    226 Source(s);       1 Source Group(s); and      88
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    226 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
```

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 4.30 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: Northgate Vallejo_I-80.err

**File for Summary of Results: Northgate Vallejo_I-80.sum

*** AERMOD - VERSION 18081 *** *** C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H *** 02/01/19
*** AERMET - VERSION 14134 *** *** *** 20:51:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0058823	0	0.26220E-05	567512.3	4219787.5	37.7	3.06	7.91			

2.85	YES							
L0058824		0	0.26220E-05	567518.4	4219803.4	37.5	3.06	7.91
2.85	YES							
L0058825		0	0.26220E-05	567524.4	4219819.3	37.3	3.06	7.91
2.85	YES							
L0058826		0	0.26220E-05	567530.5	4219835.2	36.9	3.06	7.91
2.85	YES							
L0058827		0	0.26220E-05	567536.5	4219851.0	36.4	3.06	7.91
2.85	YES							
L0058828		0	0.26220E-05	567542.6	4219866.9	36.0	3.06	7.91
2.85	YES							
L0058829		0	0.26220E-05	567548.6	4219882.8	35.9	3.06	7.91
2.85	YES							
L0058830		0	0.26220E-05	567554.7	4219898.7	35.8	3.06	7.91
2.85	YES							
L0058831		0	0.26220E-05	567560.7	4219914.6	35.4	3.06	7.91
2.85	YES							
L0058832		0	0.26220E-05	567566.8	4219930.5	34.8	3.06	7.91
2.85	YES							
L0058833		0	0.26220E-05	567572.8	4219946.4	34.2	3.06	7.91
2.85	YES							
L0058834		0	0.26220E-05	567579.1	4219962.2	33.7	3.06	7.91
2.85	YES							
L0058835		0	0.26220E-05	567586.6	4219977.4	33.2	3.06	7.91
2.85	YES							
L0058836		0	0.26220E-05	567594.0	4219992.7	32.8	3.06	7.91
2.85	YES							
L0058837		0	0.26220E-05	567601.5	4220008.0	32.7	3.06	7.91
2.85	YES							
L0058838		0	0.26220E-05	567609.0	4220023.2	32.6	3.06	7.91
2.85	YES							
L0058839		0	0.26220E-05	567616.5	4220038.5	32.5	3.06	7.91
2.85	YES							
L0058840		0	0.26220E-05	567624.0	4220053.7	32.4	3.06	7.91
2.85	YES							
L0058841		0	0.26220E-05	567631.5	4220069.0	32.3	3.06	7.91
2.85	YES							
L0058842		0	0.26220E-05	567639.0	4220084.3	32.2	3.06	7.91
2.85	YES							
L0058843		0	0.26220E-05	567646.5	4220099.5	32.0	3.06	7.91
2.85	YES							
L0058844		0	0.26220E-05	567654.0	4220114.8	31.9	3.06	7.91
2.85	YES							
L0058845		0	0.26220E-05	567661.5	4220130.0	31.6	3.06	7.91
2.85	YES							
L0058846		0	0.26220E-05	567669.0	4220145.3	31.4	3.06	7.91
2.85	YES							
L0058847		0	0.26220E-05	567676.5	4220160.5	31.4	3.06	7.91
2.85	YES							

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 L0058848         0   0.26220E-05  567684.0 4220175.8    31.0     3.06     7.91
2.85     YES
 L0058849         0   0.26220E-05  567691.5 4220191.1    30.5     3.06     7.91
2.85     YES
 L0058850         0   0.26220E-05  567699.0 4220206.3    30.3     3.06     7.91
2.85     YES
 L0058851         0   0.26220E-05  567706.5 4220221.6    30.4     3.06     7.91
2.85     YES
 L0058852         0   0.26220E-05  567714.0 4220236.8    30.6     3.06     7.91
2.85     YES
 L0058853         0   0.26220E-05  567721.5 4220252.1    30.7     3.06     7.91
2.85     YES
 L0058854         0   0.26220E-05  567729.0 4220267.4    30.7     3.06     7.91
2.85     YES
 L0058855         0   0.26220E-05  567736.5 4220282.6    30.7     3.06     7.91
2.85     YES
 L0058856         0   0.26220E-05  567744.0 4220297.9    30.7     3.06     7.91
2.85     YES
 L0058857         0   0.26220E-05  567751.4 4220313.1    30.8     3.06     7.91
2.85     YES
 L0058858         0   0.26220E-05  567758.9 4220328.4    30.8     3.06     7.91
2.85     YES
 L0058859         0   0.26220E-05  567766.4 4220343.6    30.9     3.06     7.91
2.85     YES
 L0058860         0   0.26220E-05  567773.9 4220358.9    31.0     3.06     7.91
2.85     YES
 L0058861         0   0.26220E-05  567781.4 4220374.2    31.2     3.06     7.91
2.85     YES
 L0058862         0   0.26220E-05  567788.9 4220389.4    31.4     3.06     7.91
2.85     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION  14134 ***   ***
                      ***        20:51:51

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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L0058863	0	0.26220E-05	567796.4	4220404.7	32.3	3.06	7.91	2.85 YES
L0058864	0	0.26220E-05	567803.9	4220419.9	33.4	3.06	7.91	2.85 YES
L0058865	0	0.26220E-05	567811.4	4220435.2	32.7	3.06	7.91	2.85 YES
L0058866	0	0.26220E-05	567818.9	4220450.5	32.8	3.06	7.91	2.85 YES
L0058867	0	0.26220E-05	567826.4	4220465.7	33.6	3.06	7.91	2.85 YES
L0058868	0	0.26220E-05	567833.9	4220481.0	33.2	3.06	7.91	2.85 YES
L0058869	0	0.26220E-05	567841.4	4220496.2	32.8	3.06	7.91	2.85 YES
L0058870	0	0.26220E-05	567848.9	4220511.5	33.1	3.06	7.91	2.85 YES
L0058871	0	0.26220E-05	567856.4	4220526.7	32.5	3.06	7.91	2.85 YES
L0058872	0	0.26220E-05	567863.9	4220542.0	31.1	3.06	7.91	2.85 YES
L0058873	0	0.26220E-05	567871.4	4220557.3	30.9	3.06	7.91	2.85 YES
L0058874	0	0.26220E-05	567878.9	4220572.5	30.3	3.06	7.91	2.85 YES
L0058875	0	0.26220E-05	567886.4	4220587.8	30.0	3.06	7.91	2.85 YES
L0058876	0	0.26220E-05	567893.9	4220603.0	29.3	3.06	7.91	2.85 YES
L0058877	0	0.26220E-05	567901.4	4220618.3	28.5	3.06	7.91	2.85 YES
L0058878	0	0.26220E-05	567908.8	4220633.6	27.9	3.06	7.91	2.85 YES
L0058879	0	0.26220E-05	567916.3	4220648.8	27.2	3.06	7.91	2.85 YES
L0058880	0	0.26220E-05	567923.8	4220664.1	26.5	3.06	7.91	2.85 YES
L0058881	0	0.26220E-05	567931.3	4220679.3	26.6	3.06	7.91	2.85 YES
L0058882	0	0.26220E-05	567938.8	4220694.6	26.6	3.06	7.91	2.85 YES
L0058883	0	0.26220E-05	567946.3	4220709.8	26.6	3.06	7.91	2.85 YES
L0058884	0	0.26220E-05	567953.8	4220725.1	26.7	3.06	7.91	2.85 YES
L0058885	0	0.26220E-05	567961.3	4220740.4	26.8	3.06	7.91	2.85 YES
L0058886	0	0.26220E-05	567968.8	4220755.6	26.8	3.06	7.91	

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2.85     YES
 L0058887         0   0.26220E-05  567976.3 4220770.9    26.9     3.06     7.91
2.85     YES
 L0058888         0   0.26220E-05  567983.8 4220786.1    26.8     3.06     7.91
2.85     YES
 L0058889         0   0.26220E-05  567991.3 4220801.4    27.5     3.06     7.91
2.85     YES
 L0058890         0   0.26220E-05  567998.8 4220816.7    28.1     3.06     7.91
2.85     YES
 L0058891         0   0.26220E-05  568006.3 4220831.9    28.2     3.06     7.91
2.85     YES
 L0058892         0   0.26220E-05  568013.8 4220847.2    28.2     3.06     7.91
2.85     YES
 L0058893         0   0.26220E-05  568021.3 4220862.4    28.4     3.06     7.91
2.85     YES
 L0058894         0   0.26220E-05  568028.8 4220877.7    28.5     3.06     7.91
2.85     YES
 L0058895         0   0.26220E-05  568036.3 4220893.0    28.9     3.06     7.91
2.85     YES
 L0058896         0   0.26220E-05  568043.8 4220908.2    29.3     3.06     7.91
2.85     YES
 L0058897         0   0.26220E-05  568051.3 4220923.5    29.4     3.06     7.91
2.85     YES
 L0058898         0   0.26220E-05  568058.8 4220938.7    29.5     3.06     7.91
2.85     YES
 L0058899         0   0.26220E-05  568066.2 4220954.0    29.4     3.06     7.91
2.85     YES
 L0058900         0   0.26220E-05  568073.7 4220969.2    29.6     3.06     7.91
2.85     YES
 L0058901         0   0.26220E-05  568081.2 4220984.5    29.6     3.06     7.91
2.85     YES
 L0058902         0   0.26220E-05  568088.7 4220999.8    29.6     3.06     7.91
2.85     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION  14134 ***   ***
                       ***       20:51:51

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
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ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0058903	0	0.26220E-05	568096.2	4221015.0	29.6	3.06	7.91	2.85 YES
L0058904	0	0.26220E-05	568103.7	4221030.3	29.7	3.06	7.91	2.85 YES
L0058905	0	0.26220E-05	568111.2	4221045.5	29.7	3.06	7.91	2.85 YES
L0058906	0	0.26220E-05	568118.7	4221060.8	29.9	3.06	7.91	2.85 YES
L0058907	0	0.26220E-05	568126.2	4221076.1	30.5	3.06	7.91	2.85 YES
L0058908	0	0.26220E-05	568133.7	4221091.3	30.9	3.06	7.91	2.85 YES
L0058909	0	0.26220E-05	568141.2	4221106.5	31.1	3.06	7.91	2.85 YES
L0058910	0	0.26220E-05	568149.0	4221121.7	31.2	3.06	7.91	2.85 YES
L0058911	0	0.26220E-05	568156.7	4221136.9	31.5	3.06	7.91	2.85 YES
L0058912	0	0.26220E-05	568164.4	4221152.0	31.7	3.06	7.91	2.85 YES
L0058913	0	0.26220E-05	568172.1	4221167.2	31.8	3.06	7.91	2.85 YES
L0058914	0	0.26220E-05	568179.8	4221182.3	31.9	3.06	7.91	2.85 YES
L0058915	0	0.26220E-05	568187.5	4221197.5	31.9	3.06	7.91	2.85 YES
L0058916	0	0.26220E-05	568195.2	4221212.6	31.9	3.06	7.91	2.85 YES
L0058917	0	0.26220E-05	568202.9	4221227.8	31.9	3.06	7.91	2.85 YES
L0058918	0	0.26220E-05	568210.6	4221242.9	31.9	3.06	7.91	2.85 YES
L0058919	0	0.26220E-05	568218.3	4221258.1	31.9	3.06	7.91	2.85 YES
L0058920	0	0.26220E-05	568226.0	4221273.2	31.9	3.06	7.91	2.85 YES
L0058921	0	0.26220E-05	568233.7	4221288.4	32.1	3.06	7.91	2.85 YES
L0058922	0	0.26220E-05	568241.4	4221303.6	32.5	3.06	7.91	2.85 YES
L0058923	0	0.26220E-05	568249.1	4221318.7	32.9	3.06	7.91	2.85 YES
L0058924	0	0.26220E-05	568256.8	4221333.9	33.6	3.06	7.91	2.85 YES

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 L0058925         0   0.26220E-05  568264.5 4221349.0    34.7     3.06     7.91
2.85     YES
 L0058926         0   0.26220E-05  568272.2 4221364.2    35.8     3.06     7.91
2.85     YES
 L0058927         0   0.26220E-05  568279.9 4221379.3    36.8     3.06     7.91
2.85     YES
 L0058928         0   0.26220E-05  568287.6 4221394.5    37.7     3.06     7.91
2.85     YES
 L0058929         0   0.26220E-05  568295.3 4221409.6    38.4     3.06     7.91
2.85     YES
 L0058930         0   0.26220E-05  568303.0 4221424.8    39.1     3.06     7.91
2.85     YES
 L0058931         0   0.26220E-05  568310.7 4221439.9    40.1     3.06     7.91
2.85     YES
 L0058932         0   0.26220E-05  568318.4 4221455.1    41.8     3.06     7.91
2.85     YES
 L0058933         0   0.26220E-05  568326.1 4221470.3    42.8     3.06     7.91
2.85     YES
 L0058934         0   0.26220E-05  568333.8 4221485.4    43.2     3.06     7.91
2.85     YES
 L0059161         0   0.25760E-05  568324.2 4221515.6    43.0     3.06     7.91
2.85     YES
 L0059162         0   0.25760E-05  568316.7 4221500.4    43.6     3.06     7.91
2.85     YES
 L0059163         0   0.25760E-05  568309.1 4221485.1    42.2     3.06     7.91
2.85     YES
 L0059164         0   0.25760E-05  568301.5 4221469.9    40.6     3.06     7.91
2.85     YES
 L0059165         0   0.25760E-05  568293.9 4221454.7    39.3     3.06     7.91
2.85     YES
 L0059166         0   0.25760E-05  568286.3 4221439.5    38.6     3.06     7.91
2.85     YES
 L0059167         0   0.25760E-05  568278.8 4221424.3    38.2     3.06     7.91
2.85     YES
 L0059168         0   0.25760E-05  568271.2 4221409.1    37.6     3.06     7.91
2.85     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        20:51:51

                                  PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
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INIT. SOURCE ID	URBAN SOURCE	EMISSION RATE PART. SCALAR CATS.	(GRAMS/SEC) VARY BY	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)
L0059169	0	0.25760E-05		568263.6	4221393.9	36.2	3.06	7.91	2.85 YES
L0059170	0	0.25760E-05		568256.0	4221378.6	34.5	3.06	7.91	2.85 YES
L0059171	0	0.25760E-05		568248.4	4221363.4	33.4	3.06	7.91	2.85 YES
L0059172	0	0.25760E-05		568240.9	4221348.2	32.7	3.06	7.91	2.85 YES
L0059173	0	0.25760E-05		568233.3	4221333.0	32.4	3.06	7.91	2.85 YES
L0059174	0	0.25760E-05		568225.7	4221317.8	32.2	3.06	7.91	2.85 YES
L0059175	0	0.25760E-05		568218.1	4221302.6	31.9	3.06	7.91	2.85 YES
L0059176	0	0.25760E-05		568210.5	4221287.3	31.7	3.06	7.91	2.85 YES
L0059177	0	0.25760E-05		568203.0	4221272.1	31.6	3.06	7.91	2.85 YES
L0059178	0	0.25760E-05		568195.4	4221256.9	31.6	3.06	7.91	2.85 YES
L0059179	0	0.25760E-05		568187.8	4221241.7	31.6	3.06	7.91	2.85 YES
L0059180	0	0.25760E-05		568180.2	4221226.5	31.6	3.06	7.91	2.85 YES
L0059181	0	0.25760E-05		568172.6	4221211.3	31.6	3.06	7.91	2.85 YES
L0059182	0	0.25760E-05		568165.0	4221196.0	31.6	3.06	7.91	2.85 YES
L0059183	0	0.25760E-05		568157.5	4221180.8	31.6	3.06	7.91	2.85 YES
L0059184	0	0.25760E-05		568149.9	4221165.6	31.6	3.06	7.91	2.85 YES
L0059185	0	0.25760E-05		568142.3	4221150.4	31.5	3.06	7.91	2.85 YES
L0059186	0	0.25760E-05		568134.7	4221135.2	31.4	3.06	7.91	2.85 YES
L0059187	0	0.25760E-05		568127.1	4221120.0	31.3	3.06	7.91	2.85 YES
L0059188	0	0.25760E-05		568119.6	4221104.7	30.8	3.06	7.91	2.85 YES
L0059189	0	0.25760E-05		568112.1	4221089.5	30.2	3.06	7.91	

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2.85     YES
 L0059190         0   0.25760E-05  568104.6 4221074.2    29.6     3.06     7.91
2.85     YES
 L0059191         0   0.25760E-05  568097.1 4221058.9    29.2     3.06     7.91
2.85     YES
 L0059192         0   0.25760E-05  568089.7 4221043.7    29.1     3.06     7.91
2.85     YES
 L0059193         0   0.25760E-05  568082.2 4221028.4    29.0     3.06     7.91
2.85     YES
 L0059194         0   0.25760E-05  568074.7 4221013.1    29.1     3.06     7.91
2.85     YES
 L0059195         0   0.25760E-05  568067.2 4220997.9    29.1     3.06     7.91
2.85     YES
 L0059196         0   0.25760E-05  568059.7 4220982.6    29.1     3.06     7.91
2.85     YES
 L0059197         0   0.25760E-05  568052.2 4220967.4    29.1     3.06     7.91
2.85     YES
 L0059198         0   0.25760E-05  568044.7 4220952.1    29.1     3.06     7.91
2.85     YES
 L0059199         0   0.25760E-05  568037.3 4220936.8    29.1     3.06     7.91
2.85     YES
 L0059200         0   0.25760E-05  568029.8 4220921.6    29.1     3.06     7.91
2.85     YES
 L0059201         0   0.25760E-05  568022.3 4220906.3    29.0     3.06     7.91
2.85     YES
 L0059202         0   0.25760E-05  568014.8 4220891.0    28.7     3.06     7.91
2.85     YES
 L0059203         0   0.25760E-05  568007.3 4220875.8    28.6     3.06     7.91
2.85     YES
 L0059204         0   0.25760E-05  567999.8 4220860.5    28.4     3.06     7.91
2.85     YES
 L0059205         0   0.25760E-05  567992.3 4220845.2    28.2     3.06     7.91
2.85     YES
 L0059206         0   0.25760E-05  567984.9 4220830.0    28.1     3.06     7.91
2.85     YES
 L0059207         0   0.25760E-05  567977.4 4220814.7    28.0     3.06     7.91
2.85     YES
 L0059208         0   0.25760E-05  567969.9 4220799.5    27.6     3.06     7.91
2.85     YES
↑ *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION  14134 ***   ***
                       ***       20:51:51

                                 PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	URBAN SOURCE	INIT. SZ EMISSION RATE VARY BY
L0059209	0	0.25760E-05	567962.4	4220784.2	27.4	3.06	7.91	YES	2.85
L0059210	0	0.25760E-05	567954.9	4220768.9	27.2	3.06	7.91	YES	2.85
L0059211	0	0.25760E-05	567947.4	4220753.7	26.8	3.06	7.91	YES	2.85
L0059212	0	0.25760E-05	567939.9	4220738.4	26.7	3.06	7.91	YES	2.85
L0059213	0	0.25760E-05	567932.5	4220723.1	26.7	3.06	7.91	YES	2.85
L0059214	0	0.25760E-05	567925.0	4220707.9	26.7	3.06	7.91	YES	2.85
L0059215	0	0.25760E-05	567917.5	4220692.6	26.8	3.06	7.91	YES	2.85
L0059216	0	0.25760E-05	567910.0	4220677.4	26.8	3.06	7.91	YES	2.85
L0059217	0	0.25760E-05	567902.5	4220662.1	26.6	3.06	7.91	YES	2.85
L0059218	0	0.25760E-05	567895.0	4220646.8	27.1	3.06	7.91	YES	2.85
L0059219	0	0.25760E-05	567887.5	4220631.6	27.7	3.06	7.91	YES	2.85
L0059220	0	0.25760E-05	567880.1	4220616.3	28.6	3.06	7.91	YES	2.85
L0059221	0	0.25760E-05	567872.6	4220601.0	30.0	3.06	7.91	YES	2.85
L0059222	0	0.25760E-05	567865.1	4220585.8	30.3	3.06	7.91	YES	2.85
L0059223	0	0.25760E-05	567857.6	4220570.5	30.3	3.06	7.91	YES	2.85
L0059224	0	0.25760E-05	567850.1	4220555.3	30.8	3.06	7.91	YES	2.85
L0059225	0	0.25760E-05	567842.6	4220540.0	30.9	3.06	7.91	YES	2.85
L0059226	0	0.25760E-05	567835.1	4220524.7	30.8	3.06	7.91	YES	2.85
L0059227	0	0.25760E-05	567827.7	4220509.5	30.7	3.06	7.91	YES	2.85

L0059228	0	0.25760E-05	567820.2	4220494.2	31.1	3.06	7.91
2.85	YES						
L0059229	0	0.25760E-05	567812.7	4220478.9	30.8	3.06	7.91
2.85	YES						
L0059230	0	0.25760E-05	567805.2	4220463.7	30.9	3.06	7.91
2.85	YES						
L0059231	0	0.25760E-05	567797.7	4220448.4	30.9	3.06	7.91
2.85	YES						
L0059232	0	0.25760E-05	567790.2	4220433.1	30.8	3.06	7.91
2.85	YES						
L0059233	0	0.25760E-05	567782.7	4220417.9	30.7	3.06	7.91
2.85	YES						
L0059234	0	0.25760E-05	567775.3	4220402.6	30.7	3.06	7.91
2.85	YES						
L0059235	0	0.25760E-05	567767.8	4220387.4	30.6	3.06	7.91
2.85	YES						
L0059236	0	0.25760E-05	567760.3	4220372.1	30.5	3.06	7.91
2.85	YES						
L0059237	0	0.25760E-05	567752.8	4220356.8	30.4	3.06	7.91
2.85	YES						
L0059238	0	0.25760E-05	567745.3	4220341.6	30.4	3.06	7.91
2.85	YES						
L0059239	0	0.25760E-05	567737.8	4220326.3	30.4	3.06	7.91
2.85	YES						
L0059240	0	0.25760E-05	567730.3	4220311.0	30.3	3.06	7.91
2.85	YES						
L0059241	0	0.25760E-05	567722.9	4220295.8	30.3	3.06	7.91
2.85	YES						
L0059242	0	0.25760E-05	567715.4	4220280.5	30.3	3.06	7.91
2.85	YES						
L0059243	0	0.25760E-05	567707.9	4220265.3	30.3	3.06	7.91
2.85	YES						
L0059244	0	0.25760E-05	567700.4	4220250.0	30.2	3.06	7.91
2.85	YES						
L0059245	0	0.25760E-05	567692.9	4220234.7	30.1	3.06	7.91
2.85	YES						
L0059246	0	0.25760E-05	567685.4	4220219.5	30.1	3.06	7.91
2.85	YES						
L0059247	0	0.25760E-05	567677.9	4220204.2	30.4	3.06	7.91
2.85	YES						
L0059248	0	0.25760E-05	567670.5	4220188.9	31.0	3.06	7.91
2.85	YES						

*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
*** AERMET - VERSION 14134 *** ***
*** 20:51:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE VARY BY
L0059249	0	0.25760E-05	567663.0	4220173.7	31.6	3.06	7.91	2.85	YES	
L0059250	0	0.25760E-05	567655.5	4220158.4	31.9	3.06	7.91	2.85	YES	
L0059251	0	0.25760E-05	567648.0	4220143.1	32.2	3.06	7.91	2.85	YES	
L0059252	0	0.25760E-05	567640.5	4220127.9	32.4	3.06	7.91	2.85	YES	
L0059253	0	0.25760E-05	567633.0	4220112.6	32.6	3.06	7.91	2.85	YES	
L0059254	0	0.25760E-05	567625.5	4220097.4	32.8	3.06	7.91	2.85	YES	
L0059255	0	0.25760E-05	567618.1	4220082.1	32.9	3.06	7.91	2.85	YES	
L0059256	0	0.25760E-05	567610.6	4220066.8	33.0	3.06	7.91	2.85	YES	
L0059257	0	0.25760E-05	567603.1	4220051.6	33.2	3.06	7.91	2.85	YES	
L0059258	0	0.25760E-05	567595.6	4220036.3	33.4	3.06	7.91	2.85	YES	
L0059259	0	0.25760E-05	567588.1	4220021.0	33.6	3.06	7.91	2.85	YES	
L0059260	0	0.25760E-05	567580.6	4220005.8	33.9	3.06	7.91	2.85	YES	
L0059261	0	0.25760E-05	567573.1	4219990.5	34.2	3.06	7.91	2.85	YES	
L0059262	0	0.25760E-05	567565.7	4219975.3	34.7	3.06	7.91	2.85	YES	
L0059263	0	0.25760E-05	567558.7	4219959.8	35.2	3.06	7.91	2.85	YES	
L0059264	0	0.25760E-05	567553.0	4219943.8	35.7	3.06	7.91	2.85	YES	
L0059265	0	0.25760E-05	567547.2	4219927.8	36.3	3.06	7.91	2.85	YES	
L0059266	0	0.25760E-05	567541.5	4219911.8	36.5	3.06	7.91			

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2.85     YES
 L0059267         0   0.25760E-05  567535.7 4219895.8    36.4     3.06     7.91
2.85     YES
 L0059268         0   0.25760E-05  567529.9 4219879.8    36.4     3.06     7.91
2.85     YES
 L0059269         0   0.25760E-05  567524.2 4219863.8    36.6     3.06     7.91
2.85     YES
 L0059270         0   0.25760E-05  567518.4 4219847.8    36.8     3.06     7.91
2.85     YES
 L0059271         0   0.25760E-05  567512.7 4219831.8    37.2     3.06     7.91
2.85     YES
 L0059272         0   0.25760E-05  567506.9 4219815.8    37.4     3.06     7.91
2.85     YES
 L0059273         0   0.25760E-05  567501.1 4219799.8    37.5     3.06     7.91
2.85     YES
 L0059274         0   0.25760E-05  567495.4 4219783.8    37.7     3.06     7.91
2.85     YES
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        20:51:51

                                  PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  ALL        L0058823    , L0058824    , L0058825    , L0058826    , L0058827    ,
L0058828    , L0058829    , L0058830    ,

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L0058836    , L0058837    , L0058838    ,

             L0058839    , L0058840    , L0058841    , L0058842    , L0058843    ,
L0058844    , L0058845    , L0058846    ,

             L0058847    , L0058848    , L0058849    , L0058850    , L0058851    ,
L0058852    , L0058853    , L0058854    ,

             L0058855    , L0058856    , L0058857    , L0058858    , L0058859    ,
L0058860    , L0058861    , L0058862    ,

             L0058863    , L0058864    , L0058865    , L0058866    , L0058867    ,
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L0058868    , L0058869    , L0058870    ,

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L0059206    , L0059207    , L0059208    ,
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        20:51:51
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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L0059273 , L0059274 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

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L0059262 , L0059263 , L0059264 ,

L0059265 , L0059266 , L0059267 , L0059268 , L0059269 ,
L0059270 , L0059271 , L0059272 ,

L0059273 , L0059274 ,
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
*** AERMET - VERSION 14134 *** ***
*** 20:51:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

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(568275.0, 4220159.0, 36.9, 324.6, 0.0); (568325.0,
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↑ *** AERMOD - VERSION 18081 *** *** C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H *** 02/01/19
*** AERMET - VERSION 14134 *** *** *** 20:51:51

PAGE 13
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23,

10.80,
*** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION 14134 ***   ***
                       ***   20:51:51

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                  *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file: NapaCountyAirport_MetData\724955.SFC
                Met Version: 14134
   Profile file: NapaCountyAirport_MetData\724955.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:   93227   Upper air station no.:   23230
                  Name: NAPA_COUNTY_AIRPORT   Name:
OAKLAND/WSO_AP
                  Year: 2009   Year: 2009

 First 24 hours of scalar data
 YR MO DY JDY HR   H0   U*   W* DT/DZ ZICNV ZIMCH M-O LEN   Z0 BOWEN
ALBEDO REF WS   WD   HT REF TA   HT
- -
- - - - - - - - - - - - - - - - - - -
 09 01 01   1 01   -2.8 0.059 -9.000 -9.000 -999.   34.   6.8 0.03   0.63
1.00   1.76 111.   10.0 279.2   2.0
 09 01 01   1 02 -11.4 0.199 -9.000 -9.000 -999. 213.   62.6 0.03   0.63
1.00   3.36   98.   10.0 279.2   2.0
 09 01 01   1 03 -19.9 0.345 -9.000 -9.000 -999. 485.   187.0 0.03   0.63
1.00   5.36   94.   10.0 278.1   2.0
 09 01 01   1 04 -15.8 0.273 -9.000 -9.000 -999. 345.   117.7 0.03   0.63
1.00   4.36   93.   10.0 278.1   2.0
 09 01 01   1 05 -13.7 0.237 -9.000 -9.000 -999. 277.   88.3 0.03   0.63
1.00   3.86   93.   10.0 278.1   2.0
 09 01 01   1 06   -2.8 0.059 -9.000 -9.000 -999.   87.   6.8 0.03   0.63
1.00   1.76   92.   10.0 278.8   2.0
 09 01 01   1 07   -9.1 0.158 -9.000 -9.000 -999. 151.   39.6 0.03   0.63
1.00   2.86 105.   10.0 278.8   2.0
 09 01 01   1 08 -13.6 0.237 -9.000 -9.000 -999. 276.   88.5 0.03   0.63
1.00   3.86   93.   10.0 278.8   2.0
 09 01 01   1 09   -9.4 0.318 -9.000 -9.000 -999. 430.   311.3 0.03   0.63
0.41   4.86   97.   10.0 278.8   2.0

```
 09 01 01   1 10    4.8  0.296  0.220  0.016   81.  388.   -497.3  0.03   0.63
0.28    4.36  101.   10.0  279.2    2.0
 09 01 01   1 11   11.8  0.301  0.366  0.016  151.  396.   -210.6  0.03   0.63
0.23    4.36   94.   10.0  279.2    2.0
 09 01 01   1 12   15.7  0.335  0.450  0.016  210.  465.   -217.6  0.03   0.63
0.22    4.86   86.   10.0  279.2    2.0
 09 01 01   1 13   16.4  0.291  0.488  0.016  257.  377.   -136.4  0.02   0.63
0.22    4.36  123.   10.0  279.2    2.0
 09 01 01   1 14   13.8  0.334  0.480  0.016  291.  463.   -245.4  0.03   0.63
0.22    4.86  109.   10.0  279.2    2.0
 09 01 01   1 15    8.1  0.202  0.411  0.015  310.  229.    -92.5  0.03   0.63
0.26    2.86  102.   10.0  279.9    2.0
 09 01 01   1 16   -0.4  0.191 -9.000 -9.000 -999.  200.   1603.3  0.03   0.63
0.34    2.86  104.   10.0  279.9    2.0
 09 01 01   1 17   -6.1  0.117 -9.000 -9.000 -999.   97.     23.6  0.03   0.63
0.58    2.36  111.   10.0  279.2    2.0
 09 01 01   1 18  -11.4  0.199 -9.000 -9.000 -999.  213.     62.4  0.03   0.63
1.00    3.36   97.   10.0  278.8    2.0
 09 01 01   1 19   -9.1  0.158 -9.000 -9.000 -999.  152.     39.6  0.03   0.63
1.00    2.86   94.   10.0  278.8    2.0
 09 01 01   1 20   -9.1  0.158 -9.000 -9.000 -999.  151.     39.6  0.03   0.63
1.00    2.86   87.   10.0  278.8    2.0
 09 01 01   1 21   -2.7  0.059 -9.000 -9.000 -999.   41.      6.8  0.03   0.63
1.00    1.76   90.   10.0  279.2    2.0
 09 01 01   1 22   -6.3  0.110 -9.000 -9.000 -999.   88.     19.2  0.03   0.63
1.00    2.36   72.   10.0  279.2    2.0
 09 01 01   1 23  -11.4  0.199 -9.000 -9.000 -999.  213.     62.6  0.03   0.63
1.00    3.36  100.   10.0  279.2    2.0
 09 01 01   1 24  -11.4  0.199 -9.000 -9.000 -999.  213.     62.6  0.03   0.63
1.00    3.36   90.   10.0  279.2    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1  111.    1.76   279.3   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION  14134 ***   ***
                      ***        20:51:51

                                 PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                 INCLUDING SOURCE(S):     L0058823    , L0058824
```

, L0058825 , L0058826 , L0058827 ,
L0058828 , L0058829 , L0058830 , L0058831 , L0058832
, L0058833 , L0058834 , L0058835 ,
L0058836 , L0058837 , L0058838 , L0058839 , L0058840
, L0058841 , L0058842 , L0058843 ,
L0058844 , L0058845 , L0058846 , L0058847 , L0058848
, L0058849 , L0058850 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
568124.57	4220158.79	0.00166	568124.99	4220158.95	0.00166
568174.99	4220158.95	0.00146	568224.99	4220158.95	0.00131
568274.99	4220158.95	0.00119	568324.99	4220158.95	0.00107
568374.99	4220158.95	0.00095	568424.99	4220158.95	0.00086
568474.99	4220158.95	0.00078	568524.99	4220158.95	0.00071
568124.99	4220208.95	0.00180	568174.99	4220208.95	0.00157
568224.99	4220208.95	0.00141	568274.99	4220208.95	0.00129
568324.99	4220208.95	0.00114	568374.99	4220208.95	0.00103
568424.99	4220208.95	0.00095	568474.99	4220208.95	0.00084
568524.99	4220208.95	0.00077	568124.99	4220258.95	0.00198
568174.99	4220258.95	0.00172	568224.99	4220258.95	0.00155
568274.99	4220258.95	0.00138	568324.99	4220258.95	0.00123
568374.99	4220258.95	0.00111	568424.99	4220258.95	0.00102
568474.99	4220258.95	0.00093	568524.99	4220258.95	0.00085
568124.99	4220308.95	0.00214	568174.99	4220308.95	0.00188
568224.99	4220308.95	0.00166	568274.99		

```
4220308.95        0.00146
         568324.99    4220308.95        0.00130                   568374.99
4220308.95        0.00117
         568424.99    4220308.95        0.00108                   568474.99
4220308.95        0.00099
         568524.99    4220308.95        0.00091                   568124.99
4220358.95        0.00231
         568174.99    4220358.95        0.00202                   568224.99
4220358.95        0.00178
         568274.99    4220358.95        0.00157                   568324.99
4220358.95        0.00138
         568374.99    4220358.95        0.00125                   568424.99
4220358.95        0.00115
         568474.99    4220358.95        0.00105                   568524.99
4220358.95        0.00096
         568124.99    4220408.95        0.00250                   568174.99
4220408.95        0.00217
         568224.99    4220408.95        0.00190                   568274.99
4220408.95        0.00168
         568324.99    4220408.95        0.00150                   568374.99
4220408.95        0.00134
         568424.99    4220408.95        0.00121                   568474.99
4220408.95        0.00110
         568524.99    4220408.95        0.00100                   568124.99
4220458.95        0.00270
         568174.99    4220458.95        0.00232                   568224.99
4220458.95        0.00202
         568274.99    4220458.95        0.00178                   568324.99
4220458.95        0.00158
         568374.99    4220458.95        0.00142                   568424.99
4220458.95        0.00127
         568474.99    4220458.95        0.00115                   568524.99
4220458.95        0.00104
         568124.99    4220508.95        0.00293                   568174.99
4220508.95        0.00250
         568224.99    4220508.95        0.00217                   568274.99
4220508.95        0.00190
         568324.99    4220508.95        0.00168                   568374.99
4220508.95        0.00149
         568424.99    4220508.95        0.00134                   568474.99
4220508.95        0.00120
         568524.99    4220508.95        0.00109                   568124.99
4220558.95        0.00322
         568174.99    4220558.95        0.00272                   568224.99
4220558.95        0.00233
         568274.99    4220558.95        0.00202                   568324.99
4220558.95        0.00178
         568374.99    4220558.95        0.00157                   568424.99
4220558.95        0.00140
```

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0058823 , L0058824 , L0058825 , L0058826 , L0058827 ,
L0058828 , L0058829 , L0058830 , L0058831 , L0058832 , L0058833 , L0058834 , L0058835 ,
L0058836 , L0058837 , L0058838 , L0058839 , L0058840 , L0058841 , L0058842 , L0058843 ,
L0058844 , L0058845 , L0058846 , L0058847 , L0058848 , L0058849 , L0058850 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
568474.99	4220558.95	0.00125	568524.99	4220558.95	0.00114
568124.99	4220608.95	0.00355	568174.99	4220608.95	0.00295
568224.99	4220608.95	0.00251	568274.99	4220608.95	0.00216
568324.99	4220608.95	0.00189	568374.99	4220608.95	0.00167

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

Northgate Vallejo_I-80.ADO
INCLUDING SOURCE(S): L0058823 , L0058824
, L0058825 , L0058826 , L0058827 ,
L0058828 , L0058829 , L0058830 , L0058831 , L0058832
, L0058833 , L0058834 , L0058835 ,
L0058836 , L0058837 , L0058838 , L0058839 , L0058840
, L0058841 , L0058842 , L0058843 ,
L0058844 , L0058845 , L0058846 , L0058847 , L0058848
, L0058849 , L0058850 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
568124.57	4220158.79	0.01356	(10121307)	568124.99	4220158.95	0.01355	(10121307)
568174.99	4220158.95	0.01248	(10121307)	568224.99	4220158.95	0.01152	(11011917)
568274.99	4220158.95	0.01051	(10010124)	568324.99	4220158.95	0.00975	(10010124)
568374.99	4220158.95	0.00934	(10010124)	568424.99	4220158.95	0.00876	(10021323)
568474.99	4220158.95	0.00829	(09022824)	568524.99	4220158.95	0.00781	(10121107)
568124.99	4220208.95	0.01395	(11011917)	568174.99	4220208.95	0.01288	(10121307)
568224.99	4220208.95	0.01159	(10010124)	568274.99	4220208.95	0.01026	(13010302)
568324.99	4220208.95	0.00999	(10010124)	568374.99	4220208.95	0.00935	(10021323)
568424.99	4220208.95	0.00884	(09022824)	568474.99	4220208.95	0.00850	(09022824)
568524.99	4220208.95	0.00806	(10121107)	568124.99	4220258.95	0.01340	(11011324)
568174.99	4220258.95	0.01238	(09022824)	568224.99	4220258.95	0.01115	(11011917)
568274.99	4220258.95	0.01051	(13010302)	568324.99	4220258.95	0.01013	(10121107)
568374.99	4220258.95	0.00947	(09022824)	568424.99	4220258.95	0.00879	(12013106)
568474.99	4220258.95	0.00841	(10121107)	568524.99	4220258.95	0.00789	(11011324)
568124.99	4220308.95	0.01408	(12120504)	568174.99	4220308.95	0.01270	(12120504)

```
        568224.99   4220308.95        0.01155  (11011917)              568274.99
4220308.95        0.01070  (13010302)
        568324.99   4220308.95        0.01039  (10010124)              568374.99
4220308.95        0.00968  (09022824)
        568424.99   4220308.95        0.00893  (10121104)              568474.99
4220308.95        0.00835  (09022324)
        568524.99   4220308.95        0.00785  (10121105)              568124.99
4220358.95        0.01476  (12120504)
        568174.99   4220358.95        0.01325  (12120504)              568224.99
4220358.95        0.01199  (11011917)
        568274.99   4220358.95        0.01082  (11011917)              568324.99
4220358.95        0.01047  (11011324)
        568374.99   4220358.95        0.00946  (13010302)              568424.99
4220358.95        0.00882  (10121105)
        568474.99   4220358.95        0.00838  (10121105)              568524.99
4220358.95        0.00800  (11122408)
        568124.99   4220408.95        0.01550  (12120504)              568174.99
4220408.95        0.01386  (12120504)
        568224.99   4220408.95        0.01246  (11011917)              568274.99
4220408.95        0.01125  (11011917)
        568324.99   4220408.95        0.01029  (10010124)              568374.99
4220408.95        0.00947  (12022108)
        568424.99   4220408.95        0.00881  (10121107)              568474.99
4220408.95        0.00855  (11122408)
        568524.99   4220408.95        0.00802  (11122408)              568124.99
4220458.95        0.01630  (12120504)
        568174.99   4220458.95        0.01448  (12120504)              568224.99
4220458.95        0.01294  (11011917)
        568274.99   4220458.95        0.01164  (11011917)              568324.99
4220458.95        0.01061  (10010124)
        568374.99   4220458.95        0.00976  (12022108)              568424.99
4220458.95        0.00914  (10020706)
        568474.99   4220458.95        0.00862  (11122408)              568524.99
4220458.95        0.00832  (10121106)
        568124.99   4220508.95        0.01735  (11123022)              568174.99
4220508.95        0.01527  (11123001)
        568224.99   4220508.95        0.01380  (11123001)              568274.99
4220508.95        0.01245  (11123001)
        568324.99   4220508.95        0.01121  (11123001)              568374.99
4220508.95        0.01002  (12022108)
        568424.99   4220508.95        0.00926  (10121107)              568474.99
4220508.95        0.00878  (10121105)
        568524.99   4220508.95        0.00848  (12020719)              568124.99
4220558.95        0.01900  (11123022)
        568174.99   4220558.95        0.01653  (11123022)              568224.99
4220558.95        0.01463  (11123001)
        568274.99   4220558.95        0.01327  (11123001)              568324.99
4220558.95        0.01207  (11123001)
        568374.99   4220558.95        0.01090  (11123001)              568424.99
```

4220558.95 0.00978 (11123001)
↟ *** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
*** AERMET - VERSION 14134 *** ***
*** 20:51:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0058823 , L0058824 , L0058825 , L0058826 , L0058827 ,
L0058828 , L0058829 , L0058830 , L0058831 , L0058832 , L0058833 , L0058834 , L0058835 ,
L0058836 , L0058837 , L0058838 , L0058839 , L0058840 , L0058841 , L0058842 , L0058843 ,
L0058844 , L0058845 , L0058846 , L0058847 , L0058848 , L0058849 , L0058850 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
568474.99	4220558.95	0.00919	(10121106)	568524.99	4220558.95	0.00862	(10020624)
568124.99	4220608.95	0.02061	(09021123)	568174.99	4220608.95	0.01786	(11123022)
568224.99	4220608.95	0.01572	(11123022)	568274.99	4220608.95	0.01396	(11123001)
568324.99	4220608.95	0.01276	(11123001)	568374.99	4220608.95	0.01167	(11123001)

↟ *** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
*** AERMET - VERSION 14134 *** ***
*** 20:51:51

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: ALL *** INCLUDING SOURCE(S): L0058823 , L0058824 , L0058825 , L0058826 , L0058827 , L0058828 , L0058829 , L0058830 , L0058831 , L0058832 , L0058833 , L0058834 , L0058835 , L0058836 , L0058837 , L0058838 , L0058839 , L0058840 , L0058841 , L0058842 , L0058843 , L0058844 , L0058845 , L0058846 , L0058847 , L0058848 , L0058849 , L0058850 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
568124.57	4220158.79	0.00603c (10021924)	568124.99	4220158.95	0.00603c (10021924)
568174.99	4220158.95	0.00532c (10021924)	568224.99	4220158.95	0.00478c (12121824)
568274.99	4220158.95	0.00450c (12121824)	568324.99	4220158.95	0.00418c (12121824)
568374.99	4220158.95	0.00366c (12121824)	568424.99	4220158.95	0.00332c (10111024)
568474.99	4220158.95	0.00310c (10111024)	568524.99	4220158.95	0.00286c (10111024)
568124.99	4220208.95	0.00648c (10021924)	568174.99	4220208.95	0.00569c (10021924)
568224.99	4220208.95	0.00518c (10021924)	568274.99	4220208.95	0.00471c (12121824)
568324.99	4220208.95	0.00427c (12121824)	568374.99	4220208.95	0.00392c (12121824)
568424.99	4220208.95	0.00366c (12121824)	568474.99	4220208.95	0.00319c (10111024)
568524.99	4220208.95	0.00298c (12121824)	568124.99	4220258.95	0.00704c (10021924)
568174.99	4220258.95	0.00625c (10021924)	568224.99	4220258.95	0.00563c (10021924)
568274.99	4220258.95	0.00504c (10021924)	568324.99	4220258.95	0.00452c (10021924)
568374.99	4220258.95	0.00412c (10021924)	568424.99	4220258.95	0.00382c (12121824)
568474.99	4220258.95	0.00357c (12121824)	568524.99	4220258.95	0.00335c (12121824)
568124.99	4220308.95	0.00743c (10021924)	568174.99		

```
4220308.95        0.00667c (10021924)
        568224.99   4220308.95        0.00599c (10021924)              568274.99
4220308.95        0.00533c (10021924)
        568324.99   4220308.95        0.00482c (10021924)              568374.99
4220308.95        0.00440c (10021924)
        568424.99   4220308.95        0.00403c (10021924)              568474.99
4220308.95        0.00377c (10123024)
        568524.99   4220308.95        0.00358c (10123024)              568124.99
4220358.95        0.00783c (10021924)
        568174.99   4220358.95        0.00703c (10021924)              568224.99
4220358.95        0.00633c (10021924)
        568274.99   4220358.95        0.00566c (10021924)              568324.99
4220358.95        0.00514c (10021924)
        568374.99   4220358.95        0.00468c (10021924)              568424.99
4220358.95        0.00431c (10021924)
        568474.99   4220358.95        0.00395c (10021924)              568524.99
4220358.95        0.00369c (10123024)
        568124.99   4220408.95        0.00824c (10021924)              568174.99
4220408.95        0.00741c (10021924)
        568224.99   4220408.95        0.00665c (10021924)              568274.99
4220408.95        0.00600c (10021924)
        568324.99   4220408.95        0.00545c (10021924)              568374.99
4220408.95        0.00497c (10021924)
        568424.99   4220408.95        0.00457c (10021924)              568474.99
4220408.95        0.00418c (10021924)
        568524.99   4220408.95        0.00385c (10123024)              568124.99
4220458.95        0.00865c (10021924)
        568174.99   4220458.95        0.00774c (10021924)              568224.99
4220458.95        0.00695c (10021924)
        568274.99   4220458.95        0.00627c (10021924)              568324.99
4220458.95        0.00569c (10021924)
        568374.99   4220458.95        0.00520c (10021924)              568424.99
4220458.95        0.00482c (10021924)
        568474.99   4220458.95        0.00439c (10021924)              568524.99
4220458.95        0.00398c (10123024)
        568124.99   4220508.95        0.00914c (10021924)              568174.99
4220508.95        0.00815c (10021924)
        568224.99   4220508.95        0.00730c (10021924)              568274.99
4220508.95        0.00656c (10021924)
        568324.99   4220508.95        0.00594c (10021924)              568374.99
4220508.95        0.00548c (10021924)
        568424.99   4220508.95        0.00502c (10021924)              568474.99
4220508.95        0.00457c (10021924)
        568524.99   4220508.95        0.00414c (10021924)              568124.99
4220558.95        0.00980c (10021924)
        568174.99   4220558.95        0.00864c (10021924)              568224.99
4220558.95        0.00766c (10021924)
        568274.99   4220558.95        0.00684c (10021924)              568324.99
4220558.95        0.00617c (10021924)
```

568374.99 4220558.95 0.00568c (10021924) 568424.99 4220558.95 0.00519c (10021924)
*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
*** AERMET - VERSION 14134 *** ***
*** 20:51:51

PAGE 20
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0058823 , L0058824 , L0058825 , L0058826 , L0058827 ,
L0058828 , L0058829 , L0058830 , L0058831 , L0058832 , L0058833 , L0058834 , L0058835 ,
L0058836 , L0058837 , L0058838 , L0058839 , L0058840 , L0058841 , L0058842 , L0058843 ,
L0058844 , L0058845 , L0058846 , L0058847 , L0058848 , L0058849 , L0058850 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
568474.99	4220558.95	0.00466c	(10021924)	568524.99	4220558.95	0.00426c	(10021924)
568124.99	4220608.95	0.01048c	(10021924)	568174.99	4220608.95	0.00913c	(10021924)
568224.99	4220608.95	0.00805c	(10021924)	568274.99	4220608.95	0.00714c	(10021924)
568324.99	4220608.95	0.00642c	(10021924)	568374.99	4220608.95	0.00581c	(10021924)

*** AERMOD - VERSION 18081 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
*** AERMET - VERSION 14134 *** ***
*** 20:51:51

PAGE 21
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER 5 YEARS ***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00355 AT	(568124.99, 4220608.95, 28.11, 324.62, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00322 AT	(568124.99, 4220558.95, 28.29, 324.62, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00295 AT	(568174.99, 4220608.95, 28.48, 324.62, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00293 AT	(568124.99, 4220508.95, 27.72, 324.62, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00272 AT	(568174.99, 4220558.95, 28.89, 324.62, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00270 AT	(568124.99, 4220458.95, 28.18, 324.62, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00251 AT	(568224.99, 4220608.95, 29.39, 324.62, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00250 AT	(568174.99, 4220508.95, 28.47, 324.62, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.00250 AT	(568124.99, 4220408.95, 29.00, 324.62, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.00233 AT	(568224.99, 4220558.95, 29.83, 324.62, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
ALL	1ST HIGH VALUE IS	0.02061	ON 09021123: AT (568124.99, 4220608.95, 28.11, 324.62, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
ALL	1ST HIGH VALUE IS	0.01048c	ON 10021924: AT (568124.99, 4220608.95, 28.11, 324.62, 0.00)	DC	

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 18081 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
02/01/19
 *** AERMET - VERSION 14134 ***   ***
                      ***   20:51:51

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   1 Warning Message(s)
 A Total of   10597 Informational Message(s)

 A Total of   43872 Hours Were Processed

 A Total of   9342 Calm Hours Identified

 A Total of   1255 Missing Hours Identified (2.86 Percent)

    ******** FATAL ERROR MESSAGES ********
               *** NONE ***

    ********   WARNING MESSAGES   ********
 MX W481   43873   MAIN: Data Remaining After End of Year. Number of Hours=
       48

    ****
    *** AERMOD Finishes Successfully ***
    ****

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.8.1
** Lakes Environmental Software Inc.
** Date: 12/18/2019
** File: C:\Lakes\AERMOD View\NorthgateVallego_Gas\NorthgateVallego_Gas.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H
   MODELOPT DFAULT CONC
   AVERTIME 1 24 ANNUAL
   URBANOPT 445458 Solano_County
   POLLUTID TOG
   RUNORNOT RUN
   ERRORFIL NorthgateVallego_Gas.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION GS_TANK      AREA       567807.890  4220196.290       32.480
** DESCRSRC gas station
** Source Parameters **
   SRCPARAM GS_TANK      8.0864E-07     3.600    48.380    56.490     0.000
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED NorthgateVallego_Gas.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE NapaCountyAirport_MetData\724955.SFC
   PROFFILE NapaCountyAirport_MetData\724955.PFL
   SURFDATA 93227 2009 Napa_County_Airport
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 4.3 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST NORTHGATEVALLEGO_GAS.AD\01H1GALL.PLT 31
   PLOTFILE 24 ALL 1ST NORTHGATEVALLEGO_GAS.AD\24H1GALL.PLT 32
   PLOTFILE ANNUAL ALL NORTHGATEVALLEGO_GAS.AD\AN00GALL.PLT 33
   SUMMFILE NorthgateVallego_Gas.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.8.1
** Lakes Environmental Software Inc.
** Date: 12/18/2019
** File: C:\Lakes\AERMOD View\NorthgateVallego_Gas\NorthgateVallego_Gas.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H
   MODELOPT DFAULT CONC
   AVERTIME 1 24 ANNUAL
   URBANOPT 445458 Solano_County
   POLLUTID TOG
   RUNORNOT RUN
   ERRORFIL NorthgateVallego_Gas.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION GS_TANK      AREA       567807.890  4220196.290       32.480
** DESCRSRC gas station
** Source Parameters **
   SRCPARAM GS_TANK      8.0864E-07     3.600    48.380    56.490     0.000
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED NorthgateVallego_Gas.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE NapaCountyAirport_MetData\724955.SFC
   PROFFILE NapaCountyAirport_MetData\724955.PFL
   SURFDATA 93227 2009 Napa_County_Airport
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 4.3 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST NORTHGATEVALLEGO_GAS.AD\01H1GALL.PLT 31
   PLOTFILE 24 ALL 1ST NORTHGATEVALLEGO_GAS.AD\24H1GALL.PLT 32
   PLOTFILE ANNUAL ALL NORTHGATEVALLEGO_GAS.AD\AN00GALL.PLT 33
   SUMMFILE NorthgateVallego_Gas.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:07:01

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
```

- -
- -

```
 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    445458.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         CCVR_Sub - Meteorological data includes CCVR substitutions
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  TOG

 **Model Calculates  2 Short Term Average(s) of:   1-HR  24-HR
    and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     393
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.
```

```
 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     4.30 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   NorthgateVallego_Gas.err

 **File for Summary of Results:   NorthgateVallego_Gas.sum

 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                         ***       09:07:01

                                   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                  *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
```

```
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 GS_TANK          0   0.80864E-06  567807.9 4220196.3    32.5     3.60     48.38
 56.49      0.00     0.00     YES
↑ *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                         ***        09:07:01

                                    PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                  SOURCE IDs
 -----------                                                  ----------


  ALL        GS_TANK     ,
↑ *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                         ***        09:07:01

                                    PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                       SOURCE IDs
  --------   ---------                                       ----------


              445458.   GS_TANK     ,
↑ *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(567539.9, 4220159.2, 36.0, 74.5, 0.0); (567589.9, 4220159.2, 34.5, 74.5, 0.0);
(567639.9, 4220159.2, 32.4, 74.5, 0.0); (567539.9, 4220209.2, 37.8, 74.5, 0.0);
(567589.9, 4220209.2, 34.9, 74.5, 0.0); (567639.9, 4220209.2, 31.2, 74.5, 0.0);
(567539.9, 4220259.2, 37.3, 74.5, 0.0); (567589.9, 4220259.2, 34.5, 74.5, 0.0);
(567639.9, 4220259.2, 30.2, 74.5, 0.0); (567689.9, 4220259.2, 30.0, 74.5, 0.0);
(567539.9, 4220309.2, 35.5, 74.5, 0.0); (567589.9, 4220309.2, 33.8, 74.5, 0.0);
(567639.9, 4220309.2, 31.6, 74.5, 0.0); (567689.9, 4220309.2, 29.2, 74.5, 0.0);
(567539.9, 4220359.2, 36.0, 74.5, 0.0); (567589.9, 4220359.2, 33.7, 74.5, 0.0);
(567639.9, 4220359.2, 31.9, 74.5, 0.0); (567689.9, 4220359.2, 28.0, 74.5, 0.0);
(567739.9, 4220359.2, 30.0, 30.0, 0.0); (567539.9, 4220409.2, 36.4, 74.3, 0.0);
(567589.9, 4220409.2, 34.1, 74.3, 0.0); (567639.9, 4220409.2, 30.8, 74.3, 0.0);
(567689.9, 4220409.2, 27.2, 50.5, 0.0); (567739.9, 4220409.2, 29.4, 324.6, 0.0);
(567539.9, 4220459.2, 40.2, 50.5, 0.0); (567589.9, 4220459.2, 36.1, 50.5, 0.0);
(567639.9, 4220459.2, 31.4, 50.5, 0.0); (567689.9, 4220459.2, 26.7, 324.6, 0.0);
(567739.9, 4220459.2, 29.4, 324.6, 0.0); (567539.9, 4220509.2, 46.6, 50.1, 0.0);
(567589.9, 4220509.2, 39.6, 50.5, 0.0); (567639.9, 4220509.2, 33.0, 50.5, 0.0);
(567689.9, 4220509.2, 26.6, 324.6, 0.0); (567739.9, 4220509.2, 28.7, 324.6, 0.0);
(567539.9, 4220559.2, 40.5, 50.5, 0.0); (567589.9, 4220559.2, 34.1, 50.5, 0.0);
(567639.9, 4220559.2, 30.1, 324.6, 0.0); (567689.9,

```
4220559.2,      26.3,     324.6,       0.0);
     ( 567739.9, 4220559.2,      28.2,     324.6,       0.0);         ( 567789.9,
4220559.2,      29.7,     324.6,       0.0);
     ( 567539.9, 4220609.2,      34.1,      50.5,       0.0);         ( 567589.9,
4220609.2,      29.5,     324.6,       0.0);
     ( 567639.9, 4220609.2,      27.4,     324.6,       0.0);         ( 567689.9,
4220609.2,      26.6,     324.6,       0.0);
     ( 567739.9, 4220609.2,      28.1,     324.6,       0.0);         ( 567789.9,
4220609.2,      30.3,     324.6,       0.0);
     ( 567340.1, 4219808.6,      45.8,      73.2,       0.0);         ( 567340.1,
4219858.6,      49.5,      74.5,       0.0);
     ( 567390.1, 4219858.6,      53.1,      68.3,       0.0);         ( 567340.1,
4219908.6,      54.5,      74.5,       0.0);
     ( 567390.1, 4219908.6,      59.0,      59.0,       0.0);         ( 567440.1,
4219908.6,      55.8,      68.3,       0.0);
     ( 567490.1, 4219908.6,      43.7,      74.5,       0.0);         ( 567340.1,
4219958.6,      59.9,      73.2,       0.0);
     ( 567390.1, 4219958.6,      63.4,      63.4,       0.0);         ( 567440.1,
4219958.6,      57.5,      73.2,       0.0);
     ( 567490.1, 4219958.6,      43.3,      74.5,       0.0);         ( 567340.1,
4220008.6,      66.7,      73.2,       0.0);
     ( 567390.1, 4220008.6,      66.5,      68.3,       0.0);         ( 567440.1,
4220008.6,      59.1,      74.0,       0.0);
     ( 567490.1, 4220008.6,      49.2,      74.5,       0.0);         ( 567540.1,
4220008.6,      36.5,      74.5,       0.0);
     ( 567340.1, 4220058.6,      71.0,      73.2,       0.0);         ( 567390.1,
4220058.6,      63.1,      74.5,       0.0);
     ( 567440.1, 4220058.6,      53.3,      74.5,       0.0);         ( 567490.1,
4220058.6,      42.7,      74.5,       0.0);
     ( 567540.1, 4220058.6,      36.1,      74.5,       0.0);         ( 567340.1,
4220108.6,      71.3,      74.0,       0.0);
     ( 567390.1, 4220108.6,      60.5,      74.5,       0.0);         ( 567440.1,
4220108.6,      47.1,      74.5,       0.0);
     ( 567490.1, 4220108.6,      37.3,      74.5,       0.0);         ( 567540.1,
4220108.6,      35.5,      74.5,       0.0);
     ( 567340.1, 4220158.6,      65.0,      74.5,       0.0);         ( 567390.1,
4220158.6,      54.8,      74.5,       0.0);
     ( 567440.1, 4220158.6,      44.2,      74.5,       0.0);         ( 567490.1,
4220158.6,      37.2,      74.5,       0.0);
     ( 567540.1, 4220158.6,      36.0,      74.5,       0.0);         ( 567340.1,
4220208.6,      56.2,      74.5,       0.0);
     ( 567390.1, 4220208.6,      45.7,      74.5,       0.0);         ( 567440.1,
4220208.6,      41.1,      74.5,       0.0);
     ( 567490.1, 4220208.6,      38.9,      74.5,       0.0);         ( 567540.1,
4220208.6,      37.7,      74.5,       0.0);
     ( 567340.1, 4220258.6,      46.7,      74.5,       0.0);         ( 567390.1,
4220258.6,      40.5,      74.5,       0.0);
     ( 567440.1, 4220258.6,      37.4,      74.5,       0.0);         ( 567490.1,
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4220258.6, 37.4, 74.5, 0.0);
(567540.1, 4220258.6, 37.3, 74.5, 0.0); (567340.1, 4220308.6, 41.8, 74.5, 0.0);
(567390.1, 4220308.6, 38.9, 74.5, 0.0); (567440.1, 4220308.6, 37.4, 74.5, 0.0);
↟ *** AERMOD - VERSION 19191 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
*** AERMET - VERSION 14134 *** ***
*** 09:07:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(567490.1, 4220308.6, 36.3, 74.5, 0.0); (567540.1, 4220308.6, 35.5, 74.5, 0.0);
(567340.1, 4220358.6, 41.4, 74.5, 0.0); (567390.1, 4220358.6, 38.5, 74.5, 0.0);
(567440.1, 4220358.6, 37.6, 74.5, 0.0); (567490.1, 4220358.6, 37.1, 74.5, 0.0);
(567540.1, 4220358.6, 36.0, 74.5, 0.0); (567340.1, 4220408.6, 43.4, 74.5, 0.0);
(567390.1, 4220408.6, 43.0, 74.3, 0.0); (567440.1, 4220408.6, 42.4, 74.3, 0.0);
(567490.1, 4220408.6, 38.7, 74.3, 0.0); (567540.1, 4220408.6, 36.4, 74.3, 0.0);
(567340.1, 4220458.6, 47.4, 47.4, 0.0); (567390.1, 4220458.6, 44.8, 44.8, 0.0);
(567440.1, 4220458.6, 41.9, 41.9, 0.0); (567490.1, 4220458.6, 40.9, 50.5, 0.0);
(567540.1, 4220458.6, 40.1, 50.5, 0.0); (567340.1, 4220508.6, 50.5, 50.5, 0.0);
(567390.1, 4220508.6, 44.2, 52.0, 0.0); (567440.1, 4220508.6, 42.3, 50.5, 0.0);
(567490.1, 4220508.6, 46.6, 50.5, 0.0); (567540.1, 4220508.6, 46.6, 50.1, 0.0);
(567340.1, 4220558.6, 50.4, 50.4, 0.0); (567390.1, 4220558.6, 42.8, 52.0, 0.0);
(567440.1, 4220558.6, 43.9, 50.5, 0.0); (567490.1, 4220558.6, 46.5, 50.5, 0.0);
(567540.1, 4220558.6, 40.6, 50.5, 0.0); (567340.1, 4220608.6, 44.4, 50.9, 0.0);
(567390.1, 4220608.6, 39.2, 52.0, 0.0); (567440.1, 4220608.6, 39.6, 50.5, 0.0);

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     ( 567490.1, 4220608.6,      39.9,      50.5,       0.0);         ( 567540.1,
4220608.6,      34.1,      50.5,       0.0);
     ( 567324.6, 4219559.2,      36.9,      36.9,       0.0);         ( 567374.6,
4219559.2,      35.5,      35.5,       0.0);
     ( 567424.6, 4219559.2,      36.3,      79.2,       0.0);         ( 567324.6,
4219609.2,      37.5,      37.5,       0.0);
     ( 567374.6, 4219609.2,      36.5,      36.5,       0.0);         ( 567424.6,
4219609.2,      36.3,      75.6,       0.0);
     ( 567324.6, 4219659.2,      38.6,      38.6,       0.0);         ( 567374.6,
4219659.2,      37.2,      37.2,       0.0);
     ( 567424.6, 4219659.2,      37.2,      64.1,       0.0);         ( 567324.6,
4219709.2,      40.0,      40.0,       0.0);
     ( 567374.6, 4219709.2,      38.6,      62.8,       0.0);         ( 567424.6,
4219709.2,      38.2,      62.8,       0.0);
     ( 567324.6, 4219759.2,      42.2,      68.3,       0.0);         ( 567374.6,
4219759.2,      42.3,      68.3,       0.0);
     ( 567324.6, 4219809.2,      45.3,      73.2,       0.0);         ( 567374.6,
4219809.2,      46.6,      73.2,       0.0);
     ( 567524.6, 4219559.0,      40.1,      99.5,       0.0);         ( 567574.6,
4219559.0,      41.8,      99.5,       0.0);
     ( 567624.6, 4219559.0,      46.0,      99.5,       0.0);         ( 567674.6,
4219559.0,      53.5,      81.4,       0.0);
     ( 567724.6, 4219559.0,      67.3,      67.3,       0.0);         ( 567774.6,
4219559.0,      61.4,      81.4,       0.0);
     ( 567824.6, 4219559.0,      53.1,      99.5,       0.0);         ( 567874.6,
4219559.0,      60.6,      96.2,       0.0);
     ( 567924.6, 4219559.0,      66.8,      94.6,       0.0);         ( 567524.6,
4219609.0,      43.4,      79.2,       0.0);
     ( 567574.6, 4219609.0,      48.3,      79.2,       0.0);         ( 567624.6,
4219609.0,      52.5,      76.6,       0.0);
     ( 567674.6, 4219609.0,      61.3,      65.1,       0.0);         ( 567724.6,
4219609.0,      61.9,      68.6,       0.0);
     ( 567774.6, 4219609.0,      49.8,      99.5,       0.0);         ( 567824.6,
4219609.0,      43.3,      99.5,       0.0);
     ( 567874.6, 4219609.0,      48.3,      99.5,       0.0);         ( 567924.6,
4219609.0,      53.6,      99.5,       0.0);
     ( 567524.6, 4219659.0,      43.1,      75.6,       0.0);         ( 567574.6,
4219659.0,      48.4,      74.8,       0.0);
     ( 567624.6, 4219659.0,      53.6,      65.1,       0.0);         ( 567674.6,
4219659.0,      61.4,      64.1,       0.0);
     ( 567724.6, 4219659.0,      54.2,      76.6,       0.0);         ( 567774.6,
4219659.0,      44.6,      99.5,       0.0);
     ( 567824.6, 4219659.0,      37.8,      99.5,       0.0);         ( 567874.6,
4219659.0,      38.5,      99.5,       0.0);
     ( 567924.6, 4219659.0,      40.1,      99.5,       0.0);         ( 567624.6,
4219709.0,      44.6,      79.2,       0.0);
     ( 567674.6, 4219709.0,      48.7,      74.8,       0.0);         ( 567724.6,
4219709.0,      47.6,      81.4,       0.0);
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(567774.6, 4219709.0, 40.7, 99.5, 0.0); (567824.6, 4219709.0, 36.2, 99.5, 0.0);
(567874.6, 4219709.0, 35.4, 99.5, 0.0); (567924.6, 4219709.0, 35.1, 99.5, 0.0);
(567674.6, 4219759.0, 36.5, 94.6, 0.0); (567724.6, 4219759.0, 36.9, 96.2, 0.0);
(567774.6, 4219759.0, 35.8, 99.5, 0.0); (567824.6, 4219759.0, 34.3, 99.5, 0.0);
(567874.6, 4219759.0, 33.5, 99.5, 0.0); (567924.6, 4219759.0, 32.7, 99.5, 0.0);
(567924.6, 4219558.8, 66.8, 94.6, 0.0); (567974.6, 4219558.8, 63.6, 94.6, 0.0);
*** AERMOD - VERSION 19191 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
*** AERMET - VERSION 14134 *** ***
*** 09:07:01

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(568024.6, 4219558.8, 53.9, 99.5, 0.0); (568074.6, 4219558.8, 46.0, 99.5, 0.0);
(567924.6, 4219608.8, 53.6, 99.5, 0.0); (567974.6, 4219608.8, 53.4, 99.5, 0.0);
(568024.6, 4219608.8, 47.8, 99.5, 0.0); (568074.6, 4219608.8, 40.8, 99.5, 0.0);
(567924.6, 4219658.8, 40.1, 99.5, 0.0); (567974.6, 4219658.8, 40.4, 99.5, 0.0);
(568024.6, 4219658.8, 37.7, 99.5, 0.0); (568074.6, 4219658.8, 32.5, 99.5, 0.0);
(567924.6, 4219708.8, 35.2, 99.5, 0.0); (567974.6, 4219708.8, 33.9, 99.5, 0.0);
(568024.6, 4219708.8, 31.1, 99.5, 0.0); (568074.6, 4219708.8, 31.8, 99.5, 0.0);
(568124.6, 4219708.8, 37.6, 99.5, 0.0); (567924.6, 4219758.8, 32.7, 99.5, 0.0);
(567974.6, 4219758.8, 31.4, 99.5, 0.0); (568024.6, 4219758.8, 30.3, 99.5, 0.0);
(568074.6, 4219758.8, 35.2, 99.5, 0.0); (568124.6, 4219758.8, 42.0, 94.6, 0.0);
(567924.6, 4219808.8, 31.1, 99.5, 0.0); (567974.6, 4219808.8, 30.3, 99.5, 0.0);
(568024.6, 4219808.8, 32.2, 99.5, 0.0); (568074.6,

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4219808.8,      37.6,      94.6,       0.0);
     ( 568124.6, 4219808.8,      43.4,      94.6,       0.0);         ( 567924.6,
4219858.8,      29.9,      99.5,       0.0);
     ( 567974.6, 4219858.8,      29.9,      99.5,       0.0);         ( 568024.6,
4219858.8,      34.5,      94.6,       0.0);
     ( 568074.6, 4219858.8,      39.6,      94.6,       0.0);         ( 568124.6,
4219858.8,      43.2,      94.6,       0.0);
     ( 567924.6, 4219908.8,      30.3,      94.6,       0.0);         ( 567974.6,
4219908.8,      31.2,      94.6,       0.0);
     ( 568024.6, 4219908.8,      35.1,      94.6,       0.0);         ( 568074.6,
4219908.8,      39.4,      94.6,       0.0);
     ( 568124.6, 4219908.8,      43.3,      43.3,       0.0);         ( 567924.6,
4219958.8,      31.9,      94.6,       0.0);
     ( 567974.6, 4219958.8,      35.7,      35.7,       0.0);         ( 568024.6,
4219958.8,      38.4,      38.4,       0.0);
     ( 568074.6, 4219958.8,      40.5,      40.5,       0.0);         ( 568124.6,
4219958.8,      43.5,      43.5,       0.0);
     ( 567924.6, 4220008.8,      33.7,      33.7,       0.0);         ( 567974.6,
4220008.8,      37.0,      37.0,       0.0);
     ( 568024.6, 4220008.8,      40.0,      40.0,       0.0);         ( 568074.6,
4220008.8,      42.5,      42.5,       0.0);
     ( 568124.6, 4220008.8,      43.7,      43.7,       0.0);         ( 567924.6,
4220058.8,      35.7,      35.7,       0.0);
     ( 567974.6, 4220058.8,      38.2,      38.2,       0.0);         ( 568024.6,
4220058.8,      41.0,      41.0,       0.0);
     ( 568074.6, 4220058.8,      43.1,      43.1,       0.0);         ( 568124.6,
4220058.8,      42.5,      42.5,       0.0);
     ( 567924.6, 4220108.8,      36.5,      36.5,       0.0);         ( 567974.6,
4220108.8,      38.5,      38.5,       0.0);
     ( 568024.6, 4220108.8,      39.4,      39.4,       0.0);         ( 568074.6,
4220108.8,      39.4,      39.4,       0.0);
     ( 568124.6, 4220108.8,      38.4,      38.4,       0.0);         ( 567924.6,
4220158.8,      36.3,      36.3,       0.0);
     ( 567974.6, 4220158.8,      37.1,      37.1,       0.0);         ( 568024.6,
4220158.8,      36.7,      36.7,       0.0);
     ( 568074.6, 4220158.8,      36.2,      36.2,       0.0);         ( 568124.6,
4220158.8,      36.4,     324.6,       0.0);
     ( 568125.0, 4219709.0,      37.7,      99.5,       0.0);         ( 568175.0,
4219709.0,      42.6,      99.5,       0.0);
     ( 568225.0, 4219709.0,      47.7,      94.6,       0.0);         ( 568275.0,
4219709.0,      51.4,      94.6,       0.0);
     ( 568125.0, 4219759.0,      42.1,      94.6,       0.0);         ( 568175.0,
4219759.0,      47.3,      94.6,       0.0);
     ( 568225.0, 4219759.0,      52.4,      94.6,       0.0);         ( 568275.0,
4219759.0,      55.7,      55.7,       0.0);
     ( 568125.0, 4219809.0,      43.5,      94.6,       0.0);         ( 568175.0,
4219809.0,      48.1,      94.6,       0.0);
     ( 568225.0, 4219809.0,      52.4,      55.9,       0.0);         ( 568275.0,
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4219809.0,   55.8,   55.8,   0.0);
     (568125.0, 4219859.0,   43.2,   94.6,   0.0);   (568175.0,
4219859.0,   46.7,   46.7,   0.0);
     (568225.0, 4219859.0,   49.7,   49.7,   0.0);   (568275.0,
4219859.0,   54.1,   54.1,   0.0);
     (568325.0, 4219859.0,   56.1,   56.1,   0.0);   (568375.0,
4219859.0,   54.2,   54.2,   0.0);
     (568425.0, 4219859.0,   54.7,   54.7,   0.0);   (568475.0,
4219859.0,   55.4,   55.4,   0.0);
     (568525.0, 4219859.0,   46.9,   88.1,   0.0);   (568125.0,
4219909.0,   43.4,   43.4,   0.0);
     (568175.0, 4219909.0,   46.5,   46.5,   0.0);   (568225.0,
4219909.0,   49.9,   49.9,   0.0);
     (568275.0, 4219909.0,   53.3,   53.3,   0.0);   (568325.0,
4219909.0,   55.5,   55.5,   0.0);
     (568375.0, 4219909.0,   52.6,   52.6,   0.0);   (568425.0,
4219909.0,   50.4,   55.9,   0.0);
     (568475.0, 4219909.0,   46.1,   56.0,   0.0);   (568525.0,
4219909.0,   41.3,   88.1,   0.0);
 *** AERMOD - VERSION 19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION 14134 ***   ***
                        ***   09:07:01

                                   PAGE   8
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

     (568125.0, 4219959.0,   43.5,   43.5,   0.0);   (568175.0,
4219959.0,   44.4,   44.4,   0.0);
     (568225.0, 4219959.0,   46.4,   53.2,   0.0);   (568275.0,
4219959.0,   49.1,   54.9,   0.0);
     (568325.0, 4219959.0,   51.1,   54.9,   0.0);   (568375.0,
4219959.0,   49.2,   54.9,   0.0);
     (568425.0, 4219959.0,   42.9,   56.1,   0.0);   (568475.0,
4219959.0,   37.6,   324.6,   0.0);
     (568525.0, 4219959.0,   42.3,   88.1,   0.0);   (568125.0,
4220009.0,   43.7,   43.7,   0.0);
     (568175.0, 4220009.0,   42.8,   42.8,   0.0);   (568225.0,
4220009.0,   42.5,   54.9,   0.0);
     (568275.0, 4220009.0,   43.4,   56.1,   0.0);   (568325.0,
4220009.0,   44.7,   54.9,   0.0);
     (568375.0, 4220009.0,   43.7,   56.1,   0.0);   (568425.0,
4220009.0,   37.1,   324.6,   0.0);

(568475.0, 4220009.0, 41.9, 324.6, 0.0); (568525.0, 4220009.0, 49.8, 56.0, 0.0);
(568125.0, 4220059.0, 42.5, 42.5, 0.0); (568175.0, 4220059.0, 40.2, 40.2, 0.0);
(568225.0, 4220059.0, 39.4, 39.4, 0.0); (568275.0, 4220059.0, 40.3, 54.9, 0.0);
(568325.0, 4220059.0, 39.4, 324.6, 0.0); (568375.0, 4220059.0, 37.3, 324.6, 0.0);
(568425.0, 4220059.0, 41.5, 324.6, 0.0); (568475.0, 4220059.0, 48.3, 48.3, 0.0);
(568525.0, 4220059.0, 51.6, 51.6, 0.0); (568125.0, 4220109.0, 38.4, 38.4, 0.0);
(568175.0, 4220109.0, 37.4, 37.4, 0.0); (568225.0, 4220109.0, 38.4, 324.6, 0.0);
(568275.0, 4220109.0, 38.4, 324.6, 0.0); (568325.0, 4220109.0, 37.1, 324.6, 0.0);
(568375.0, 4220109.0, 40.7, 324.6, 0.0); (568425.0, 4220109.0, 46.9, 324.6, 0.0);
(568475.0, 4220109.0, 50.3, 324.6, 0.0); (568525.0, 4220109.0, 49.3, 324.6, 0.0);
(568125.0, 4220159.0, 36.4, 324.6, 0.0); (568175.0, 4220159.0, 37.5, 324.6, 0.0);
(568225.0, 4220159.0, 38.0, 324.6, 0.0); (568275.0, 4220159.0, 36.9, 324.6, 0.0);
(568325.0, 4220159.0, 37.4, 324.6, 0.0); (568375.0, 4220159.0, 41.7, 324.6, 0.0);
(568425.0, 4220159.0, 43.3, 324.6, 0.0); (568475.0, 4220159.0, 44.2, 324.6, 0.0);
(568525.0, 4220159.0, 45.7, 324.6, 0.0); (568125.0, 4220209.0, 35.8, 324.6, 0.0);
(568175.0, 4220209.0, 38.0, 324.6, 0.0); (568225.0, 4220209.0, 36.3, 324.6, 0.0);
(568275.0, 4220209.0, 34.5, 324.6, 0.0); (568325.0, 4220209.0, 37.6, 324.6, 0.0);
(568375.0, 4220209.0, 38.9, 324.6, 0.0); (568425.0, 4220209.0, 39.1, 324.6, 0.0);
(568475.0, 4220209.0, 43.1, 324.6, 0.0); (568525.0, 4220209.0, 44.0, 324.6, 0.0);
(568125.0, 4220259.0, 32.8, 324.6, 0.0); (568175.0, 4220259.0, 34.4, 324.6, 0.0);
(568225.0, 4220259.0, 31.4, 324.6, 0.0); (568275.0, 4220259.0, 33.2, 324.6, 0.0);
(568325.0, 4220259.0, 36.2, 324.6, 0.0); (568375.0, 4220259.0, 37.3, 324.6, 0.0);
(568425.0, 4220259.0, 36.3, 324.6, 0.0); (568475.0, 4220259.0, 37.8, 324.6, 0.0);
(568525.0, 4220259.0, 37.8, 324.6, 0.0); (568125.0, 4220309.0, 30.3, 324.6, 0.0);

```
     ( 568175.0, 4220309.0,      30.8,     324.6,       0.0);         ( 568225.0,
4220309.0,      31.3,     324.6,       0.0);
     ( 568275.0, 4220309.0,      33.8,     324.6,       0.0);         ( 568325.0,
4220309.0,      37.1,     324.6,       0.0);
     ( 568375.0, 4220309.0,      37.5,     324.6,       0.0);         ( 568425.0,
4220309.0,      35.7,     324.6,       0.0);
     ( 568475.0, 4220309.0,      34.0,     324.6,       0.0);         ( 568525.0,
4220309.0,      33.4,     324.6,       0.0);
     ( 568125.0, 4220359.0,      29.6,     324.6,       0.0);         ( 568175.0,
4220359.0,      30.3,     324.6,       0.0);
     ( 568225.0, 4220359.0,      31.1,     324.6,       0.0);         ( 568275.0,
4220359.0,      32.6,     324.6,       0.0);
     ( 568325.0, 4220359.0,      35.5,     324.6,       0.0);         ( 568375.0,
4220359.0,      34.5,     324.6,       0.0);
     ( 568425.0, 4220359.0,      32.3,     324.6,       0.0);         ( 568475.0,
4220359.0,      32.5,     324.6,       0.0);
     ( 568525.0, 4220359.0,      34.0,     324.6,       0.0);         ( 568125.0,
4220409.0,      29.0,     324.6,       0.0);
     ( 568175.0, 4220409.0,      29.9,     324.6,       0.0);         ( 568225.0,
4220409.0,      30.4,     324.6,       0.0);
     ( 568275.0, 4220409.0,      30.7,     324.6,       0.0);         ( 568325.0,
4220409.0,      31.0,     324.6,       0.0);
     ( 568375.0, 4220409.0,      30.9,     324.6,       0.0);         ( 568425.0,
4220409.0,      31.8,     324.6,       0.0);
     ( 568475.0, 4220409.0,      33.2,     324.6,       0.0);         ( 568525.0,
4220409.0,      34.5,     324.6,       0.0);
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:07:01

                                   PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                        (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                    (METERS)

     ( 568125.0, 4220459.0,      28.2,     324.6,       0.0);         ( 568175.0,
4220459.0,      28.8,     324.6,       0.0);
     ( 568225.0, 4220459.0,      29.4,     324.6,       0.0);         ( 568275.0,
4220459.0,      29.8,     324.6,       0.0);
     ( 568325.0, 4220459.0,      30.5,     324.6,       0.0);         ( 568375.0,
4220459.0,      31.4,     324.6,       0.0);
     ( 568425.0, 4220459.0,      32.4,     324.6,       0.0);         ( 568475.0,
4220459.0,      33.6,     324.6,       0.0);
     ( 568525.0, 4220459.0,      35.0,     324.6,       0.0);         ( 568125.0,
```

4220509.0,   27.7,   324.6,   0.0);
     (568175.0, 4220509.0,   28.5,   324.6,   0.0);   (568225.0,
4220509.0,   29.7,   324.6,   0.0);
     (568275.0, 4220509.0,   30.2,   324.6,   0.0);   (568325.0,
4220509.0,   30.9,   324.6,   0.0);
     (568375.0, 4220509.0,   31.9,   324.6,   0.0);   (568425.0,
4220509.0,   32.9,   324.6,   0.0);
     (568475.0, 4220509.0,   34.0,   324.6,   0.0);   (568525.0,
4220509.0,   35.2,   324.6,   0.0);
     (568125.0, 4220559.0,   28.3,   324.6,   0.0);   (568175.0,
4220559.0,   28.9,   324.6,   0.0);
     (568225.0, 4220559.0,   29.8,   324.6,   0.0);   (568275.0,
4220559.0,   30.3,   324.6,   0.0);
     (568325.0, 4220559.0,   31.3,   324.6,   0.0);   (568375.0,
4220559.0,   32.2,   324.6,   0.0);
     (568425.0, 4220559.0,   33.4,   324.6,   0.0);   (568475.0,
4220559.0,   35.0,   324.6,   0.0);
     (568525.0, 4220559.0,   35.3,   324.6,   0.0);   (568125.0,
4220609.0,   28.1,   324.6,   0.0);
     (568175.0, 4220609.0,   28.5,   324.6,   0.0);   (568225.0,
4220609.0,   29.4,   324.6,   0.0);
     (568275.0, 4220609.0,   29.8,   324.6,   0.0);   (568325.0,
4220609.0,   30.9,   324.6,   0.0);
     (568375.0, 4220609.0,   31.3,   324.6,   0.0);

 *** AERMOD - VERSION 19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION 14134 ***   ***
                       ***   09:07:01

                                 PAGE 10
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                              (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: NapaCountyAirport_MetData\724955.SFC
Met Version: 14134
Profile file: NapaCountyAirport_MetData\724955.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 93227 Upper air station no.: 23230
Name: NAPA_COUNTY_AIRPORT Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-2.8	0.059	-9.000	-9.000	-999.	34.	6.8	0.03	0.63						

```
1.00    1.76  111.   10.0  279.2    2.0
 09 01 01   1 02  -11.4  0.199 -9.000 -9.000 -999.  213.     62.6  0.03   0.63
1.00    3.36   98.   10.0  279.2    2.0
 09 01 01   1 03  -19.9  0.345 -9.000 -9.000 -999.  485.    187.0  0.03   0.63
1.00    5.36   94.   10.0  278.1    2.0
 09 01 01   1 04  -15.8  0.273 -9.000 -9.000 -999.  345.    117.7  0.03   0.63
1.00    4.36   93.   10.0  278.1    2.0
 09 01 01   1 05  -13.7  0.237 -9.000 -9.000 -999.  277.     88.3  0.03   0.63
1.00    3.86   93.   10.0  278.1    2.0
 09 01 01   1 06   -2.8  0.059 -9.000 -9.000 -999.   87.      6.8  0.03   0.63
1.00    1.76   92.   10.0  278.8    2.0
 09 01 01   1 07   -9.1  0.158 -9.000 -9.000 -999.  151.     39.6  0.03   0.63
1.00    2.86  105.   10.0  278.8    2.0
 09 01 01   1 08  -13.6  0.237 -9.000 -9.000 -999.  276.     88.5  0.03   0.63
1.00    3.86   93.   10.0  278.8    2.0
 09 01 01   1 09   -9.4  0.318 -9.000 -9.000 -999.  430.    311.3  0.03   0.63
0.41    4.86   97.   10.0  278.8    2.0
 09 01 01   1 10    4.8  0.296  0.220  0.016   81.  388.   -497.3  0.03   0.63
0.28    4.36  101.   10.0  279.2    2.0
 09 01 01   1 11   11.8  0.301  0.366  0.016  151.  396.   -210.6  0.03   0.63
0.23    4.36   94.   10.0  279.2    2.0
 09 01 01   1 12   15.7  0.335  0.450  0.016  210.  465.   -217.6  0.03   0.63
0.22    4.86   86.   10.0  279.2    2.0
 09 01 01   1 13   16.4  0.291  0.488  0.016  257.  377.   -136.4  0.02   0.63
0.22    4.36  123.   10.0  279.2    2.0
 09 01 01   1 14   13.8  0.334  0.480  0.016  291.  463.   -245.4  0.03   0.63
0.22    4.86  109.   10.0  279.2    2.0
 09 01 01   1 15    8.1  0.202  0.411  0.015  310.  229.    -92.5  0.03   0.63
0.26    2.86  102.   10.0  279.9    2.0
 09 01 01   1 16   -0.4  0.191 -9.000 -9.000 -999.  200.   1603.3  0.03   0.63
0.34    2.86  104.   10.0  279.9    2.0
 09 01 01   1 17   -6.1  0.117 -9.000 -9.000 -999.   97.     23.6  0.03   0.63
0.58    2.36  111.   10.0  279.2    2.0
 09 01 01   1 18  -11.4  0.199 -9.000 -9.000 -999.  213.     62.4  0.03   0.63
1.00    3.36   97.   10.0  278.8    2.0
 09 01 01   1 19   -9.1  0.158 -9.000 -9.000 -999.  152.     39.6  0.03   0.63
1.00    2.86   94.   10.0  278.8    2.0
 09 01 01   1 20   -9.1  0.158 -9.000 -9.000 -999.  151.     39.6  0.03   0.63
1.00    2.86   87.   10.0  278.8    2.0
 09 01 01   1 21   -2.7  0.059 -9.000 -9.000 -999.   41.      6.8  0.03   0.63
1.00    1.76   90.   10.0  279.2    2.0
 09 01 01   1 22   -6.3  0.110 -9.000 -9.000 -999.   88.     19.2  0.03   0.63
1.00    2.36   72.   10.0  279.2    2.0
 09 01 01   1 23  -11.4  0.199 -9.000 -9.000 -999.  213.     62.6  0.03   0.63
1.00    3.36  100.   10.0  279.2    2.0
 09 01 01   1 24  -11.4  0.199 -9.000 -9.000 -999.  213.     62.6  0.03   0.63
1.00    3.36   90.   10.0  279.2    2.0
```

```
 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1  111.    1.76   279.3   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        09:07:01

                                  PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF TOG      IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
         567539.85    4220159.17        0.01160                      567589.85
4220159.17        0.01443
         567639.85    4220159.17        0.01834                      567539.85
4220209.17        0.01648
         567589.85    4220209.17        0.02308                      567639.85
4220209.17        0.03215
         567539.85    4220259.17        0.01917                      567589.85
4220259.17        0.02653
         567639.85    4220259.17        0.03638                      567689.85
4220259.17        0.05559
         567539.85    4220309.17        0.01735                      567589.85
4220309.17        0.02265
         567639.85    4220309.17        0.03033                      567689.85
4220309.17        0.04057
         567539.85    4220359.17        0.01451                      567589.85
4220359.17        0.01861
         567639.85    4220359.17        0.02422                      567689.85
4220359.17        0.02889
         567739.85    4220359.17        0.03894                      567539.85
```

```
4220409.17        0.01256
         567589.85    4220409.17        0.01568                    567639.85
4220409.17        0.01887
         567689.85    4220409.17        0.02057                    567739.85
4220409.17        0.02628
         567539.85    4220459.17        0.01017                    567589.85
4220459.17        0.01286
         567639.85    4220459.17        0.01475                    567689.85
4220459.17        0.01525
         567739.85    4220459.17        0.01972                    567539.85
4220509.17        0.00696
         567589.85    4220509.17        0.00965                    567639.85
4220509.17        0.01164
         567689.85    4220509.17        0.01207                    567739.85
4220509.17        0.01540
         567539.85    4220559.17        0.00726                    567589.85
4220559.17        0.00859
         567639.85    4220559.17        0.00918                    567689.85
4220559.17        0.00994
         567739.85    4220559.17        0.01249                    567789.85
4220559.17        0.01605
         567539.85    4220609.17        0.00667                    567589.85
4220609.17        0.00696
         567639.85    4220609.17        0.00744                    567689.85
4220609.17        0.00848
         567739.85    4220609.17        0.01041                    567789.85
4220609.17        0.01304
         567340.05    4219808.62        0.00136                    567340.05
4219858.62        0.00116
         567390.05    4219858.62        0.00122                    567340.05
4219908.62        0.00102
         567390.05    4219908.62        0.00099                    567440.05
4219908.62        0.00129
         567490.05    4219908.62        0.00262                    567340.05
4219958.62        0.00111
         567390.05    4219958.62        0.00107                    567440.05
4219958.62        0.00125
         567490.05    4219958.62        0.00255                    567340.05
4220008.62        0.00135
         567390.05    4220008.62        0.00142                    567440.05
4220008.62        0.00154
         567490.05    4220008.62        0.00216                    567540.05
4220008.62        0.00436
         567340.05    4220058.62        0.00160                    567390.05
4220058.62        0.00184
         567440.05    4220058.62        0.00238                    567490.05
4220058.62        0.00382
         567540.05    4220058.62        0.00529                    567340.05
```

4220108.62 0.00207
567390.05 4220108.62 0.00242 567440.05
4220108.62 0.00390
567490.05 4220108.62 0.00644 567540.05
4220108.62 0.00749
567340.05 4220158.62 0.00306 567390.05
4220158.62 0.00390
567440.05 4220158.62 0.00637 567490.05
4220158.62 0.00950
567540.05 4220158.62 0.01156 567340.05
4220208.62 0.00449
567390.05 4220208.62 0.00713 567440.05
4220208.62 0.00980

*** AERMOD - VERSION 19191 *** ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
*** AERMET - VERSION 14134 *** ***
*** 09:07:01

PAGE 13
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): GS_TANK ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOG IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
567490.05	4220208.62	0.01268	567540.05	4220208.62	0.01644
567340.05	4220258.62	0.00664	567390.05	4220258.62	0.00934
567440.05	4220258.62	0.01192	567490.05	4220258.62	0.01488
567540.05	4220258.62	0.01919	567340.05	4220308.62	0.00740
567390.05	4220308.62	0.00915	567440.05	4220308.62	0.01124
567490.05	4220308.62	0.01383	567540.05	4220308.62	0.01740

```
         567340.05    4220358.62        0.00663                    567390.05
4220358.62        0.00806
         567440.05    4220358.62        0.00956                    567490.05
4220358.62        0.01177
         567540.05    4220358.62        0.01455                    567340.05
4220408.62        0.00558
         567390.05    4220408.62        0.00641                    567440.05
4220408.62        0.00753
         567490.05    4220408.62        0.00984                    567540.05
4220408.62        0.01259
         567340.05    4220458.62        0.00451                    567390.05
4220458.62        0.00559
         567440.05    4220458.62        0.00706                    567490.05
4220458.62        0.00851
         567540.05    4220458.62        0.01021                    567340.05
4220508.62        0.00382
         567390.05    4220508.62        0.00538                    567440.05
4220508.62        0.00648
         567490.05    4220508.62        0.00636                    567540.05
4220508.62        0.00697
         567340.05    4220558.62        0.00366                    567390.05
4220558.62        0.00521
         567440.05    4220558.62        0.00564                    567490.05
4220558.62        0.00561
         567540.05    4220558.62        0.00726                    567340.05
4220608.62        0.00419
         567390.05    4220608.62        0.00509                    567440.05
4220608.62        0.00551
         567490.05    4220608.62        0.00587                    567540.05
4220608.62        0.00669
         567324.60    4219559.23        0.00168                    567374.60
4219559.23        0.00202
         567424.60    4219559.23        0.00245                    567324.60
4219609.23        0.00163
         567374.60    4219609.23        0.00201                    567424.60
4219609.23        0.00246
         567324.60    4219659.23        0.00161                    567374.60
4219659.23        0.00200
         567424.60    4219659.23        0.00246                    567324.60
4219709.23        0.00156
         567374.60    4219709.23        0.00191                    567424.60
4219709.23        0.00235
         567324.60    4219759.23        0.00146                    567374.60
4219759.23        0.00178
         567324.60    4219809.23        0.00130                    567374.60
4219809.23        0.00153
         567524.55    4219558.98        0.00352                    567574.55
4219558.98        0.00422
```

```
         567624.55    4219558.98        0.00461                       567674.55
4219558.98        0.00422
         567724.55    4219558.98        0.00353                       567774.55
4219558.98        0.00363
         567824.55    4219558.98        0.00421                       567874.55
4219558.98        0.00309
         567924.55    4219558.98        0.00242                       567524.55
4219608.98        0.00339
         567574.55    4219608.98        0.00373                       567624.55
4219608.98        0.00396
         567674.55    4219608.98        0.00369                       567724.55
4219608.98        0.00413
         567774.55    4219608.98        0.00565                       567824.55
4219608.98        0.00634
         567874.55    4219608.98        0.00490                       567924.55
4219608.98        0.00350
         567524.55    4219658.98        0.00343                       567574.55
4219658.98        0.00378
         567624.55    4219658.98        0.00397                       567674.55
4219658.98        0.00397
🡅 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        09:07:01

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF TOG      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
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         567824.55    4219658.98        0.00793                       567874.55
4219658.98        0.00701
         567924.55    4219658.98        0.00586                       567624.55
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4219708.98        0.00564
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4219708.98        0.00932
         567874.55    4219708.98        0.00839                    567924.55
4219708.98        0.00718
         567674.55    4219758.98        0.00895                    567724.55
4219758.98        0.01065
         567774.55    4219758.98        0.01147                    567824.55
4219758.98        0.01111
         567874.55    4219758.98        0.00988                    567924.55
4219758.98        0.00828
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4219558.79        0.00225
         568024.57    4219558.79        0.00246                    568074.57
4219558.79        0.00268
         567924.57    4219608.79        0.00350                    567974.57
4219608.79        0.00310
         568024.57    4219608.79        0.00319                    568074.57
4219608.79        0.00318
         567924.57    4219658.79        0.00586                    567974.57
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         568024.57    4219658.79        0.00428                    568074.57
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         567924.57    4219708.79        0.00718                    567974.57
4219708.79        0.00597
         568024.57    4219708.79        0.00489                    568074.57
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         568124.57    4219708.79        0.00353                    567924.57
4219758.79        0.00828
         567974.57    4219758.79        0.00667                    568024.57
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         568074.57    4219758.79        0.00464                    568124.57
4219758.79        0.00375
         567924.57    4219808.79        0.00953                    567974.57
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         568024.57    4219808.79        0.00614                    568074.57
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         567974.57    4219858.79        0.00850                    568024.57
4219858.79        0.00708
         568074.57    4219858.79        0.00580                    568124.57
4219858.79        0.00503
         567924.57    4219908.79        0.01319                    567974.57
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         568024.57    4219908.79        0.00846                    568074.57
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4219908.79        0.00708
         568124.57    4219908.79        0.00589                        567924.57
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         567974.57    4219958.79        0.01221                        568024.57
4219958.79        0.00978
         568074.57    4219958.79        0.00845                        568124.57
4219958.79        0.00701
         567924.57    4220008.79        0.02065                        567974.57
4220008.79        0.01554
         568024.57    4220008.79        0.01204                        568074.57
4220008.79        0.00985
         568124.57    4220008.79        0.00855                        567924.57
4220058.79        0.02734
         567974.57    4220058.79        0.01973                        568024.57
4220058.79        0.01538
         568074.57    4220058.79        0.01229                        568124.57
4220058.79        0.01097
         567924.57    4220108.79        0.04134                        567974.57
4220108.79        0.02890
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4220108.79        0.01867
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         568074.57    4220158.79        0.03004                        568124.57
4220158.79        0.02353
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        09:07:01

                                  PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF TOG      IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
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568124.99	4219708.95	0.00352	568174.99	4219708.95	0.00313
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568124.99	4219758.95	0.00375	568174.99	4219758.95	0.00317
568224.99	4219758.95	0.00256	568274.99	4219758.95	0.00217
568124.99	4219808.95	0.00425	568174.99	4219808.95	0.00351
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568224.99	4219858.95	0.00352	568274.99	4219858.95	0.00289
568324.99	4219858.95	0.00262	568374.99	4219858.95	0.00264
568424.99	4219858.95	0.00246	568474.99	4219858.95	0.00227
568524.99	4219858.95	0.00270	568124.99	4219908.95	0.00588
568174.99	4219908.95	0.00488	568224.99	4219908.95	0.00407
568274.99	4219908.95	0.00342	568324.99	4219908.95	0.00300
568374.99	4219908.95	0.00308	568424.99	4219908.95	0.00308
568474.99	4219908.95	0.00323	568524.99	4219908.95	0.00327
568124.99	4219958.95	0.00700	568174.99	4219958.95	0.00630
568224.99	4219958.95	0.00540	568274.99	4219958.95	0.00451
568324.99	4219958.95	0.00388	568374.99	4219958.95	0.00383
568424.99	4219958.95	0.00417	568474.99	4219958.95	0.00413
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568174.99	4220008.95	0.00791	568224.99	4220008.95	0.00710
568274.99	4220008.95	0.00623	568324.99	4220008.95	0.00546
568374.99	4220008.95	0.00512	568424.99	4220008.95	0.00533

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         568474.99    4220008.95        0.00448                        568524.99
4220008.95        0.00351
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         568224.99    4220058.95        0.00916                        568274.99
4220058.95        0.00798
         568324.99    4220058.95        0.00728                        568374.99
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         568424.99    4220058.95        0.00574                        568474.99
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         568524.99    4220058.95        0.00385                        568124.99
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         568174.99    4220108.95        0.01446                        568224.99
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         568474.99    4220108.95        0.00507                        568524.99
4220108.95        0.00477
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         568224.99    4220158.95        0.01511                        568274.99
4220158.95        0.01308
         568324.99    4220158.95        0.01114                        568374.99
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         568174.99    4220208.95        0.02304                        568224.99
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         568274.99    4220208.95        0.01546                        568324.99
4220208.95        0.01284
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        09:07:01

                                  PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
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***

** CONC OF TOG IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
568374.99	4220208.95	0.01086	568424.99	4220208.95	0.00939
568474.99	4220208.95	0.00785	568524.99	4220208.95	0.00688
568124.99	4220258.95	0.03440	568174.99	4220258.95	0.02620
568224.99	4220258.95	0.02067	568274.99	4220258.95	0.01693
568324.99	4220258.95	0.01400	568374.99	4220258.95	0.01183
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568524.99	4220258.95	0.00790	568124.99	4220308.95	0.03259
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568274.99	4220308.95	0.01714	568324.99	4220308.95	0.01422
568374.99	4220308.95	0.01233	568424.99	4220308.95	0.01051
568474.99	4220308.95	0.00920	568524.99	4220308.95	0.00811
568124.99	4220358.95	0.02857	568174.99	4220358.95	0.02326
568224.99	4220358.95	0.01931	568274.99	4220358.95	0.01631
568324.99	4220358.95	0.01379	568374.99	4220358.95	0.01191
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568524.99	4220358.95	0.00808	568124.99	4220408.95	0.02424
568174.99	4220408.95	0.02032	568224.99	4220408.95	0.01720
568274.99	4220408.95	0.01475	568324.99	4220408.95	0.01278
568374.99	4220408.95	0.01117	568424.99	4220408.95	0.00987
568474.99	4220408.95	0.00878	568524.99		

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4220408.95        0.00783
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         568424.99    4220458.95        0.00919                        568474.99
4220458.95        0.00824
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4220508.95        0.01752
         568174.99    4220508.95        0.01510                        568224.99
4220508.95        0.01327
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4220508.95        0.01044
         568374.99    4220508.95        0.00936                        568424.99
4220508.95        0.00844
         568474.99    4220508.95        0.00762                        568524.99
4220508.95        0.00692
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4220558.95        0.01332
         568224.99    4220558.95        0.01174                        568274.99
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         568324.99    4220558.95        0.00938                        568374.99
4220558.95        0.00848
         568424.99    4220558.95        0.00769                        568474.99
4220558.95        0.00699
         568524.99    4220558.95        0.00640                        568124.99
4220608.95        0.01356
         568174.99    4220608.95        0.01180                        568224.99
4220608.95        0.01043
         568274.99    4220608.95        0.00931                        568324.99
4220608.95        0.00843
         568374.99    4220608.95        0.00766

 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:07:01

                                   PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     GS_TANK     ,
```

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOG IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
567539.85	4220159.17	0.99536	(11010721)	567589.85	4220159.17	1.24107	(09120324)
567639.85	4220159.17	1.62210	(11122708)	567539.85	4220209.17	1.12694	(11020623)
567589.85	4220209.17	1.28445	(10013119)	567639.85	4220209.17	1.67470	(11011605)
567539.85	4220259.17	1.01740	(10020908)	567589.85	4220259.17	1.29785	(10120422)
567639.85	4220259.17	1.65067	(10120420)	567689.85	4220259.17	2.20306	(12012319)
567539.85	4220309.17	0.98543	(12120323)	567589.85	4220309.17	1.21711	(09010418)
567639.85	4220309.17	1.53032	(13122119)	567689.85	4220309.17	1.98852	(12120404)
567539.85	4220359.17	0.91271	(10013123)	567589.85	4220359.17	1.14977	(12022808)
567639.85	4220359.17	1.44078	(12120505)	567689.85	4220359.17	1.62523	(11020101)
567739.85	4220359.17	2.13540	(10010107)	567539.85	4220409.17	0.86191	(12120505)
567589.85	4220409.17	1.02519	(09010205)	567639.85	4220409.17	1.21069	(10021224)
567689.85	4220409.17	1.32099	(13012406)	567739.85	4220409.17	1.56046	(10012723)
567539.85	4220459.17	0.90112	(12120521)	567589.85	4220459.17	0.90883	(10021224)
567639.85	4220459.17	1.04700	(11122818)	567689.85	4220459.17	1.09592	(10020219)
567739.85	4220459.17	1.27296	(11011722)	567539.85	4220509.17	0.74153	(11012319)
567589.85	4220509.17	0.90418	(13020307)	567639.85	4220509.17	0.89958	(11020106)
567689.85	4220509.17	0.87008	(10012723)	567739.85	4220509.17	1.02624	(10011708)
567539.85	4220559.17	0.73997	(09022720)	567589.85	4220559.17	0.70984	(09123123)
567639.85	4220559.17	0.74947	(10122624)	567689.85	4220559.17	0.77502	(10012723)

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       567739.85   4220559.17        0.85094  (11022501)                567789.85
 4220559.17        0.88716  (10011308)
       567539.85   4220609.17        0.56816  (13012406)                567589.85
 4220609.17        0.61758  (10020219)
       567639.85   4220609.17        0.60053  (10012723)                567689.85
 4220609.17        0.68021  (12012524)
       567739.85   4220609.17        0.70760  (10022423)                567789.85
 4220609.17        0.74582  (10011308)
       567340.05   4219808.62        0.43796  (13122720)                567340.05
 4219858.62        0.43398  (10011002)
       567390.05   4219858.62        0.42605  (13122720)                567340.05
 4219908.62        0.39840  (09122803)
       567390.05   4219908.62        0.39355  (10121002)                567440.05
 4219908.62        0.44870  (13122121)
       567490.05   4219908.62        0.64595  (13012302)                567340.05
 4219958.62        0.38647  (12020522)
       567390.05   4219958.62        0.40241  (10121306)                567440.05
 4219958.62        0.45776  (10020108)
       567490.05   4219958.62        0.70328  (10020824)                567340.05
 4220008.62        0.38917  (10011121)
       567390.05   4220008.62        0.42413  (10120124)                567440.05
 4220008.62        0.48225  (10021204)
       567490.05   4220008.62        0.64652  (09122803)                567540.05
 4220008.62        0.75454  (10121002)
       567340.05   4220058.62        0.40206  (11122708)                567390.05
 4220058.62        0.44442  (10012808)
       567440.05   4220058.62        0.55788  (10010206)                567490.05
 4220058.62        0.82816  (10120124)
       567540.05   4220058.62        0.86830  (10021204)                567340.05
 4220108.62        0.41053  (09020407)
       567390.05   4220108.62        0.46400  (12020819)                567440.05
 4220108.62        0.69221  (09011605)
       567490.05   4220108.62        0.78147  (11122708)                567540.05
 4220108.62        0.95443  (09020508)
       567340.05   4220158.62        0.41729  (09011520)                567390.05
 4220158.62        0.51215  (09011520)
       567440.05   4220158.62        0.75734  (12011501)                567490.05
 4220158.62        0.81114  (11010721)
       567540.05   4220158.62        0.99474  (11010721)                567340.05
 4220208.62        0.45494  (11120406)
       567390.05   4220208.62        0.66242  (11120406)                567440.05
 4220208.62        0.80755  (11020623)
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        09:07:01
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): GS_TANK ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOG IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
567490.05	4220208.62	0.94536	(11020623)	567540.05	4220208.62	1.12730	(11020623)
567340.05	4220258.62	0.59211	(09121522)	567390.05	4220258.62	0.70943	(10021124)
567440.05	4220258.62	0.70310	(10021124)	567490.05	4220258.62	0.82634	(10020908)
567540.05	4220258.62	1.01795	(10020908)	567340.05	4220308.62	0.61976	(10120420)
567390.05	4220308.62	0.68563	(10120420)	567440.05	4220308.62	0.69221	(10020504)
567490.05	4220308.62	0.80540	(12012319)	567540.05	4220308.62	0.98611	(09010606)
567340.05	4220358.62	0.60055	(11011419)	567390.05	4220358.62	0.66752	(12120323)
567440.05	4220358.62	0.74062	(09010418)	567490.05	4220358.62	0.77717	(09012306)
567540.05	4220358.62	0.91281	(10013123)	567340.05	4220408.62	0.58002	(09012306)
567390.05	4220408.62	0.64046	(12120720)	567440.05	4220408.62	0.72662	(09011419)
567490.05	4220408.62	0.81549	(13021419)	567540.05	4220408.62	0.86177	(12120505)
567340.05	4220458.62	0.52799	(09011419)	567390.05	4220458.62	0.60194	(13010721)
567440.05	4220458.62	0.71182	(12120404)	567490.05	4220458.62	0.80519	(12120505)
567540.05	4220458.62	0.90221	(12120521)	567340.05	4220508.62	0.48612	(11021019)
567390.05	4220508.62	0.59633	(12012919)	567440.05	4220508.62	0.66628	(12010518)
567490.05	4220508.62	0.67596	(12120521)	567540.05			

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4220508.62        0.74241  (11012319)
       567340.05   4220558.62        0.47221  (12120505)                567390.05
4220558.62        0.56019  (09122308)
       567440.05   4220558.62        0.60683  (11122901)                567490.05
4220558.62        0.63731  (11012319)
       567540.05   4220558.62        0.74111  (09022720)                567340.05
4220608.62        0.47972  (12120521)
       567390.05   4220608.62        0.51471  (11122901)                567440.05
4220608.62        0.56853  (10021224)
       567490.05   4220608.62        0.61122  (09022720)                567540.05
4220608.62        0.56920  (13012406)
       567324.60   4219559.23        0.24643  (09011321)                567374.60
4219559.23        0.26209  (11121807)
       567424.60   4219559.23        0.27685  (11122903)                567324.60
4219609.23        0.30884  (10021308)
       567374.60   4219609.23        0.27752  (11022803)                567424.60
4219609.23        0.28941  (12021624)
       567324.60   4219659.23        0.34315  (09020622)                567374.60
4219659.23        0.29960  (10021308)
       567424.60   4219659.23        0.31686  (11121807)                567324.60
4219709.23        0.37137  (10010704)
       567374.60   4219709.23        0.38927  (09020622)                567424.60
4219709.23        0.40675  (09011321)
       567324.60   4219759.23        0.40594  (13012302)                567374.60
4219759.23        0.43465  (13021522)
       567324.60   4219809.23        0.43009  (13122121)                567374.60
4219809.23        0.45442  (13010320)
       567524.55   4219558.98        0.36832  (10021707)                567574.55
4219558.98        0.39166  (10020905)
       567624.55   4219558.98        0.40217  (10012321)                567674.55
4219558.98        0.36191  (13022708)
       567724.55   4219558.98        0.30625  (13010304)                567774.55
4219558.98        0.31684  (12020121)
       567824.55   4219558.98        0.38928  (09020222)                567874.55
4219558.98        0.33618  (10121307)
       567924.55   4219558.98        0.31358  (13020122)                567524.55
4219608.98        0.41097  (09123021)
       567574.55   4219608.98        0.41393  (10021723)                567624.55
4219608.98        0.39056  (11012120)
       567674.55   4219608.98        0.33206  (10012906)                567724.55
4219608.98        0.36024  (13010304)
       567774.55   4219608.98        0.43562  (12020121)                567824.55
4219608.98        0.49139  (09020222)
       567874.55   4219608.98        0.47556  (10121307)                567924.55
4219608.98        0.41134  (13022308)
       567524.55   4219658.98        0.44684  (09020619)                567574.55
4219658.98        0.44313  (11012908)
       567624.55   4219658.98        0.40701  (12022206)                567674.55
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 4219658.98   0.35727 (12120620)
↑ *** AERMOD - VERSION 19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION 14134 ***   ***
                        ***   09:07:01

                                   PAGE 19
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   GS_TANK   ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF TOG   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
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- -
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 4219658.98   0.51618 (10021404)
        567824.55   4219658.98   0.51376 (09020222)   567874.55
 4219658.98   0.53400 (10121307)
        567924.55   4219658.98   0.53415 (10010124)   567624.55
 4219708.98   0.53105 (10120222)
        567674.55   4219708.98   0.51176 (10012321)   567724.55
 4219708.98   0.53660 (09010202)
        567774.55   4219708.98   0.57559 (10021404)   567824.55
 4219708.98   0.50055 (09020222)
        567874.55   4219708.98   0.51711 (10121307)   567924.55
 4219708.98   0.51128 (10010124)
        567674.55   4219758.98   0.51074 (10021008)   567724.55
 4219758.98   0.53112 (13022708)
        567774.55   4219758.98   0.55211 (09123006)   567824.55
 4219758.98   0.57500 (09020222)
        567874.55   4219758.98   0.58693 (10121307)   567924.55
 4219758.98   0.57922 (09121708)
        567924.57   4219558.79   0.31343 (13020122)   567974.57
 4219558.79   0.31645 (10012905)
        568024.57   4219558.79   0.37141 (09012022)   568074.57
 4219558.79   0.41433 (12020222)
        567924.57   4219608.79   0.41059 (13022308)   567974.57
 4219608.79   0.41085 (12121607)

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       568024.57   4219608.79        0.45544  (10121107)              568074.57
4219608.79        0.44983  (11011324)
       567924.57   4219658.79        0.53415  (10010124)              567974.57
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       568024.57   4219658.79        0.47861  (13121623)              568074.57
4219658.79        0.40972  (12013106)
       567924.57   4219708.79        0.51103  (10010124)              567974.57
4219708.79        0.48899  (09022824)
       568024.57   4219708.79        0.46859  (12021202)              568074.57
4219708.79        0.44811  (12010303)
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4219758.79        0.57892  (09121708)
       567974.57   4219758.79        0.56251  (10121107)              568024.57
4219758.79        0.53105  (11011324)
       568074.57   4219758.79        0.50819  (10121104)              568124.57
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       567924.57   4219808.79        0.66111  (12121607)              567974.57
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       568024.57   4219808.79        0.59593  (12010303)              568074.57
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       568074.57   4219858.79        0.75641  (13010302)              568124.57
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4220008.79        1.25111  (13010302)
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4220008.79        1.00611  (10010524)
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       567974.57   4220058.79        1.64220  (10121106)              568024.57
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       568074.57   4220058.79        1.09037  (10121105)              568124.57
4220058.79        0.96114  (10020706)
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4220108.79        1.93299  (13012402)
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 4220158.79        1.43172  (10012921)
       568074.57   4220158.79        1.09115  (09012321)               568124.57
 4220158.79        0.84346  (11020705)
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        09:07:01

                                  PAGE  20
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                     ** CONC OF TOG      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       568124.99   4219708.95        0.49197  (09122024)               568174.99
 4219708.95        0.50918  (13010302)
       568224.99   4219708.95        0.44524  (09011402)               568274.99
 4219708.95        0.39708  (12120301)
       568124.99   4219758.95        0.56422  (10022503)               568174.99
 4219758.95        0.51191  (11011318)
       568224.99   4219758.95        0.43522  (10121106)               568274.99
 4219758.95        0.37505  (10020624)
       568124.99   4219808.95        0.62741  (13010302)               568174.99
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       568224.99   4219808.95        0.45623  (10020624)               568274.99
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 4219858.95        0.59802  (10020624)
       568224.99   4219858.95        0.52103  (12013105)               568274.99
 4219858.95        0.43192  (13012402)
       568324.99   4219858.95        0.38741  (12013003)               568374.99
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       568524.99   4219858.95        0.31885  (09011608)                568124.99
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       568174.99   4219908.95        0.64335  (12013105)                568224.99
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       568274.99   4219908.95        0.46422  (10121105)                568324.99
4219908.95        0.40719  (10011624)
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4219958.95        0.53139  (10020706)
       568324.99   4219958.95        0.44074  (10020706)                568374.99
4219958.95        0.41529  (13011121)
       568424.99   4219958.95        0.40000  (12122319)                568474.99
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       568174.99   4220008.95        0.79500  (10011624)                568224.99
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       568274.99   4220008.95        0.55866  (13011121)                568324.99
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 4220208.95        0.52853  (10021507)
↑ *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:07:01

                                   PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF TOG      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
       568374.99   4220208.95        0.48014  (10021507)                568424.99
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       568224.99   4220258.95        0.61446  (09021124)                568274.99
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       568324.99   4220258.95        0.45916  (10020918)                568374.99
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       568174.99   4220408.95        0.64387  (12022723)              568224.99
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       568374.99   4220508.95        0.34951  (12021104)              568424.99
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       568524.99   4220558.95        0.25224  (10121423)                568124.99
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       568174.99   4220608.95        0.51410  (11121923)                568224.99
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       568374.99   4220608.95        0.36329  (13022522)

 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        09:07:01

                                  PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                     ** CONC OF TOG      IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       567539.85   4220159.17        0.22610c (11010824)                567589.85
 4220159.17        0.26563c (11010824)
       567639.85   4220159.17        0.33534c (10020124)                567539.85
 4220209.17        0.31176b (11011724)
       567589.85   4220209.17        0.39213b (11011724)                567639.85
 4220209.17        0.52726c (11010824)
       567539.85   4220259.17        0.32727  (09010124)                567589.85
 4220259.17        0.43903  (09010124)
       567639.85   4220259.17        0.55671  (09010124)                567689.85
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4220259.17        0.74741  (09010124)
       567539.85   4220309.17        0.24748  (09010124)                567589.85
4220309.17        0.27919  (09010124)
       567639.85   4220309.17        0.28090b (11110224)                567689.85
4220309.17        0.37561c (09112324)
       567539.85   4220359.17        0.14417b (11110224)                567589.85
4220359.17        0.19168c (09112324)
       567639.85   4220359.17        0.24561c (13121924)                567689.85
4220359.17        0.28339c (13020324)
       567739.85   4220359.17        0.38321  (12122124)                567539.85
4220409.17        0.14319c (13121924)
       567589.85   4220409.17        0.16291c (13121924)                567639.85
4220409.17        0.20428c (13020324)
       567689.85   4220409.17        0.21366  (12122124)                567739.85
4220409.17        0.24678  (12122124)
       567539.85   4220459.17        0.12027b (13020924)                567589.85
4220459.17        0.14770c (13020324)
       567639.85   4220459.17        0.17234c (13020324)                567689.85
4220459.17        0.16541  (12122124)
       567739.85   4220459.17        0.20001c (10011724)                567539.85
4220509.17        0.09205c (11021724)
       567589.85   4220509.17        0.13820c (13020324)                567639.85
4220509.17        0.14741  (12122124)
       567689.85   4220509.17        0.12174  (12122124)                567739.85
4220509.17        0.16104b (13042024)
       567539.85   4220559.17        0.11091c (13020324)                567589.85
4220559.17        0.11038  (12122124)
       567639.85   4220559.17        0.11122  (12122124)                567689.85
4220559.17        0.10889c (10011724)
       567739.85   4220559.17        0.13187b (13042024)                567789.85
4220559.17        0.15503b (09020724)
       567539.85   4220609.17        0.08583  (12122124)                567589.85
4220609.17        0.08881  (12122124)
       567639.85   4220609.17        0.08043  (12122124)                567689.85
4220609.17        0.09725c (10011724)
       567739.85   4220609.17        0.10901b (13042024)                567789.85
4220609.17        0.13218b (09020724)
       567340.05   4219808.62        0.04955  (10010724)                567340.05
4219858.62        0.04128  (10010724)
       567390.05   4219858.62        0.04636  (10010724)                567340.05
4219908.62        0.03015c (10121324)
       567390.05   4219908.62        0.03380  (10010724)                567440.05
4219908.62        0.04852  (10010724)
       567490.05   4219908.62        0.07662  (10010724)                567340.05
4219958.62        0.04888c (12123124)
       567390.05   4219958.62        0.03953c (12123124)                567440.05
4219958.62        0.03573  (10010724)
       567490.05   4219958.62        0.07987  (10010724)                567340.05
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 4220008.62        0.05136c (10010224)
        567390.05   4220008.62        0.05458c (12123124)                567440.05
 4220008.62        0.06191c (12123124)
        567490.05   4220008.62        0.06091c (12123124)                567540.05
 4220008.62        0.09519  (10010724)
        567340.05   4220058.62        0.04522c (10020124)                567390.05
 4220058.62        0.05743c (10020124)
        567440.05   4220058.62        0.07431c (10010224)                567490.05
 4220058.62        0.11203c (12123124)
        567540.05   4220058.62        0.12593c (12123124)                567340.05
 4220108.62        0.05206c (11010824)
        567390.05   4220108.62        0.05898m (11011224)                567440.05
 4220108.62        0.08336m (11011224)
        567490.05   4220108.62        0.13136c (10020124)                567540.05
 4220108.62        0.16260c (10020124)
        567340.05   4220158.62        0.06707c (11010824)                567390.05
 4220158.62        0.08329c (11010824)
        567440.05   4220158.62        0.13420c (11010824)                567490.05
 4220158.62        0.19020c (11010824)
        567540.05   4220158.62        0.22507c (11010824)                567340.05
 4220208.62        0.10883b (11011724)
        567390.05   4220208.62        0.16201b (11011724)                567440.05
 4220208.62        0.20816b (11011724)
↑ *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:07:01

                                   PAGE  23
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF TOG      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
        567490.05   4220208.62        0.25344b (11011724)                567540.05
 4220208.62        0.31084b (11011724)
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       567340.05   4220258.62        0.13464  (09010124)              567390.05
4220258.62        0.18201  (09010124)
       567440.05   4220258.62        0.21492  (09010124)              567490.05
4220258.62        0.26185  (09010124)
       567540.05   4220258.62        0.32776  (09010124)              567340.05
4220308.62        0.12690  (09010124)
       567390.05   4220308.62        0.15397  (09010124)              567440.05
4220308.62        0.18364  (09010124)
       567490.05   4220308.62        0.21479  (09010124)              567540.05
4220308.62        0.24895  (09010124)
       567340.05   4220358.62        0.09744  (09010124)              567390.05
4220358.62        0.11426  (09010124)
       567440.05   4220358.62        0.12789b (11110224)              567490.05
4220358.62        0.12950b (11110224)
       567540.05   4220358.62        0.14485b (11110224)              567340.05
4220408.62        0.08840b (11110224)
       567390.05   4220408.62        0.09058b (11110224)              567440.05
4220408.62        0.09288c (13032324)
       567490.05   4220408.62        0.12216c (09112324)              567540.05
4220408.62        0.14332c (13121924)
       567340.05   4220458.62        0.06541c (13032324)              567390.05
4220458.62        0.07466c (09112324)
       567440.05   4220458.62        0.10452c (09112324)              567490.05
4220458.62        0.12087c (09112324)
       567540.05   4220458.62        0.12096b (13020924)              567340.05
4220508.62        0.06176c (09112324)
       567390.05   4220508.62        0.08717c (09112324)              567440.05
4220508.62        0.09573b (13020924)
       567490.05   4220508.62        0.08082c (11112124)              567540.05
4220508.62        0.09216c (11021724)
       567340.05   4220558.62        0.06357c (09112324)              567390.05
4220558.62        0.08112b (13020924)
       567440.05   4220558.62        0.07041c (11112124)              567490.05
4220558.62        0.07783c (11021724)
       567540.05   4220558.62        0.11104c (13020324)              567340.05
4220608.62        0.06591b (13020924)
       567390.05   4220608.62        0.06187c (11021724)              567440.05
4220608.62        0.07468c (11021724)
       567490.05   4220608.62        0.09222c (13020324)              567540.05
4220608.62        0.08596  (12122124)
       567324.60   4219559.23        0.03473c (11120924)              567374.60
4219559.23        0.04140c (11120924)
       567424.60   4219559.23        0.04614m (09020624)              567324.60
4219609.23        0.03647c (09111524)
       567374.60   4219609.23        0.04130c (11120924)              567424.60
4219609.23        0.04749c (11120924)
       567324.60   4219659.23        0.04087c (09012824)              567374.60
4219659.23        0.03788c (13010924)
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       567374.60   4219709.23        0.04647c (09012824)               567424.60
 4219709.23        0.04938c (09111524)
       567324.60   4219759.23        0.04664  (10010724)               567374.60
 4219759.23        0.04932c (09012824)
       567324.60   4219809.23        0.04768  (10010724)               567374.60
 4219809.23        0.05144  (10010724)
       567524.55   4219558.98        0.05929c (10021724)               567574.55
 4219558.98        0.06233c (13011524)
       567624.55   4219558.98        0.07281c (13122324)               567674.55
 4219558.98        0.05547c (12111124)
       567724.55   4219558.98        0.06202c (10121524)               567774.55
 4219558.98        0.06260c (10120124)
       567824.55   4219558.98        0.06928c (12011824)               567874.55
 4219558.98        0.04828c (13020424)
       567924.55   4219558.98        0.04296c (11122724)               567524.55
 4219608.98        0.06116c (10021724)
       567574.55   4219608.98        0.05961c (10021724)               567624.55
 4219608.98        0.06635c (13122324)
       567674.55   4219608.98        0.04944c (12111124)               567724.55
 4219608.98        0.06656c (13120624)
       567774.55   4219608.98        0.09082c (10120124)               567824.55
 4219608.98        0.09277c (12011824)
       567874.55   4219608.98        0.07103c (13020424)               567924.55
 4219608.98        0.06022c (11122724)
       567524.55   4219658.98        0.06897m (09020624)               567574.55
 4219658.98        0.07116c (10021724)
       567624.55   4219658.98        0.05952c (13122324)               567674.55
 4219658.98        0.05953c (13122324)
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:07:01

                                   PAGE  24
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     GS_TANK     ,

                                         *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF TOG      IN MICROGRAMS/M**3
                    **
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X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
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567824.55	4219658.98	0.10445b (09022024)	567874.55	4219658.98	0.09005c (12011824)
567924.55	4219658.98	0.08310c (11020524)	567624.55	4219708.98	0.08134c (13011524)
567674.55	4219708.98	0.09199c (13122324)	567724.55	4219708.98	0.10502c (13120624)
567774.55	4219708.98	0.13901c (10120124)	567824.55	4219708.98	0.11079b (09022024)
567874.55	4219708.98	0.09642c (12011824)	567924.55	4219708.98	0.08565c (11020524)
567674.55	4219758.98	0.10848c (13011524)	567724.55	4219758.98	0.12839c (13121424)
567774.55	4219758.98	0.14954c (10120124)	567824.55	4219758.98	0.13103c (13011624)
567874.55	4219758.98	0.10942c (12011824)	567924.55	4219758.98	0.09794c (11020524)
567924.57	4219558.79	0.04293c (11122724)	567974.57	4219558.79	0.04410c (11020524)
568024.57	4219558.79	0.03832b (09011424)	568074.57	4219558.79	0.05552c (13011724)
567924.57	4219608.79	0.06011c (11122724)	567974.57	4219608.79	0.05155c (11020524)
568024.57	4219608.79	0.04733c (13011724)	568074.57	4219608.79	0.05944c (13011724)
567924.57	4219658.79	0.08306c (11020524)	567974.57	4219658.79	0.06876b (09011424)
568024.57	4219658.79	0.06384c (13011724)	568074.57	4219658.79	0.05056c (13011724)
567924.57	4219708.79	0.08560c (11020524)	567974.57	4219708.79	0.07216b (09012024)
568024.57	4219708.79	0.06481c (13011724)	568074.57	4219708.79	0.05880c (10121124)
568124.57	4219708.79	0.05811c (10121124)	567924.57	4219758.79	0.09789c (11020524)
567974.57	4219758.79	0.07990b (09012024)	568024.57	4219758.79	0.06905c (13011724)
568074.57	4219758.79	0.06840c (10121124)	568124.57	4219758.79	0.05824c (11031724)
567924.57	4219808.79	0.10918c (11020524)	567974.57	4219808.79	0.08649c (13011724)
568024.57	4219808.79	0.08238c (10121124)	568074.57		

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       568124.57   4219808.79        0.06652c (12121824)                567924.57
 4219858.79        0.12196b (09012024)
       567974.57   4219858.79        0.10008c (13011724)                568024.57
 4219858.79        0.09868c (10121124)
       568074.57   4219858.79        0.08023c (11031724)                568124.57
 4219858.79        0.09935c (12121824)
       567924.57   4219908.79        0.14520b (09012024)                567974.57
 4219908.79        0.12562c (10121124)
       568024.57   4219908.79        0.10934c (10121124)                568074.57
 4219908.79        0.12558c (12121824)
       568124.57   4219908.79        0.11762c (10042124)                567924.57
 4219958.79        0.17552b (13020824)
       567974.57   4219958.79        0.15857c (10121124)                568024.57
 4219958.79        0.15231c (12121824)
       568074.57   4219958.79        0.15143c (10042124)                568124.57
 4219958.79        0.12405c (10123024)
       567924.57   4220008.79        0.22886c (10121124)                567974.57
 4220008.79        0.19081c (12121824)
       568024.57   4220008.79        0.20024c (12121824)                568074.57
 4220008.79        0.16783c (10123024)
       568124.57   4220008.79        0.13179c (10123024)                567924.57
 4220058.79        0.31553c (10121124)
       567974.57   4220058.79        0.29803c (12121824)                568024.57
 4220058.79        0.24304c (10123024)
       568074.57   4220058.79        0.14922c (10123024)                568124.57
 4220058.79        0.09138b (09041324)
       567924.57   4220108.79        0.50057c (12121824)                567974.57
 4220108.79        0.39367c (10123024)
       568024.57   4220108.79        0.20304c (10123024)                568074.57
 4220108.79        0.14233b (12090724)
       568124.57   4220108.79        0.13995b (12090724)                567924.57
 4220158.79        0.72757c (10123024)
       567974.57   4220158.79        0.35975b (12090724)                568024.57
 4220158.79        0.29836b (12090724)
       568074.57   4220158.79        0.23563b (12090724)                568124.57
 4220158.79        0.18587b (12090724)
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                       ***        09:07:01

                                  PAGE  25
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
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NorthgateVallego_Gas.ADO
INCLUDING SOURCE(S): GS_TANK ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOG IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
568124.99	4219708.95	0.05803c	(10121124)	568174.99	4219708.95	0.05024c	(11031724)
568224.99	4219708.95	0.05289c	(12121824)	568274.99	4219708.95	0.05557c	(12121824)
568124.99	4219758.95	0.05824c	(11031724)	568174.99	4219758.95	0.05598c	(12121824)
568224.99	4219758.95	0.06026c	(12121824)	568274.99	4219758.95	0.05613c	(10042124)
568124.99	4219808.95	0.06676c	(12121824)	568174.99	4219808.95	0.07617c	(12121824)
568224.99	4219808.95	0.06923c	(10042124)	568274.99	4219808.95	0.04595c	(10042124)
568124.99	4219858.95	0.09950c	(12121824)	568174.99	4219858.95	0.09230c	(10042124)
568224.99	4219858.95	0.06315c	(10042124)	568274.99	4219858.95	0.05885c	(10123024)
568324.99	4219858.95	0.04866c	(10123024)	568374.99	4219858.95	0.03709b	(09041324)
568424.99	4219858.95	0.03218b	(09041324)	568474.99	4219858.95	0.02756b	(13041924)
568524.99	4219858.95	0.02862b	(13041924)	568124.99	4219908.95	0.11755c	(10042124)
568174.99	4219908.95	0.08689c	(10123024)	568224.99	4219908.95	0.07830c	(10123024)
568274.99	4219908.95	0.05354c	(10123024)	568324.99	4219908.95	0.03979b	(09041324)
568374.99	4219908.95	0.03477b	(13041924)	568424.99	4219908.95	0.03271b	(13041924)
568474.99	4219908.95	0.03287c	(10021924)	568524.99	4219908.95	0.03254c	(10042824)
568124.99	4219958.95	0.12422c	(10123024)	568174.99	4219958.95	0.11206c	(10123024)
568224.99	4219958.95	0.06829c	(10123024)	568274.99	4219958.95	0.04938b	(09041324)
568324.99	4219958.95	0.03966b	(13041924)	568374.99	4219958.95	0.03728c	(10021924)

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 4219958.95        0.04010b (12090724)
       568524.99   4219958.95        0.03843b (12090724)                568124.99
 4220008.95        0.13117c (10123024)
       568174.99   4220008.95        0.08010b (09041324)                568224.99
 4220008.95        0.06294b (13041924)
       568274.99   4220008.95        0.05790c (10021924)                568324.99
 4220008.95        0.05285c (10042824)
       568374.99   4220008.95        0.05251b (12090724)                568424.99
 4220008.95        0.04920b (12090724)
       568474.99   4220008.95        0.04621b (12090724)                568524.99
 4220008.95        0.03655b (09042924)
       568124.99   4220058.95        0.09102b (09041324)                568174.99
 4220058.95        0.08772c (10021924)
       568224.99   4220058.95        0.08341b (12090724)                568274.99
 4220058.95        0.07764b (12090724)
       568324.99   4220058.95        0.07092b (12090724)                568374.99
 4220058.95        0.06290b (12090724)
       568424.99   4220058.95        0.05447b (12090724)                568474.99
 4220058.95        0.04435c (12021824)
       568524.99   4220058.95        0.03797c (12021824)                568124.99
 4220108.95        0.14006b (12090724)
       568174.99   4220108.95        0.12299b (12090724)                568224.99
 4220108.95        0.10708b (12090724)
       568274.99   4220108.95        0.09180b (12090724)                568324.99
 4220108.95        0.08040b (12090724)
       568374.99   4220108.95        0.06570b (12090724)                568424.99
 4220108.95        0.04831c (11041624)
       568474.99   4220108.95        0.04292c (11041624)                568524.99
 4220108.95        0.04138c (11041624)
       568124.99   4220158.95        0.18560b (12090724)                568174.99
 4220158.95        0.14855b (12090724)
       568224.99   4220158.95        0.12080b (12090724)                568274.99
 4220158.95        0.10209b (12090724)
       568324.99   4220158.95        0.08661b (12090724)                568374.99
 4220158.95        0.06977b (12090724)
       568424.99   4220158.95        0.06145c (12021124)                568474.99
 4220158.95        0.05658c (12021124)
       568524.99   4220158.95        0.05190c (12021124)                568124.99
 4220208.95        0.19648b (12090724)
       568174.99   4220208.95        0.15849b (12090724)                568224.99
 4220208.95        0.12459b (12090724)
       568274.99   4220208.95        0.10417b (12090724)                568324.99
 4220208.95        0.09216b (12090724)
 *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): GS_TANK ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOG IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
568374.99	4220208.95	0.07934b	(12090724)	568424.99	4220208.95	0.06954b	(12090724)
568474.99	4220208.95	0.05925b	(12090724)	568524.99	4220208.95	0.05251b	(12090724)
568124.99	4220258.95	0.16037b	(12090724)	568174.99	4220258.95	0.13032b	(12090724)
568224.99	4220258.95	0.10817b	(12090724)	568274.99	4220258.95	0.09243b	(12090724)
568324.99	4220258.95	0.07920b	(12090724)	568374.99	4220258.95	0.06896b	(12090724)
568424.99	4220258.95	0.06111b	(12090724)	568474.99	4220258.95	0.05917b	(12090724)
568524.99	4220258.95	0.05324b	(12090724)	568124.99	4220308.95	0.15624c	(10022024)
568174.99	4220308.95	0.12448c	(10022024)	568224.99	4220308.95	0.09946c	(10022024)
568274.99	4220308.95	0.08058c	(10022024)	568324.99	4220308.95	0.06746c	(09052824)
568374.99	4220308.95	0.06113c	(09052824)	568424.99	4220308.95	0.05219c	(09052824)
568474.99	4220308.95	0.04648c	(09052824)	568524.99	4220308.95	0.04204b	(12090724)
568124.99	4220358.95	0.12290c	(09090424)	568174.99	4220358.95	0.10869c	(10022024)
568224.99	4220358.95	0.09618c	(10022024)	568274.99	4220358.95	0.08339c	(10022024)
568324.99	4220358.95	0.07039c	(10022024)	568374.99	4220358.95	0.06012c	(10022024)
568424.99	4220358.95	0.05141c	(10022024)	568474.99			

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 4220358.95         0.04417c (10022024)
        568524.99    4220358.95         0.03847c (09052824)                568124.99
 4220408.95         0.11806c (12022724)
        568174.99    4220408.95         0.10042c (12022724)                568224.99
 4220408.95         0.07878c (09090424)
        568274.99    4220408.95         0.07043c (10022024)                568324.99
 4220408.95         0.06474c (10022024)
        568374.99    4220408.95         0.05815c (10022024)                568424.99
 4220408.95         0.05204c (10022024)
        568474.99    4220408.95         0.04616c (10022024)                568524.99
 4220408.95         0.04069c (10022024)
        568124.99    4220458.95         0.09280c (13020224)                568174.99
 4220458.95         0.08715c (13020224)
        568224.99    4220458.95         0.08055c (12022724)                568274.99
 4220458.95         0.06755c (12022724)
        568324.99    4220458.95         0.05553c (09090424)                568374.99
 4220458.95         0.05097c (09090424)
        568424.99    4220458.95         0.04741c (10022024)                568474.99
 4220458.95         0.04380c (10022024)
        568524.99    4220458.95         0.03992c (10022024)                568124.99
 4220508.95         0.08090b (11021224)
        568174.99    4220508.95         0.07098c (11123024)                568224.99
 4220508.95         0.06887c (13020224)
        568274.99    4220508.95         0.06431c (12022724)                568324.99
 4220508.95         0.05896c (12022724)
        568374.99    4220508.95         0.04950c (12022724)                568424.99
 4220508.95         0.04207c (09090424)
        568474.99    4220508.95         0.03907c (09090424)                568524.99
 4220508.95         0.03602c (10022024)
        568124.99    4220558.95         0.07791b (13051124)                568174.99
 4220558.95         0.06580b (11021224)
        568224.99    4220558.95         0.05693c (11123024)                568274.99
 4220558.95         0.05418c (13020224)
        568324.99    4220558.95         0.05292c (13020224)                568374.99
 4220558.95         0.05019c (12022724)
        568424.99    4220558.95         0.04480c (12022724)                568474.99
 4220558.95         0.03749c (12022724)
        568524.99    4220558.95         0.03300c (09090424)                568124.99
 4220608.95         0.07221b (13051124)
        568174.99    4220608.95         0.06062b (13051124)                568224.99
 4220608.95         0.05437b (11021224)
        568274.99    4220608.95         0.04595c (11123024)                568324.99
 4220608.95         0.04477c (11123024)
        568374.99    4220608.95         0.04404c (13020224)
```

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***

** CONC OF TOG   IN MICROGRAMS/M**3
**

GROUP ID	NETWORK AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.07786 AT (567924.57, 4220158.79, 36.30, 36.30, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.05559 AT (567689.85, 4220259.17, 29.96, 74.49, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.05357 AT (567974.57, 4220158.79, 37.14, 37.14, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.04134 AT (567924.57, 4220108.79, 36.50, 36.50, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.04057 AT (567689.85, 4220309.17, 29.22, 74.49, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.03940 AT (568024.57, 4220158.79, 36.67, 36.67, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.03894 AT (567739.85, 4220359.17, 30.04, 30.04, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.03638 AT (567639.85, 4220259.17, 30.25, 74.49, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.03440 AT (568124.99, 4220258.95, 32.75, 324.62, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.03259 AT (568124.99, 4220308.95, 30.26, 324.62, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF TOG   IN MICROGRAMS/M**3
**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK OF TYPE	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	3.12752	ON 10121105:	AT (567924.57, 4220158.79, 36.30, 36.30, 0.00)	DC

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF TOG   IN MICROGRAMS/M**3
**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK	RECEPTOR

```
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.74741  ON 09010124: AT (  567689.85,
4220259.17,    29.96,    74.49,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION  19191 ***   ***
C:\Users\jared.stine\Desktop\NorthgateVallejo_HRA\NorthgateVallejo_H ***
12/18/19
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:07:01

                                   PAGE  30
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of        10597 Informational Message(s)

 A Total of        43872 Hours Were Processed

 A Total of         9342 Calm Hours Identified

 A Total of         1255 Missing Hours Identified (  2.86 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W481   43873         MAIN: Data Remaining After End of Year. Number of Hours=
       48

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

AERSCREEN 16216 / AERMOD 18081 02/02/19
12:44:40

TITLE: Northgatge ConstPM10

********** VOLUME PARAMETERS **********

SOURCE EMISSION RATE:	0.499E-02	g/s	0.396E-01	lb/hr
VOLUME HEIGHT:	5.00	meters	16.40	feet
INITIAL LATERAL DIMENSION:	450.00	meters	1476.38	feet
INITIAL VERTICAL DIMENSION:	1.00	meters	3.28	feet
RURAL OR URBAN:	URBAN			
POPULATION:	445458			

INITIAL PROBE DISTANCE = 5000. meters 16404. feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** PROBE ANALYSIS **********
25 meter receptor spacing: 969. meters - 5000. meters

Zo SECTOR	ROUGHNESS LENGTH	1-HR CONC (ug/m3)	DIST (m)	TEMPORAL PERIOD
1*	1.000	0.2081E-01	968.5	ANN

* = worst case flow sector

********** MAKEMET METEOROLOGY PARAMETERS **********

MIN/MAX TEMPERATURE: 275.0 / 300.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: USER ENTERED

ALBEDO: 0.21
BOWEN RATIO: 1.63
ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	01	10	10	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-1.28	0.043	-9.000	0.020	-999.	21.	5.9	1.000	1.63	0.21	0.50

HT	REF TA	HT
10.0	300.0	2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR	MO	DY	JDY	HR
10	01	10	10	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-1.28	0.043	-9.000	0.020	-999.	21.	5.9	1.000	1.63	0.21	0.50

HT	REF TA	HT
10.0	300.0	2.0

****
********** AERSCREEN AUTOMATED DISTANCES **********
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
****

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
968.50	0.2081E-01	3000.00	0.5488E-02
975.00	0.2058E-01	3025.00	0.5471E-02
1000.00	0.1972E-01	3050.00	0.5455E-02
1025.00	0.1893E-01	3075.00	0.5439E-02
1050.00	0.1818E-01	3100.00	0.5423E-02
1075.00	0.1748E-01	3125.00	0.5407E-02
1100.00	0.1682E-01	3150.00	0.5391E-02
1125.00	0.1620E-01	3175.00	0.5375E-02
1150.00	0.1562E-01	3200.00	0.5360E-02
1175.00	0.1507E-01	3225.00	0.5344E-02
1200.00	0.1455E-01	3250.00	0.5329E-02
1225.00	0.1405E-01	3275.00	0.5313E-02
1250.00	0.1359E-01	3300.00	0.5298E-02
1275.00	0.1314E-01	3325.00	0.5283E-02
1300.00	0.1272E-01	3350.00	0.5267E-02
1325.00	0.1233E-01	3375.00	0.5252E-02
1350.00	0.1195E-01	3400.00	0.5237E-02
1375.00	0.1159E-01	3425.00	0.5222E-02
1400.00	0.1124E-01	3450.00	0.5207E-02
1425.00	0.1092E-01	3475.00	0.5193E-02
1450.00	0.1060E-01	3500.00	0.5178E-02
1475.00	0.1030E-01	3525.00	0.5163E-02
1500.00	0.1002E-01	3550.00	0.5149E-02
1525.00	0.9746E-02	3575.00	0.5134E-02
1550.00	0.9485E-02	3600.00	0.5120E-02
1575.00	0.9235E-02	3625.00	0.5106E-02
1600.00	0.8995E-02	3650.00	0.5091E-02
1625.00	0.8766E-02	3675.00	0.5077E-02
1650.00	0.8545E-02	3700.00	0.5063E-02
1675.00	0.8333E-02	3725.00	0.5049E-02
1700.00	0.8129E-02	3750.00	0.5035E-02
1725.00	0.7934E-02	3775.00	0.5021E-02
1750.00	0.7745E-02	3800.00	0.5008E-02
1775.00	0.7564E-02	3825.00	0.4994E-02
1800.00	0.7390E-02	3850.00	0.4980E-02
1825.00	0.7221E-02	3875.00	0.4967E-02
1850.00	0.7059E-02	3900.00	0.4953E-02
1875.00	0.6903E-02	3925.00	0.4940E-02
1900.00	0.6752E-02	3950.00	0.4926E-02
1925.00	0.6606E-02	3975.00	0.4913E-02
1950.00	0.6465E-02	4000.00	0.4900E-02
1975.00	0.6329E-02	4025.00	0.4887E-02
2000.00	0.6241E-02	4050.00	0.4874E-02
2025.00	0.6219E-02	4075.00	0.4861E-02

2050.00	0.6198E-02	4100.00	0.4848E-02
2075.00	0.6176E-02	4125.00	0.4835E-02
2100.00	0.6155E-02	4150.00	0.4822E-02
2125.00	0.6134E-02	4175.00	0.4809E-02
2150.00	0.6113E-02	4200.00	0.4797E-02
2175.00	0.6092E-02	4225.00	0.4784E-02
2200.00	0.6072E-02	4250.00	0.4772E-02
2225.00	0.6051E-02	4275.00	0.4759E-02
2250.00	0.6031E-02	4300.00	0.4747E-02
2275.00	0.6011E-02	4325.00	0.4734E-02
2300.00	0.5991E-02	4350.00	0.4722E-02
2325.00	0.5971E-02	4375.00	0.4710E-02
2350.00	0.5951E-02	4400.00	0.4698E-02
2375.00	0.5932E-02	4425.00	0.4685E-02
2400.00	0.5913E-02	4450.00	0.4673E-02
2425.00	0.5893E-02	4475.00	0.4661E-02
2450.00	0.5874E-02	4500.00	0.4649E-02
2475.00	0.5855E-02	4525.00	0.4638E-02
2500.00	0.5837E-02	4550.00	0.4626E-02
2525.00	0.5818E-02	4575.00	0.4614E-02
2550.00	0.5800E-02	4600.00	0.4602E-02
2575.00	0.5781E-02	4625.00	0.4591E-02
2600.00	0.5763E-02	4650.00	0.4579E-02
2625.00	0.5745E-02	4675.00	0.4568E-02
2650.00	0.5727E-02	4700.00	0.4556E-02
2675.00	0.5709E-02	4725.00	0.4545E-02
2700.00	0.5691E-02	4750.00	0.4533E-02
2725.00	0.5674E-02	4775.00	0.4522E-02
2750.00	0.5656E-02	4800.00	0.4511E-02
2775.00	0.5639E-02	4825.00	0.4500E-02
2800.00	0.5622E-02	4850.00	0.4489E-02
2825.00	0.5605E-02	4875.00	0.4478E-02
2850.00	0.5588E-02	4900.00	0.4467E-02
2875.00	0.5571E-02	4925.00	0.4456E-02
2900.00	0.5554E-02	4950.00	0.4445E-02
2925.00	0.5537E-02	4975.00	0.4434E-02
2950.00	0.5521E-02	5000.00	0.4423E-02
2975.00	0.5504E-02		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)

FLAT TERRAIN	0.2081E-01	0.2081E-01	0.1873E-01	0.1249E-01	0.2081E-02

DISTANCE FROM SOURCE 968.50 meters

IMPACT AT THE AMBIENT BOUNDARY	0.2081E-01	0.2081E-01	0.1873E-01	0.1249E-01	0.2081E-02

DISTANCE FROM SOURCE 968.50 meters

AERSCREEN 16216 / AERMOD 18081 02/04/19
10:51:56

TITLE: Northgate ConstPM25

********** VOLUME PARAMETERS **********

SOURCE EMISSION RATE:	0.459E-02	g/s	0.365E-01	lb/hr
VOLUME HEIGHT:	5.00	meters	16.40	feet
INITIAL LATERAL DIMENSION:	450.00	meters	1476.38	feet
INITIAL VERTICAL DIMENSION:	1.00	meters	3.28	feet
RURAL OR URBAN:	URBAN			
POPULATION:	445458			

INITIAL PROBE DISTANCE = 5000. meters 16404. feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** PROBE ANALYSIS **********
25 meter receptor spacing: 969. meters - 5000. meters

Zo SECTOR	ROUGHNESS LENGTH	1-HR CONC (ug/m3)	DIST (m)	TEMPORAL PERIOD
1*	1.000	0.1916E-01	968.5	ANN

* = worst case flow sector

********** MAKEMET METEOROLOGY PARAMETERS **********

MIN/MAX TEMPERATURE: 275.0 / 300.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: USER ENTERED

ALBEDO: 0.21
BOWEN RATIO: 1.63
ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	01	10	10	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-1.28	0.043	-9.000	0.020	-999.	21.	5.9	1.000	1.63	0.21	0.50

HT	REF TA	HT
10.0	300.0	2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR	MO	DY	JDY	HR
10	01	10	10	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-1.28	0.043	-9.000	0.020	-999.	21.	5.9	1.000	1.63	0.21	0.50

HT	REF TA	HT
10.0	300.0	2.0

****
********** AERSCREEN AUTOMATED DISTANCES **********
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
****

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
968.50	0.1916E-01	3000.00	0.5052E-02
975.00	0.1894E-01	3025.00	0.5037E-02
1000.00	0.1816E-01	3050.00	0.5022E-02
1025.00	0.1743E-01	3075.00	0.5007E-02
1050.00	0.1674E-01	3100.00	0.4993E-02
1075.00	0.1609E-01	3125.00	0.4978E-02
1100.00	0.1549E-01	3150.00	0.4963E-02
1125.00	0.1492E-01	3175.00	0.4949E-02
1150.00	0.1438E-01	3200.00	0.4934E-02
1175.00	0.1387E-01	3225.00	0.4920E-02
1200.00	0.1339E-01	3250.00	0.4906E-02
1225.00	0.1294E-01	3275.00	0.4891E-02
1250.00	0.1251E-01	3300.00	0.4877E-02
1275.00	0.1210E-01	3325.00	0.4863E-02
1300.00	0.1171E-01	3350.00	0.4849E-02
1325.00	0.1135E-01	3375.00	0.4835E-02
1350.00	0.1100E-01	3400.00	0.4822E-02
1375.00	0.1067E-01	3425.00	0.4808E-02
1400.00	0.1035E-01	3450.00	0.4794E-02
1425.00	0.1005E-01	3475.00	0.4781E-02
1450.00	0.9761E-02	3500.00	0.4767E-02
1475.00	0.9487E-02	3525.00	0.4754E-02
1500.00	0.9224E-02	3550.00	0.4740E-02
1525.00	0.8973E-02	3575.00	0.4727E-02
1550.00	0.8732E-02	3600.00	0.4714E-02
1575.00	0.8502E-02	3625.00	0.4700E-02
1600.00	0.8282E-02	3650.00	0.4687E-02
1625.00	0.8070E-02	3675.00	0.4674E-02
1650.00	0.7867E-02	3700.00	0.4661E-02
1675.00	0.7672E-02	3725.00	0.4649E-02
1700.00	0.7484E-02	3750.00	0.4636E-02
1725.00	0.7304E-02	3775.00	0.4623E-02
1750.00	0.7131E-02	3800.00	0.4610E-02
1775.00	0.6964E-02	3825.00	0.4598E-02
1800.00	0.6803E-02	3850.00	0.4585E-02
1825.00	0.6648E-02	3875.00	0.4573E-02
1850.00	0.6499E-02	3900.00	0.4560E-02
1875.00	0.6355E-02	3925.00	0.4548E-02
1900.00	0.6216E-02	3950.00	0.4535E-02
1925.00	0.6082E-02	3975.00	0.4523E-02
1950.00	0.5952E-02	4000.00	0.4511E-02
1975.00	0.5827E-02	4025.00	0.4499E-02
2000.00	0.5746E-02	4050.00	0.4487E-02
2025.00	0.5726E-02	4075.00	0.4475E-02

2050.00	0.5706E-02	4100.00	0.4463E-02
2075.00	0.5686E-02	4125.00	0.4451E-02
2100.00	0.5667E-02	4150.00	0.4439E-02
2125.00	0.5647E-02	4175.00	0.4428E-02
2150.00	0.5628E-02	4200.00	0.4416E-02
2175.00	0.5609E-02	4225.00	0.4404E-02
2200.00	0.5590E-02	4250.00	0.4393E-02
2225.00	0.5571E-02	4275.00	0.4381E-02
2250.00	0.5552E-02	4300.00	0.4370E-02
2275.00	0.5534E-02	4325.00	0.4359E-02
2300.00	0.5515E-02	4350.00	0.4347E-02
2325.00	0.5497E-02	4375.00	0.4336E-02
2350.00	0.5479E-02	4400.00	0.4325E-02
2375.00	0.5461E-02	4425.00	0.4314E-02
2400.00	0.5443E-02	4450.00	0.4303E-02
2425.00	0.5426E-02	4475.00	0.4291E-02
2450.00	0.5408E-02	4500.00	0.4281E-02
2475.00	0.5391E-02	4525.00	0.4270E-02
2500.00	0.5373E-02	4550.00	0.4259E-02
2525.00	0.5356E-02	4575.00	0.4248E-02
2550.00	0.5339E-02	4600.00	0.4237E-02
2575.00	0.5322E-02	4625.00	0.4226E-02
2600.00	0.5306E-02	4650.00	0.4216E-02
2625.00	0.5289E-02	4675.00	0.4205E-02
2650.00	0.5272E-02	4700.00	0.4195E-02
2675.00	0.5256E-02	4725.00	0.4184E-02
2700.00	0.5240E-02	4750.00	0.4174E-02
2725.00	0.5223E-02	4775.00	0.4163E-02
2750.00	0.5207E-02	4800.00	0.4153E-02
2775.00	0.5191E-02	4825.00	0.4143E-02
2800.00	0.5176E-02	4850.00	0.4132E-02
2825.00	0.5160E-02	4875.00	0.4122E-02
2850.00	0.5144E-02	4900.00	0.4112E-02
2875.00	0.5129E-02	4925.00	0.4102E-02
2900.00	0.5113E-02	4950.00	0.4092E-02
2925.00	0.5098E-02	4975.00	0.4082E-02
2950.00	0.5083E-02	5000.00	0.4072E-02
2975.00	0.5067E-02		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)

FLAT TERRAIN	0.1916E-01	0.1916E-01	0.1724E-01	0.1149E-01	0.1916E-02

DISTANCE FROM SOURCE 968.50 meters

IMPACT AT THE AMBIENT BOUNDARY	0.1916E-01	0.1916E-01	0.1724E-01	0.1149E-01	0.1916E-02

DISTANCE FROM SOURCE 968.50 meters

COMPLIANCE CHECKLIST FOR NEW DEVELOPMENT

CITY OF VALLEJO QUALIFIED GREENHOUSE GAS REDUCTION PLAN

The following table will be used to determine compliance with the City's Climate Action Plan (CAP), a Qualified Greenhouse Gas Reduction Plan according to the Bay Area Air Quality Management District (BAAQMD) California Environmental Quality Act (CEQA) guidelines. A new development may use the CAP as a performance based threshold of significance for greenhouse gas emissions by demonstrating compliance with the CAP's goals, measures, and actions. The checklist below will aid in this endeavor.

The checklist will be updated regularly as the CAP's goals, policies and actions are implemented. The CAP policy language will be replaced by actual municipal code sections, where applicable.

Topic	Policy	City Requirements	Project Requirements	Compliance	Discussion
Energy Efficiency					
Building Standards	Require all new development to meet minimum energy efficiency and green building requirements, as amended and encourage new development to exceed Title 24 Energy Efficiency and CALGreen Standards.	Adopt the California Title 24 minimum requirements and encourage new construction and major remodels to adhere to a Tier 1 or Tier 2 standard of the CALGreen Code.	Comply with Title 24 minimum requirements and consider adhering to the Tier 1 or Tier 2 standards of the CALGreen Code for Energy Efficiency.	☐ Complies ☑ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	
		Require news constructed buildings and recommend that remodels over 50% and tenant improvements demonstrate compliance with the mandatory CALGreen Code requirements by completing a green building checklist when submitting a request for building permits.	Complete CAP checklist.		
		Consider requiring new development to comply with the Tier 1 requirements of CALGreen, Part 11 of the California Building Standards Code. This optional measure may be necessary to address any shortfall in attaining reduction objectives.			Not economically feasible
Smart Meters	Increase the community's awareness and utilization of real-time energy consumption data available through PG&E's SmartMeter program.	Require newly constructed buildings and recommend that major remodels install indoor real-time energy monitors.	Install indoor real-time energy monitor in each unit or tenant space.	☑ Complies ☐ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	
		Connect businesses and residents with rebate programs that give priority to appliances with smart grid technology.	Provide information to prospective buyers or tenants on available rebates for appliances with smart grid enabled technology		
Cool Roofs and Pavements	Increase tree planting and the use of cool roofs and cool pavement materials to reduce the urban heat island effect and corresponding energy consumption. Implement tree replacement policy for	Actively inspect and enforce state requirements for cool roofs on residential and nonresidential roofing projects. Require new buildings to meet Title 24 and recommend that new buildings meet CALGreen Tier 1 requirements for cool roofs, which require a minimum solar reflectance index (SRI) of 10 for steep slope roofs and 64 for low slope roofs.	Comply with minimum Title 24 requirements for cool roofs to have a minimum SRI of 10 for steep slope and 64 for low slope roofs on residential and nonresidential projects.	☐ Complies ☑ Complies with Intent of Project Requirement ☐ Not Applicable	
		Establish standards for new development and major remodels to reduce exterior heat gain for 50% of non-roof impervious site surfaces (roads, sidewalks, courtyards, parking lots, driveways) through one or more of the following mechanisms:	Reduce exterior heat gain by planting vegetation, installing solar panel shade structures, or utilizing paving materials with a		

**Text highlighted green has been implemented into plan. Text highlighted red has not been implemented into the plan.

COMPLIANCE CHECKLIST FOR NEW DEVELOPMENT

Topic	Policy	City Requirements	Project Requirements	Compliance	Discussion
	projects where tree removal is necessary.	▪ Achieve 50% paved surface shading within five to ten years by planting trees and other vegetation and/or installing solar panels or shading structures above parking.	minimum SRI of 29 for at least 50% of non-roof impervious site surfaces.	☐ Does Not Comply	Not economically feasible to achieve goal
		▪ Use paving materials with an SRI of at least 29 for all surfaces.			
		Maintain and expand Vallejo's urban forest, including street trees and trees on private property.	Install and maintain street trees in compliance with current development standards		
		For public improvements and public projects, require the use of high albedo paving material for sidewalks, roads, crosswalks, parking lots, and driveways.	Utilize high albedo paving material when required to install or renovate sidewalks, roads, crosswalks, parking lots, and driveways		Yes for these items only
Renewable Energy					
Renewable Energy Installations	Support the installation of small-scale renewable energy systems including solar photovoltaic, solar thermal, and wind, river current, and tidal energy conversion systems.	Encourage new homes and businesses to be pre-wired and pre-plumbed for solar and solar thermal installations.	Pre-wire and pre-plumb new residential and commercial buildings for solar and solar thermal installations.	☑ Complies ☐ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	
Transportation & Land Use					
	Promote mixed-use, higher-density development near transit nodes.	Implement elements in the Downtown Specific Plan that encourage pedestrian-oriented plazas, walkways, bike trails, bike lanes, and street furniture and connections to other community areas. Promote pedestrian convenience and recreational opportunities through development conditions requiring sidewalks, walking paths, or hiking trails connecting various land uses and including safety amenities such as lighting and signage.	Include sidewalks, walking paths, or hiking trails connecting various land uses and including safety amenities such as lighting and signage throughout the project site for projects with the Downtown Specific Plan.	☐ Complies ☐ Complies with Intent of Project Requirement	May not be applicable DSP
		Implement elements in the Downtown Specific Plan that promote mixed-use development and provide commercial services such as day care, restaurants, banks, and stores near to employment centers, where feasible.	Incorporate commercial services such as day care, restaurants, banks, and stores near employment centers where feasible in mixed use projects for projects within the Downtown Specific Plan.	☑ Not Applicable ☐ Does Not Comply	
	Expand and link the network of pedestrian and bicycle paths and facilities through preparation of a Bicycle and Pedestrian Master Plan, with the goal of increasing the bicycle and pedestrian mode share 20% by 2035.	Revise zoning standards to require the provision of bicycle support facilities (lockers, shower rooms, etc.) for appropriate development at a rate of 1 changing room and shower per 200 occupants.	Provide bicycle support facilities at a rate of 1 changing room and shower per 200 occupants within non-residential developments.	☑ Complies ☐ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	

COMPLIANCE CHECKLIST FOR NEW DEVELOPMENT

Topic	Policy	City Requirements	Project Requirements	Compliance	Discussion
	Revise parking requirements for new commercial and multi-family residential projects and implement the Downtown Parking Meter Installation Plan.	Revise parking requirements for new commercial and multi-family residential projects to provide bike racks for 5% of the building's projected visitors within 200 feet of the building's entrance for commercial projects and one long-term bicycle storage space per two multi-family units.	Provide bike racks for 5% of the projected building occupants within 200 feet of the building entrance and one long-term bicycle storage space per two-multi-family units.	☐ Complies ☑ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	Parking demand required for specific project retail brand viability and cannot be reduced
		Allow up to a 15% reduction in required private vehicle parking spaces in new commercial and multi-family residential projects if justified in an approved trip reduction plan.	Consider reducing the number of required vehicle parking spaces by up to 15% through the development of an approved trip reduction program.		
		Encourage shared parking programs in mixed-use and transit-oriented development areas.	Consider utilizing shared parking in mixed-use and transit-oriented developments.		
		Design parking lots, where feasible, to include clearly marked and shaded pedestrian pathways between transit facilities and building entrances.	Design parking lots, where feasible, to include clearly marked and shaded pedestrian pathways between transit facilities and building entrances.		
	Reduce emissions from commute travel to and from schools and workplaces.	Encourage a variety of transportation system demand management techniques for new development, including variable work hours and telecommuting.	Implement applicable transportation demand management programs and techniques.	☑ Complies ☐ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	
		Support the establishment and participation in Safe Routes to Schools and similar infrastructure and educational programs that enable safe passage of children and reduce vehicle trips to local schools.	Install infrastructure within and adjacent to the project site to ensure the safe passage of children to and from school.		
		Collaborate with the Solano Transportation Authority (STA) and Solano County to update the rideshare matching system to include the use of social networking and smart phone platforms and encourage greater use of existing park-and-ride lots.	Encourage employers and employees to utilize the Solano transit Authority's rideshare matching system.		
		Collaborate with STA and local employers to support guaranteed ride home programs including preferential parking spaces, employer-assisted ride-matching databases, recognition programs, and other incentives.	Encourage employers and employees to participate in STA's ridesharing and support services.		
	Plan for an improved jobs/housing balance in order to reduce the need for long-distance travel from residences to places of work.	Update the City General Plan and corresponding regulations to support additional jobs and economic revitalization that improves Vallejo's jobs/housing balance.	Provide jobs and economic revitalization that improves Vallejo's jobs/housing balance.	☐ Complies ☑ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	Live/work not suitable or marketable in suburban setting
		Review land-use plans and regulations and revise as needed to support additional live/work opportunities and home occupations, provided they are compatible with the existing neighborhood.	Provide live/work opportunities when compatible within existing neighborhood.		

COMPLIANCE CHECKLIST FOR NEW DEVELOPMENT

Topic	Policy	City Requirements	Project Requirements	Compliance	Discussion
Efficient and Alternative Fuel Vehicles	Support the expanded use of efficient and alternative fuel vehicles.	Revise parking requirements for public and newly constructed commercial developments to include designated stalls for low-emitting, fuel-efficient vehicles and carpool/vanpool vehicles for a minimum of 8% of total parking capacity and to pre-wire stalls for future electric vehicle charging stations for 2% of total parking capacity.	Include designated stalls for low-emitting, fuel-efficient vehicles and carpool/vanpool vehicles for a minimum of 8% of total non-residential parking capacity and pre-wire stalls for future electric vehicle charging stations for 2% of total parking capacity.	☐ Complies ☑ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	Specific project retail brand does not currently include alt. fuel stations
		Encourage new gas stations and automotive uses to include biodiesel facilities and/or offer biodiesel retrofits to diesel vehicles.	Consider including alternative fuel stations within the project.		
Water Conservation					
Development Standards for Water Conservation	Require water conservation in all new buildings and landscapes.	Per the minimum requirements of the 2010 CALGreen Code, ensure that all new non-residential buildings larger than 50,000 square feet install individual water meters for each tenant space projected to consume more than 100 gallons per day.	Install individual water meters for each tenant space projected to consume more than 100 gallons per day in all non-residential buildings larger than 50,000 square feet.	☐ Complies ☑ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	City does not have recycled water system, not economically feasible to create project-specific rec. water system Not economically feasible from an installation and maiintenance perspective
		Per the minimum requirements of the 2010 CALGreen Code, ensure that all new non-residential facilities with 1,000 to 5,000 square feet of irrigated landscaped space provide an additional water meter or sub-meter for landscaping uses.	Provide an additional water meter or sub-meter for landscaping uses for all new non-residential facilities with 1,000 to 5,000 square feet of irrigated landscaped space.		
		Revise development standards to support the use of greywater, recycled water, and rainwater catchment systems in all zones.	Consider installing greywater, recycled water, and rainwater catchment systems if feasible.		
		Per the voluntary requirements of the 2010 CALGreen Code, encourage newly constructed development to treat at least 40% of the average annual rainfall on-site through low impact development strategies.	Implement low impact development strategies in new non-residential projects to treat a minimum of 40% of the average annual rainfall on-site.		
		Per the minimum requirements of the 2010 CALGreen Code, require a minimum of 20% of the total parking, walkway, and porch area surfaces serving single-family and multi-family residential buildings under 4 units to be permeable to facilitate on-site retention of water and reduce water run-off.	Facilitate on-site retention of water and reduce water run-off by installing permeable surfaces for a minimum of 20% of the total parking, walkway, and porch area surfaces serving single-family and multi-family residential buildings under 4 units.		
Development Standards for Recycling and Composting	Require waste diversion and the use of recycled materials in new development.	Continue to update the City's Construction/Demolition Waste Reuse and Recycling Ordinance as higher diversion rates become feasible, necessary, or required.	Comply with the City's Construction/Demolition Waste Reuse and Recycling Ordinance.	☑ Complies ☐ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	
		Support the development of additional markets for recycled content products by requiring new developments to include recycled content materials at a minimum of 10% of total materials.	Incorporate recycled content materials for a minimum of 10% of total materials.		

COMPLIANCE CHECKLIST FOR NEW DEVELOPMENT

Topic	Policy	City Requirements	Project Requirements	Compliance	Discussion
Equipment					
Lawn & Garden Equipment	Encourage the use of electrified and higher-efficiency lawn and garden equipment.	Require new buildings to provide electrical outlets on the exterior in an accessible location to charge electric-powered lawn and garden equipment.	Install outdoor electrical outlets on the exterior of each building in an accessible location.	☑ Complies ☐ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	
		Encourage the replacement of high-maintenance landscapes (like grass turf) with native vegetation to reduce the need for gas-powered lawn and garden equipment.	Consider installing low-maintenance, native landscaping to minimize the need for gas-powered lawn and garden equipment.		
Construction Equipment	Reduce emissions from heavy-duty construction equipment by limiting idling and utilizing cleaner fuels, equipment, and vehicles.	Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), or less. Clear signage will be provided at all access points to remind construction workers of idling restrictions.	Shut construction equipment off when not in use or reduce the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), or less.	☑ Complies ☐ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	
		Construction equipment must be maintained per manufacturer's specifications.	Maintain construction equipment per manufacturer's specifications.		
		Planning and Building staff will work with project applicants to limit GHG emissions from construction equipment by selecting one of the following measures, at a minimum, as appropriate to the construction project:	Implement one of the following best practices to minimize construction related GHG emissions:		
		a. Substitute electrified equipment for diesel- and gasoline-powered equipment where practical.	Substitute electrified equipment for diesel- and gasoline-powered equipment where practical.		
		b. Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.	Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.		
		c. Avoid the use on on-site generators by connecting to grid electricity or utilizing solar-powered equipment.	Avoid the use on on-site generators by connecting to grid electricity or utilizing solar-powered equipment.		
		d. Limit heavy-duty equipment idling time to a period of 3 minutes or less, exceeding CARB regulation minimum requirements of 5 minutes.	Limit heavy-duty equipment idling time to a period of 3 minutes or less, exceeding CARB regulation minimum requirements of 5 minutes.		
Adaptation					
Adaptation Mainstreaming	Integrate potential climate change impacts into local planning documents and processes.	In development review, analyze and disclose possible impacts of climate change on the project or plan area, with an emphasis on sea level rise.	Review, analyze and disclose possible impacts of climate change on the project or plan area, with an emphasis on sea level rise.	☑ Complies ☐ Complies with Intent of Project Requirement ☐ Not Applicable ☐ Does Not Comply	

Appendix D

Biological Resources Assessment; and

Delineation of Water of the U.S. Report

Biological Resources Assessment

FAIRVIEW AT NORTHGATE
VALLEJO, SOLANO COUNTY, CALIFORNIA

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Date:
September 2017
Updated January 2019

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TABLE OF CONTENTS

EXECUTIVE SUMMARY iii

1.0 INTRODUCTION 1

2.0 REGULATORY BACKGROUND 1
- 2.1 Special-Status Species 1
- 2.2 Critical Habitat 4
- 2.3 Sensitive Biological Communities 4

3.0 METHODS 6
- 3.1 Biological Communities 6
  - 3.1.1 Non-Sensitive Biological Communities 7
  - 3.1.2 Sensitive Biological Communities 7
- 3.2 Special-Status Species 8
  - 3.2.1 Literature Review 8
  - 3.2.2 Site Assessment 8

4.0 RESULTS 9
- 4.1 Biological Communities 10
  - 4.1.1 Non-Sensitive Biological Communities 13
  - 4.1.2 Sensitive Biological Communities 13
- 4.2 Special-Status Species 14
  - 4.2.1 Special-Status Plants 14
  - 4.2.2 Special-Status Wildlife 17

5.0 SUMMARY AND RECOMMENDATIONS 23
- 5.1 Biological Communities 23
- 5.2 Special-Status Plant Species 23
- 5.3 Special-Status Wildlife Species 26

6.0 REFERENCES 27

LIST OF TABLES

Table 1. Description of CNPS ranks and threat codes 4
Table 2. Summary of biological communities in the Study Area 10

LIST OF FIGURES

Figure 1. Study Area Location Map 2
Figure 2. Biological Communities within the Study Area 11
Figure 3. Special-Status Plant Species in the CNDDB within 5 Miles of the Study Area 15
Figure 4. Special-Status Wildlife Species in the CNDDB within 5 Miles of the Study Area 18
Figure 5. Project Impacts to Biological Communities 24

LIST OF APPENDICES

Appendix A – List of Observed Plant and Wildlife Species
Appendix B – Potential for Special-Status Species to Occur in the Study Area
Appendix C – Site Photographs

LIST OF ACRONYMS AND ABBREVIATIONS

CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CRLF	California red-legged frog
CWA	Clean Water Act
EFH	Essential Fish Habitat
ESA	Federal Endangered Species Act
FAC	Facultative plant species
FACW	Facultative wetland plant species
Inventory	CNPS Inventory of Rare and Endangered Plants
NMFS	National Marine Fisheries Service
OBL	Obligate wetland plant species
OWHM	Ordinary High Water Mark
Rank	California Rare Plant Rank
RWQCB	Regional Water Quality Control Board
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRA	WRA, Inc.

EXECUTIVE SUMMARY

The purpose of this report is to provide an analysis of natural community and special-status species at the Fairview at Northgate project site located in Vallejo, Solano County, California (Study Area). This report is an update to the original biological resource assessment report, prepared in September of 2017. Updates include: (1) modification of the Study Area boundary to include a narrow strip of land east of Admiral Callaghan Lane and removal of the parcel on the west side of Interstate 80;[1] (2) discussion of anthropogenic depressions; and (3) clarification regarding the status of California red-legged frog surveys.

On March 18 and May 3, 2017, WRA, Inc. conducted an assessment of biological resources within the Study Area. The Study Area consists of approximately 52.62 acres of undeveloped land located within a commercially and residentially developed area of the City of Vallejo. While the site has not been developed, unauthorized activities have occurred there, including off-road vehicle usage and temporary camping. Sensitive biological communities observed in the Study Area included approximately 5.02 acres of seasonal wetland swale, 0.08 acre of anthropogenic depressions, and 0.02 acre of perennial stream below the ordinary high water mark (OHWM) (0.05 acre below top-of-bank). If these areas are impacted by the project, permits from the Corps of Engineers, Regional Water Quality Control Board, and, for the perennial stream, from the California Department of Fish and Wildlife in addition to the other two agencies.

Based on a review of relevant resources and the types and condition of biological communities observed at the site, it was determined that one special-status plant species had a moderate potential to occur in the Study Area: coast iris (*Iris longipetala*); however, this species was not observed during surveys and is assumed to be absent from the Study Area. No other special status plants species are expected to occur on the site.

Protocol-level surveys for the federal threatened California red-legged frog (CRLF; *Rana draytonii*) have been completed as of July 12, 2017, and no lifestage of CRLF or CRLF habitat was determined to be present.

Eight special-status wildlife species were determined to have a moderate to high potential to occur within the Study Area. These species are all bird species that may nest on the site and include: white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), Nuttall's woodpecker (*Picoides nuttallii*), oak titmouse (*Baeolophus inornatus*), loggerhead shrike (*Lanius ludovicianus*), Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), Samuel's song sparrow (*Melospiza melodia samuelis*), and San Francisco common yellowthroat (*Geothlypis trichas sinuosa*). One special-status wildlife species was observed in the Study Area: Allen's hummingbird (*Selasphorus sasin*). Avoidance measures such as conducting work during non-breeding seasons or conducting preconstruction surveys to avoid harming occupied nests will mitigate for project impacts. None of these species are listed as endangered or threatened under the federal Endangered Species Act or the California Endangered Species Act.

[1] The report appendices contain some data that pertains to the parcel west of Interstate 80, such as plant species observed in this area.

1.0 INTRODUCTION

On March 18 and May 3, 2017, WRA, Inc. (WRA) performed an assessment of biological resources at the Fairview at Northgate project (Project) located in Vallejo, Solano County, California (Study Area, Figure 1). This report describes the results of the site visit, which assessed the Study Area for the (1) potential to support special-status plant or wildlife species and (2) presence of other sensitive biological resources protected by local, state, or federal laws and regulations. The regulatory framework of this biological resources assessment is provided in Section 2.0 of this report. The methods used in the assessment are described in Section 3.0, and the results of the site visit are presented in Section 4.0. A summary of the sensitive biological resources observed or with potential to occur at the site is provided in Section 5.0. Section 5.0 also includes a summary of permits that may be necessary for a proposed project as well as recommended avoidance and minimization measures to avoid impacts to sensitive biological resources on the site.

A biological resources assessment provides general information on the potential presence of sensitive species and habitats. A special-status plant survey was also conducted simultaneously with the biological resources assessment, and the results of the survey are incorporated into this report. Protocol-level surveys for the federal threatened California red-legged frog (CRLF; *Rana draytonii*) have been completed as of July 12, 2017, and no lifestage of CRLF or CRLF habitat was determined to be present. The results of these surveys will be presented in a separate report.

For special-status wildlife species other than CRLF, the biological resources assessment presents information on any species that were seen on the site or may have the potential to occur based on proximity to the site of other occurrences or the presence of suitable habitat. Recommendations on any additional surveys necessary based on the findings for this site are provided in Section 5.0. This assessment is based on information available at the time of the study and on site conditions that were observed on the date of the site visit.

2.0 REGULATORY BACKGROUND

The following section describes the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential Project impacts.

2.1 Special-Status Species

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or the California Endangered Species Act. These acts afford protection to both listed and proposed species. In addition, the California Department of Fish and Wildlife (CDFW; formerly the California Department of Fish and Game) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Plant species listed in the California Native Plant Society (CNPS) Rare

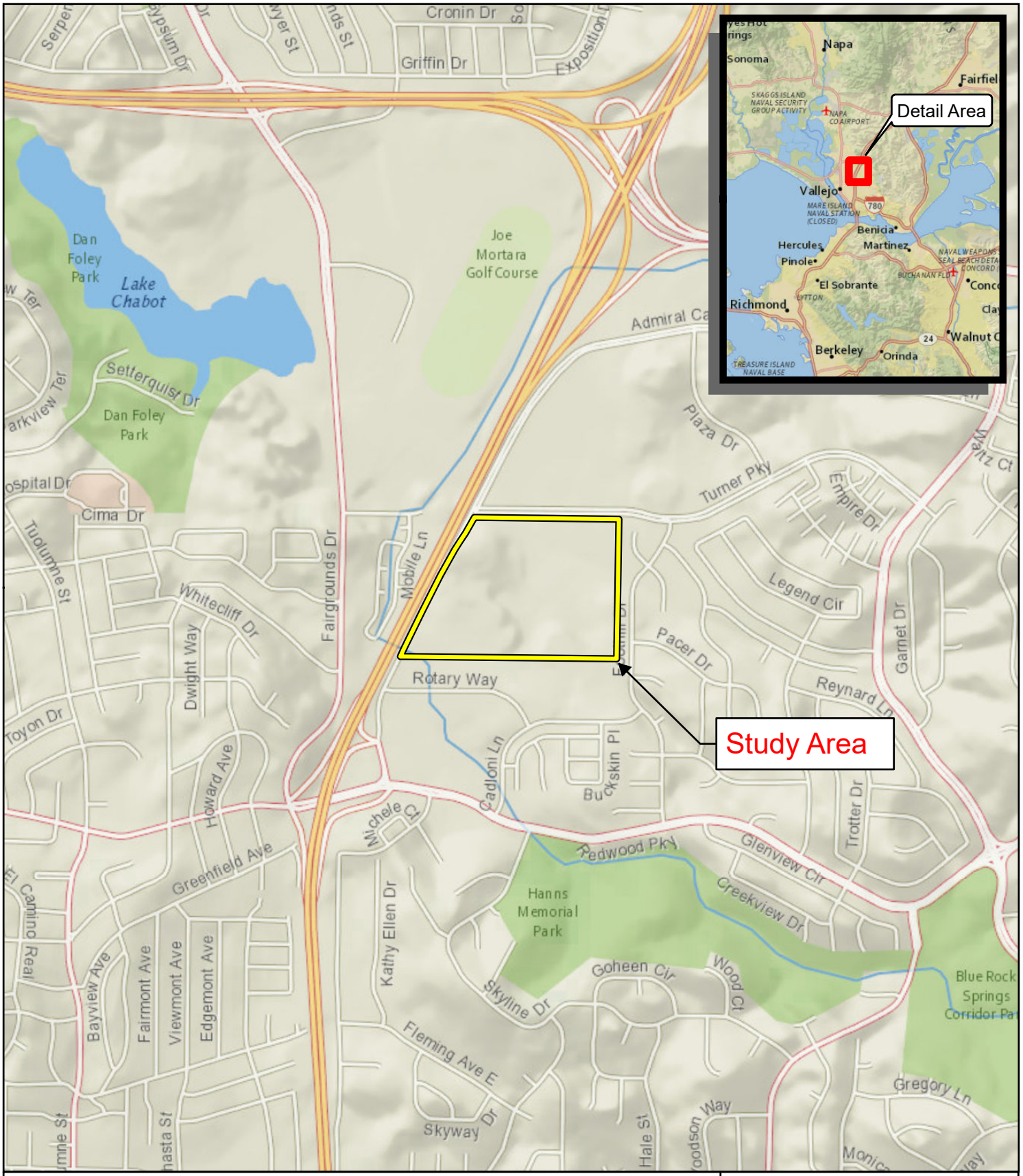

Figure 1. Regional Location Map

Fairview at Northgate
Solano County, California

0 0.2 0.4
Miles

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Map Prepared Date: 1/16/2018
Map Prepared By: czumwalt
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24323-9\GIS\ArcMap\Independent Permit\Fig 1 Location.mxd

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and Endangered Plant Inventory (Inventory; CNPS 2017a) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under the CEQA. Rank 4 species are afforded reduced to no protection under the CEQA but are included in this analysis for completeness. A description of the CNPS Ranks and associated threat codes is provided below in Table 1.

Table 1. Description of CNPS ranks and threat codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

2.2 Critical Habitat

Critical habitat is a term defined in the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects that they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the ESA "jeopardy standard". However, areas that are currently unoccupied by the species but which are needed for the species' recovery are protected by the prohibition against adverse modification of critical habitat.

2.3 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations such as the Clean Water Act (CWA); state regulations such as the Porter-Cologne Act, the California Fish and Game Code, and the CEQA; or local ordinances and policies such as city or county Tree Ordinances, Special Habitat Management Areas, General Plans, and Habitat Conservation Plans.

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the CWA. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Supplement* (Arid West Supplement; Corps 2008), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream", which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). The term "riparian" is defined as "on, or pertaining to, the banks of a stream." Riparian vegetation is defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFW.

Essential Fish Habitat

Essential Fish Habitat (EFH) is regulated through the National Marine Fisheries Service (NMFS), a division of the National Oceanic and Atmospheric Administration. Protection of EFH is mandated through changes implemented in 1996 to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to protect the loss of habitat necessary to maintain sustainable fisheries in the United States. The Magnuson-Stevens Act defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" [16 USC 1802(10)]. The NMFS further defines essential fish habitat as areas that "contain habitat essential to the long-term survival and health of our nation's fisheries" (NMFS 2007). EFH can include the water column, certain bottom types such as sandy or rocky bottoms, vegetation such as eelgrass or kelp, or structurally complex coral or oyster reefs. Under regulatory guidelines issued by the NMFS, any federal agency that authorizes, funds, or undertakes action that may affect EFH is required to consult with the NMFS (50 CFR 600.920).

Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. The CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2017). Sensitive plant communities are also identified by the CDFW (CDFG 2010) and CNPS (CNPS 2017b). Vegetation alliances in the CNDDB are ranked 1 through 5 based on NatureServe's (2017) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or the USFWS must be considered and evaluated under the CEQA. Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

3.0 METHODS

On March 18 and May 3, 2017, the Study Area was traversed on foot to determine (1) the biological communities present within the Study Area, (2) whether existing conditions at the site provide potentially suitable habitat for any special-status plant or wildlife species, and (3) whether sensitive biological communities are present. All plant and wildlife species encountered were recorded, and are summarized in Appendix A. Plant nomenclature follows the Jepson Flora Project (2017), except where noted. For cases in which regulatory agencies, CNPS, or other entities base rarity on older taxonomic treatments, precedence was given to the treatment used by those entities.

3.1 Biological Communities

Prior to the site visit, Soil Survey data for Solano County (CSRL 2017) were examined to determine whether any unique soil types capable of supporting sensitive plant communities or aquatic features have been mapped in the Study Area. Additional sources, such as the U.S. Geological Survey (USGS) 7.5-minute map for the Cordelia quadrangle (USGS 2015) and available aerial imagery were also reviewed to determine the potential for sensitive biological communities to occur in the Study Area. Biological communities were primarily classified based on existing descriptions found in *A Manual of California Vegetation, Online Edition* (CNPS 2017b).

However, in some cases it was necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by the CEQA and other applicable laws and regulations.

3.1.1 Non-Sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under the CEQA, or other state, federal, or local laws, regulations, or ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species. Non-sensitive biological communities observed in the Study Area are described in Section 4.1.1, below.

3.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are afforded special protection under the CEQA or other applicable federal, state, or local laws, regulations or ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below. Descriptions of sensitive biological communities observed in the Study Area are provided in Section 4.1.2

Wetlands and Non-Wetland Waters

A jurisdictional wetland delineation following the methods outlined in the Corps Manual (Environmental Laboratory 1987) and the Arid West Supplement (Corps 2008) was conducted by qualified WRA biologists concurrent with this biological resources assessment. The Study Area was surveyed to determine whether any wetlands or non-wetland waters potentially subject to jurisdiction by the Corps, the RWQCB, or the CDFW were present. The delineation was based on the presence of hydrophytic vegetation and indicators or hydric soils or wetland hydrology. The determination of hydrophytic vegetation is based on the dominance of plant species with a wetland indicator status[1] of OBL, FACW, or FAC as given on the National Wetlands Plant List (Lichvar et al. 2016). Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, algal matting, and oxidized root channels, or indirect evidence (secondary indicators), such as a water table within two feet of the soil surface during the dry season. Indicators of hydric soils include dark colored soils, soils with a sulfidic odor, and soils that contain redoximorphic features as defined by the *Field Indicators of Hydric Soils in the United States* (USDA 2010).

Other Sensitive Biological Communities

The Study Area was evaluated for the presence of other sensitive biological communities, including sensitive plant communities recognized by CDFW. Prior to the site visit, aerial imagery (Google Earth 2017, NETR 2017), Soil Survey data (CSRL 2017), and *A Manual of California Vegetation, Online Edition* (CNPS 2017b) were reviewed to assess the potential for sensitive biological communities to occur in the Study Area. All vegetation alliances within the Study Area

[1] OBL = Obligate, always found in wetlands (> 99% frequency of occurrence); FACW = Facultative wetland, usually found in wetlands (67-99% frequency of occurrence); FAC = Facultative, equal occurrence in wetland or non-wetlands (34-66% frequency of occurrence).

with a ranking of 1 through 3 were considered sensitive biological communities. Sensitive biological communities identified in the Study Area are described in Section 4.1.2, below.

3.2 Special-Status Species

3.2.1 Literature Review

The potential for special-status plant and wildlife species to occur in the Study Area was evaluated by first determining which special-status species have been documented from within the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the USGS 7.5-minute maps for the Cordelia quadrangle and eight surrounding quadrangles (USGS a-i). The following sources were reviewed to determine which special-status plant and wildlife species have been documented from the referenced quadrangles:

- CNDDB records (CDFW 2017)
- USFWS Information for Planning and Conservation Species (USFWS 2017)
- CDFW California Wildlife Habitat Relationships database species accounts and range maps (CDFW 2014)
- California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- California Bird Species of Special Concern (Shuford and Gardali 2008)
- CNPS Inventory records (CNPS 2017a)
- Draft update of the Terrestrial Mammal Species of Special Concern in California (Bolster 1998)
- eBird Online Bird Occurrence Database (eBird 2017)
- Western Bat Working Group species accounts (WBWG 2017).
- Breeding Bird Atlas of Solano County (Rippey 2014).
- Xerces Society for Invertebrate Conservation Species Accounts (Xerces 2017)

3.2.2 Site Assessment

Following the database and literature review, a site visit was made to the Study Area to identify the biological communities present and to assess their condition. Habitat conditions observed in the Study Area were used to evaluate the potential for special-status plant or wildlife species to occur there. This assessment based on conditions observed at the site, the results of the database and literature review, and the professional expertise of the investigating qualified biologists. The potential for each special-status species to occur in the Study Area was ranked based on the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

- Present. Species was observed during the site visit or has been recently recorded from the site.

The site assessment is intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity of the Study Area. In general, the site visit does not constitute a protocol-level survey for special-status species and is not intended to determine the actual presence or absence of a species; however, if a special-status species was observed during the site visit, its presence was recorded and is discussed in Section 4.2, below. That said, a special-status plant survey was conducted simultaneously with biological resources assessment, and the results of the survey are incorporated into this report and discussed in Section 4.2, below. Protocol-level surveys for the federal threatened California red-legged frog have been completed as of July 12, 2017, and no lifestage of CRLF or CRLF habitat was determined to be present.

In cases where little information is known about occurrences or habitat requirements of special-status species known to occur in the vicinity, the species evaluation was based on the best professional judgment of qualified WRA biologists with experience working with the species or habitats in question. For some species, a site assessment at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications required by regulatory agencies. In these cases, a species may be assumed to be present or further protocol-level special-status species surveys may be necessary. Special-status species for which further protocol-level surveys may be necessary are described below in Section 5.0.

4.0 RESULTS

The following sections present the results of the biological resources assessment within the Study Area. Plant and wildlife species observed in the Study Area during the site visit are listed in Appendix A. A table summarizing the potential for special-status plant and wildlife species to occur in the Study Area is included as Appendix B. Representative photographs of the Study Area are provided in Appendix C.

The Study Area comprises 52.62 acres of disturbed undeveloped land located within a commercially and residentially developed portion of the City of Vallejo, approximately 2.50 miles northeast of downtown Vallejo. The Study Area is located east of Interstate 80 and Admiral Callaghan Lane and southeast of the intersection of Admiral Callaghan Lane and Turner Parkway (Study Area). The Study Area has been essentially undeveloped since at least 1948 to the present day (Google Earth 2017, NETR 2017). However, the area has been used extensively and without authorization by off-road vehicles which resulted in an extensive network of vehicle paths and tire ruts throughout the Study Area. Although the site is now fenced along the northern edge on Turner Parkway, unauthorized access can still occur on the western edge of the property,

and the site is illegally used by people for temporary campsites. In addition, ground disturbance, caused by excavation and other earth-moving activities occurred in the northern portion of the Study Area. As a result of this construction activity, several small depressions were created in the property.

The majority of the Study Area is characterized by non-native annual grassland. Plant species observed in the Study Area are predominantly non-native annual grasses and herbaceous species typical of disturbed sites. A seasonal wetland swale complex is present at the base of the hills within the Study Area. The Study Area also contains a small reach of Blue Rock Springs Creek, a perennial stream, which runs east to west in southwestern corner of the Study Area.

4.1 Biological Communities

Non-sensitive biological communities observed in the Study Area included non-native annual grassland and coyote brush scrub. Additionally, three sensitive biological communities were observed in the Study Area: perennial stream, seasonal wetland swale, and anthropogenic depressions. Descriptions for each biological community are contained in the following sections. Biological communities within the Study Area are summarized in Table 2 and shown in Figure 2.

Table 2. Summary of biological communities in the Study Area

Community Type	**Area (acres)**
Non-sensitive biological communities	
Non-Native Annual Grassland	45.67
Coyote Brush Scrub	1.83
Sensitive biological communities	
Perennial Stream	0.02 (0.05 below top-of-bank)
Seasonal Wetland Swale	5.02
Anthropogenic Depression	0.08
Total Study Area Size	52.62

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Fairview at Northgate

Solano County, California

Figure 2.

Biological Communities within the Study Area

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Feet

Map Prepared Date: 5/15/2018
Map Prepared By: czumwalt
Base Source: USGS EROS Ortho 1ft.
Data Source(s): WRA

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4.1.1 Non-Sensitive Biological Communities

Non-Native Annual Grassland. No Rank. Although not described in the literature, non-native annual grassland occupies the majority of the Study Area. This community was located within drier areas on all aspects and slopes. The dominant species observed within this community were Italian rye grass (*Festuca perennis*; FAC*)*, ripgut brome (*Bromus diandrus*; NL), soft chess (*Bromus hordeaceus*; FACU), seaside barely (*Hordeum marinum*; FAC), foxtail barely (*Hordeum murinum*; FACU), and slender oat grass (*Avena barbata*; NL). Indian teasel (*Dipsacus sativus*; NL*),* sweet fennel (*Foeniculum vulgare*; NL), curly dock (*Rumex crispus*; FAC), spring vetch (*Vicia sativa*; FACU), and bristly ox tongue (*Helminthotheca echioides*; FAC) were observed mixed within the stands of annual grasses. Very few native species were observed within the non-native annual grasslands, and they occurred at extremely low cover. Native species observed included narrow leaf mule ears (*Wyethia angustifolia*; FACU) and white brodiaea (*Triteleia hyacinthina*; FAC).

Coyote brush scrub (*Baccharis pilularis* Shrubland Alliance). Rank: G5 S5. Coyote brush scrub is known from the outer Coast Ranges and Sierra Nevada Foothills from Del Norte County south to San Diego County. This vegetation alliance is typically located on river mouths, riparian areas, terraces, stabilized dunes, coastal bluffs, open hillsides, and ridgelines on all aspects underlain by variable substrate of sand to clay. These scrubs are located primarily on mid- to high-slopes on north-facing aspects, predominantly underlain by rocky loam substrate (CNPS 2017b)

Within the Study Area, the dominant species in the shrub layer is coyote brush, with isolated individuals of toyon (*Heteromeles arbutifolia*) and cherry plum (*Prunus cerasifera*). Herbaceous cover is dominated by non-native herbs including soft chess, Italian rye grass, ripgut brome, foxtail barely, and slender oat grass. In lesser abundance, sweet fennel, purple vetch (*Vicia benghalensis*), short podded mustard (*Hirschfeldia incana*), Mediterranean lineseed (*Bellardia trixago*), purple salsify (*Tragopogon porrifolius*) were present.

4.1.2 Sensitive Biological Communities

Perennial Stream. Perennial stream within the Study Area is comprised of a small (approximately 85 linear feet) portion of Blue Rock Springs Creek, which is located in the southwestern corner of the Study Area. Perennial streams are considered sensitive under the CEQA and are regulated by the Corps, RWQCB, and CDFW. The primary source of water for the perennial stream is stormwater and other runoff from the surrounding developed lands. The stream enters the Study Area from the south via a culvert that runs under an automobile dealership. It exits the Study Area to the west via a culvert under Admiral Callaghan Lane. Sparse vegetation is present along the fringes of the creek below OHWM, but the feature is generally unvegetated. Indicators of OHWM are present, including a clear bed and bank. The perennial stream in the Study Area is assumed to drain into receiving waters that are jurisdictional waters of the U.S. and therefore is expected to be considered jurisdictional under Section 404 of the CWA. Areas below the top of bank are expected to be considered jurisdictional by CDFW.

Seasonal Wetland Swale. A seasonal wetland swale is present in the low, flat areas at the base of the hills within the Study Area. The wetland consists of a number of connected swales that flow into the eastern portion of the property from the surrounding urbanized areas and then flow off the property through a culvert to the north. The wetlands are characterized by hydrophytic vegetation, but they have been extensively disturbed by a still-visible network of off-road vehicle

pathways and tire ruts resulting from unauthorized off-road vehicle activity. The wettest portions of the swales are generally at their upper ends, near the southern and eastern Study Area boundary, where they enter from the surrounding residential developments and are dominated by obligate and facultative perennial wetland species, including cattails, bulrushes (*Bolboschoenus* sp.), and iris-leaved rush (*Juncus xiphioides*). Drier portions of the wetland swale are dominated by annual facultative and facultative wetland species, including salt grass (*Distichlis spicata*), Italian ryegrass, curly dock, rabbit's foot grass, bristly ox-tongue, and creeping wildrye (*Elymus triticoides*). Occasional red willows (*Salix laevigata*) are present, particularly along the southern boundary of the Study Area, but the wetlands are generally treeless.

Within the Study Area, seasonal wetland swales were mapped primarily based on vegetation signatures observed on foot during the field visit in May 2017. Seasonal wetland swales in the Study Area met the three wetland criteria and are assumed to drain into receiving waters that are jurisdictional waters of the U.S. and therefore are expected to be considered jurisdictional under Section 404 of the CWA.

Anthropogenic Depression

Within non-native annual grassland, several anthropogenic depressions and tire ruts caused by unauthorized off-road vehicle and excavation activity were observed in the north-central and west portions of the Study Area. The depressions are seasonally inundated and are typically characterized by annual species such as seaside barley, Italian ryegrass, rabbit's foot grass (*Polypogon monspeliensis*), and waxy mannagrass (*Glyceria declinata*), though some depressions support perennial species such as iris-leaved rush and cattails (*Typha* sp.). Although the excavations and tire ruts are manmade within otherwise upland areas, anthropogenic depressions in the Study Area met the three wetland criteria and are assumed to drain into receiving waters that are jurisdictional waters of the U.S. They are therefore are expected to be considered jurisdictional under Section 404 of the CWA.

4.2 Special-Status Species

4.2.1 Special-Status Plants

Based upon a review of the resources and databases listed in Section 3.2.1, it was determined that 67 special-status plant species have been documented within the vicinity of the Study Area. Special-status plant species that have been documented in the CNDDB within a 5-mile radius of the Study Area are depicted in Figure 3. Appendix B summarizes the potential for each of these species to occur in the Study Area. One special-status plant species was determined to have a moderate potential to occur within the Study Area.

Of the 67 special-status plant species listed in Appendix B, it was determined that 37 have no potential to occur at the site, 29 are unlikely to occur, and one has moderate potential to occur.

Figure 3. CNDDB Occurrence Records of Special-Status Plant Species within 5 Miles of the Study Area

N W E S

0 0.5 1 2
Miles

Fairview at Northgate
Solano County, California

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Map Prepared Date: 1/3/2019
Map Prepared By: czumwalt
Base Source: National Geographic
Data Source(s): CNDDB May 2017

Path: L:\Acad 2000 Files\24000\24323-9\GIS\ArcMap\BRA\Fig CNDDB Plant.mxd

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The 37 species that have no potential to occur require habitat elements that are absent from the site such as tidal marshes, chaparral, vernal pools, chenopod scrub, and serpentine substrate.

For the 29 species determined to be unlikely to occur at the site, some elements of suitable habitat may be present (e.g., grassland, seasonal wetland, coastal scrub); however, because of the high disturbance levels surrounding the site and the generally degraded condition of habitat, these species are unlikely to occur within the Study Area.

Species with Potential to Occur in the Study Area

One special-status species was determined to have a moderate potential to occur in the Study Area based on distribution and on-site habitat: coast iris (*Iris longipetala*). The potential for this species to occur in the Study Area and the results of the protocol-level plant survey for this species are discussed below.

Coast iris (*Iris longipetala*). Rank 4.2. Moderate Potential. Not Observed. Coast iris is a perennial rhizomatous herb in the iris family (Iridaceae). It typically occurs in mesic coastal prairie, lower montane coniferous forest, and meadows and seeps habitats at elevations ranging from 0 to 1,970 feet (0 to 600 meters). Typically observed associated species include coast redwood (*Sequoia sempervirens*), California bay (*Umbellularia californica*), rattlesnake grass (*Briza maxima*), slender wild oat, soft chess, and purple needlegrass (*Stipa pulchra*; CCH 2017).

The nearest documented occurrence of this species is approximately 6.5 miles northeast of the Study Area on a grassy slope in a somewhat disturbed area (CCH 2017). Coast iris has a moderate potential to occur in the non-native annual grassland and coyote brush scrub communities within the Study Area due to the relatively close proximity of the nearest occurrence and suitable grassland and open scrub habitats.

During the May site visit, meandering transects were walked throughout all grassland and coyote brush scrub habitat within the Study Area, and coast iris was not observed. The only iris species observed within the Study Area was a non-native ornamental iris species located at the edge off mixed woodland habitat. The site visit occurred during the published blooming period of coast iris, and this species was observed at a reference site prior to the site visit. As such, coast iris is assumed to be absent from the Study Area.

4.2.2 Special-Status Wildlife

Based upon a review of the resources and databases listed in Section 3.2.1, it was determined that 64 special-status wildlife species have been documented within the vicinity of the Study Area. Special-status wildlife species documented in the CNDDB from within 5 miles of the Study Area are shown in Figure 4. Appendix B summarizes the potential for each of these species to occur in the Study Area. Eight special-status wildlife species were determined to have a moderate to high potential to occur within the Study Area, and one special-status species has been observed within the Study Area during WRA site visits.

Of the 64 special-status wildlife species listed in Appendix A, it was determined that 36 have no potential to occur at the site, 19 are unlikely to occur, and eight have moderate potential to occur. One special-status species was observed within the Study Area during WRA site visits. The 34 species that have no potential to occur require habitat elements that are absent from the site such as tidal marshes, chaparral, streams connected to Bay waters that would allow for fish passage, dense riparian vegetation, large areas of open grasslands, woodlands, forests, sandy

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Figure 4. CNDDB Occurrence Records of Special-Status Wildlife Species within 5 Miles of the Study Area

Fairview at Northgate
Solano County, California

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Map Prepared Date: 1/3/2019
Map Prepared By: czumwalt
Base Source: National Geographic
Data Source(s): CNDDB May 2017

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beaches, salt ponds, vernal pools, or alkali flats. For the 21 species determined to be unlikely to occur at the site, some elements of suitable habitat may be present (e.g., freshwater marsh); however, the high disturbance levels surrounding the site, the generally degraded condition of habitat, and lack of connectivity preclude their presence and/or inhabitation of the site..

Species with Potential to Occur in the Study Area or Documented as Present

Eight special-status bird species were determined to have a moderate or high potential to occur and nest within or immediately adjacent to the Study Area: white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), Nuttall's woodpecker (*Picoides nuttallii*), oak titmouse (*Baeolophus inornatus*), loggerhead shrike (*Lanius ludovicianus*), Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), Samuel's song sparrow (*Melospiza melodia samuelis*), and San Francisco common yellowthroat (*Geothlypis trichas sinuosa*). One special-status bird species, Allen's hummingbird (*Selasphorus sasin*), was observed within the Study Area during WRA site visits, and also may nest on the site. These species and their potential to occur in the Study Area are discussed in greater detail below.

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. Moderate Potential. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The Study Area contains open grassland habitats suitable for foraging for this species. Large bushes and trees within the Study Area may also support nesting, although the Study Area is surrounded by development and thus the potential for nesting may be reduced. This species has not yet been observed within the Study Area.

Northern harrier (*Circus cyaneus*). CDFW Species of Special Concern. Moderate Potential. The northern harrier occurs as a resident and winter visitor in open habitats throughout most of California, including freshwater and brackish marshes, grasslands and fields, agricultural areas, and deserts. Harriers typically nest in treeless areas within patches of dense, relatively tall, vegetation, the composition of which is highly variable; nests are placed on the ground and often located near water or within wetlands (Shuford and Gardali 2008). Harriers are birds of prey and subsist on a variety of small mammals and other vertebrates. The Study Area contains open grasslands mixed with seasonal wetlands, which provide foraging habitat for this species. Additionally, this species may nest in dense upland vegetation on the site, although regular mowing may reduce this potential. This species has not yet been observed within the Study Area.

Nuttall's woodpecker (*Picoides nuttallii*). USFWS Bird of Conservation Concern. Moderate Potential. Nuttall's Woodpecker, common in much of its range, is a year-round resident throughout most of California west of the Sierra Nevada. Typical habitat is oak or mixed woodland, and riparian areas (Lowther 2000). Nesting occurs in tree cavities, principally those of oaks and larger riparian trees. Nuttall's woodpecker also occurs in older residential settings and orchards where trees provide suitable foraging and nesting habitat. This species forages on a variety of arboreal invertebrates. This species is relatively common, even in developed areas, and the southern section of the Study Area contains oaks and other trees that may contain cavities suitable for nesting. This species has not yet been observed within the Study Area.

Oak titmouse (*Baeolophus inornatus*), USFWS Bird of Conservation Concern. Moderate Potential. This relatively common species is year-round resident throughout much of California including most of the coastal slope, the Central Valley and the western Sierra Nevada foothills. In addition, the species may also occur in residential settings where landscaping provides foraging and nesting habitat. Its primary habitat is woodland dominated by oaks. Local populations have adapted to woodlands of pines and/or junipers in some areas (Cicero 2000). The oak titmouse nests in tree cavities, usually natural cavities or those excavated by woodpeckers, though they may partially excavate their own (Cicero 2000). Seeds and arboreal invertebrates make up the birds' diet. This species is relatively common, even in developed areas, and the southern section of the Study Area contains oaks and other trees that may contain cavities suitable for nesting. This species has not yet been observed within the Study Area.

Loggerhead shrike (*Lanius ludovicianus*), CDFW Species of Special Concern, USFWS Bird of Conservation Concern. Moderate Potential. The loggerhead shrike is a year-round resident and winter visitor in lowlands and foothills throughout California. This species is associated with open country with short vegetation and scattered trees, shrubs, fences, utility lines and/or other perches. Although they are songbirds, shrikes are predatory and forage on a variety of invertebrates and small vertebrates. Captured prey items are often impaled for storage purposes on suitable substrates, including thorns or spikes on vegetation, and barbed wire fences. Nests in trees and large shrubs; nests are usually placed three to ten feet off the ground (Shuford and Gardali 2008). The Study Area contains suitable foraging habitat for the species, and patches of dense trees and shrubs may be suitable for nesting. This species has not yet been observed within the Study Area.

Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*). CDFW Species of Special Concern. Moderate Potential. This subspecies of the common and widespread savannah sparrow is a year-round resident of the coastal California fog belt. It typically occupies upper tidally-influenced habitats, often found where wetland communities merge into grassland. Nesting occurs in vegetation on or near the ground, including along roads, levees, and canals (Shuford and Gardali 2008). Like most sparrows, Bryant's consumes primarily invertebrates and vegetable matter (e.g., seeds). The Study Area is within this subspecies' range and contains grasslands near wetlands that may support foraging and nesting for this subspecies. This species has not yet been observed within the Study Area.

Samuels song sparrow (*Melospiza melodia samuelis*). CDFW Species of Special Concern, USFWS Bird of Conservation Concern. Moderate Potential. Also known as the San Pablo song sparrow, this subspecies of the common and widespread song sparrow is endemic to tidal and semi-tidal marshes of San Pablo Bay and northern San Francisco Bay. The essential habitat requirement is dense, taller emergent and herbaceous vegetation, particularly in the upper marsh plain; high-quality habitat tends to include woody shrubs in the upper marsh and adjacent transitional areas (Shuford and Gardali 2008). Nests are placed in dense vegetative cover, and invertebrates compose most of the diet. The Study Area is within this subspecies' home range, and contains wetland vegetation that may support foraging and nesting for this subspecies, although it is not the primary salt marsh habitat. This species has not yet been observed within the Study Area.

San Francisco (saltmarsh) common yellowthroat (*Geothlypis trichas sinuosa*), USFWS Bird of Conservation Concern, CDFW Species of Special Concern. Moderate Potential. This subspecies of the common yellowthroat is found in freshwater marshes, coastal swales, riparian thickets, brackish marshes, and saltwater marshes. Their breeding range extends from

Tomales Bay in the north, Carquinez Strait to the east, and Santa Cruz County to the south. This species requires thick, continuous cover such as tall grasses, tule patches, or riparian vegetation down to the water surface for foraging and prefers willows for nesting (Shuford and Gardali 2008). The Study Area is within this subspecies' range and contains emergent dense wetland vegetation suitable for foraging and nesting. This species has not yet been observed within the Study Area.

Allen's hummingbird (*Selasphorus sasin*). USFWS Bird of Conservation Concern. Present. Allen's hummingbird, common in many portions of its range, is a summer resident along the majority of California's coast and a year-round resident in portions of coastal southern California and the Channel Islands. Breeding occurs in association with the coastal fog belt, and typical habitats used include coastal scrub, riparian, woodland and forest edges, and eucalyptus and cypress groves (Mitchell 2000). It feeds on nectar, as well as insects and spiders. One individual was observed in the Study Area during a WRA survey in March 2017. This species breeds in Solano County (Rippey et al. 2014); and the Study Area contains dense vegetation to support nesting along its southern perimeter. This species has not yet been observed within the Study Area.

<u>California Red-legged Frog</u>

CRLF is listed as Threatened under the ESA and is a California Species of Special Concern. CRLF is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, red-legged frogs disperse away from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat is characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late November and late April. CRLF can be found during the dry months in small mammal burrows, moist leaf litter, incised stream channels, and large cracks in the bottom of dried ponds.

CRLF is known from the open ranchlands to the north and east of the Study Area. One occurrence of CRLF has been documented approximately 0.9 miles northeast of the Study Area (CDFW 2017), opposite a large commercial shopping center, residential development, and several major arterial roads. CRLF has not been detected, nor is expected to occur within the Study Area. A CRLF survey conducted by Olberding Environmental in June of 2016 did not detect any CRLF within the Study Area, and WRA completed protocol-level surveys per USFWS guidance, and no lifestage of CRLF were detected. The results of the protocol-level surveys will be prepared as a standalone report.

In addition to these surveys, the Study Area does not contain any habitat capable of supporting CRLF, and the site is surrounded by complete barriers to dispersal, therefore CRLF is unlikely to occur. The site supports several acres of seasonal wetland swale that results from non-point source storm run-off from surrounding residential and commercial developments. The Study Area contains a small (85 feet) day-lighted section of Blue Rock Springs Creek in the far southwestern corner. CRLF are not known to occur in this creek and is not hydrologically connected to any known CRLF aquatic habitats. Finally, this section of creek was sampled for CRLF environmental DNA (eDNA) on May 31, 2017. Based on the laboratory analysis of these samples, CRLF was determined to be absent upstream and downstream of the Study Area. The 2016 CRLF survey noted that site conditions were dry in June of that year (Olberding 2016). Furthermore, in 2017, a year where precipitation exceeded 150 percent of average, the wetlands features were observed to be completely dry in May, when CRLF young would still dependent on water prior to

metamorphosis. Therefore, there are no wetlands within the site that can support CRLF habitation.

No dispersal corridors are present that would allow CRLF to immigrate or emigrate from Study Area. The Study Area is bordered by Admiral Callaghan Lane and Interstate 80. The north side is bordered by Gateway Plaza. The southern edge is bordered by an apartment complex and a commercial development. All of these features represent complete barriers to dispersal (USFWS 2010) and prevent ingress or egress to the Study Area. Because the site lacks aquatic habitat, even in a very wet year, and there is no potential for overland dispersal, and the species appears to be absent from the site, CRLF are not expected to occur within the Study Area.

Critical Habitat and Essential Fish Habitat

The Study Area does not contain designated Critical Habitat for any listed species. The Study Area is also not connected to a natural watercourse and thus, has no potential to impact migratory fish or other special-status fish species, nor does the Study Area contain Essential Fish Habitat. Blue Rock Springs Creek crosses the southwest boundary of the Study Area, subsequently undergrounds downstream, and is thus not accessible by in migrating special-status fish.

5.0 SUMMARY AND RECOMMENDATIONS

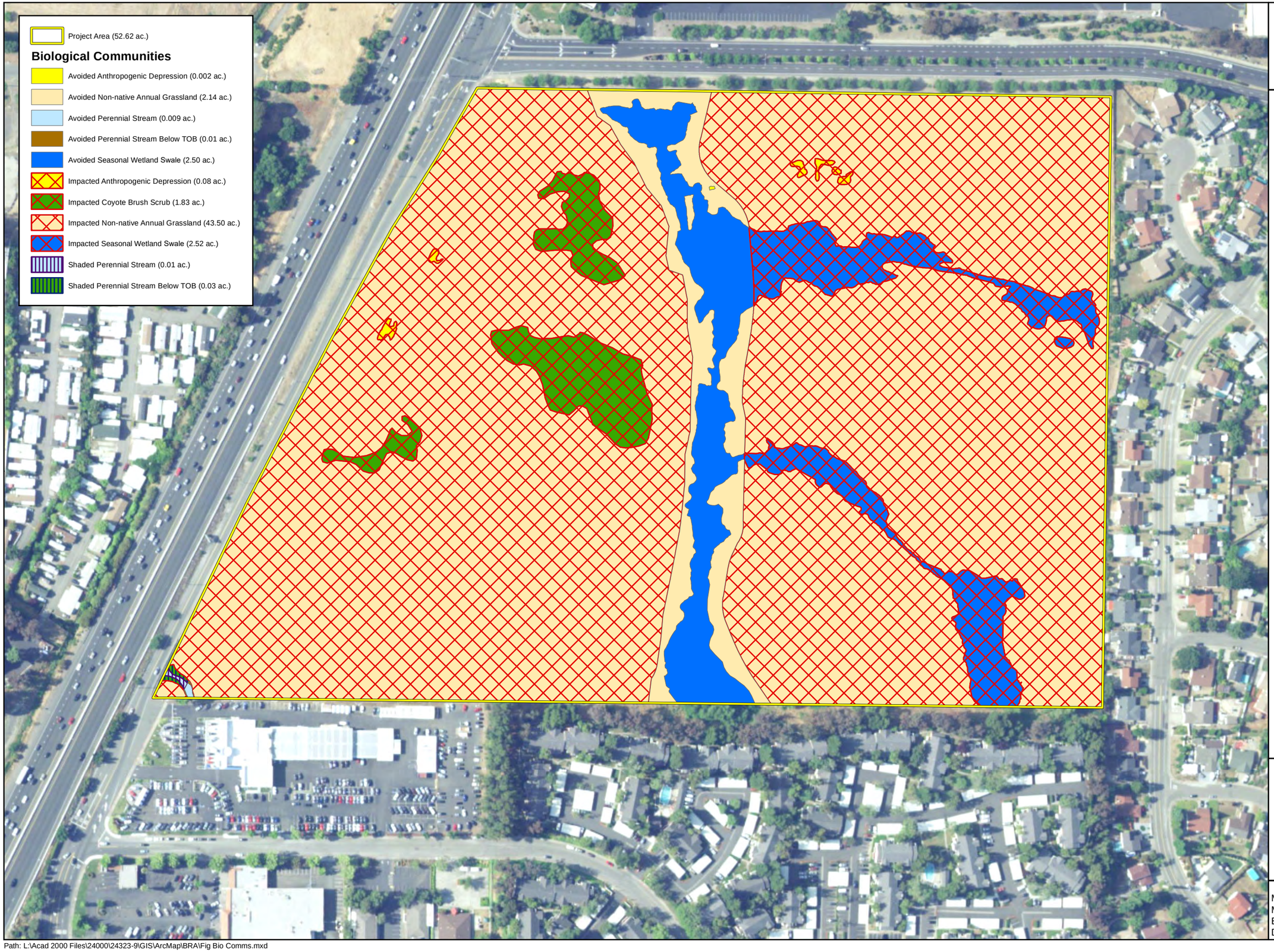
Three sensitive biological communities were identified within the Study Area. One special-status plant species was determined to have a moderate potential to occur within the Study Area, but it was not observed during the May 2017 survey. Eight special-status wildlife species were determined to have a moderate or high potential to occur within the Study Area, and one special-status bird species was observed within the Study Area. The following sections discuss potential agency consultation requirements to implement the proposed Fairview at Vallejo Project (Project).

5.1 Biological Communities

The Study Area contains three sensitive biological communities including perennial stream, anthropogenic depressions, and seasonal wetland swales. Project activity will impact 2.52 acres of seasonal wetland swale and 0.08 acre of anthropogenic depression (Figure 5). The Project will also result in shading to 0.01 acre of perennial stream below the OHWM (0.03 acre below top of bank) (Figure 5). Wetland swales and anthropogenic depressions are within the jurisdiction of the Corps under Section 404 of the CWA and the RWQCB under the Porter Cologne Act and Section 401 of the CWA. The perennial stream is jurisdictional by those agencies as well as the CDFW under Section 1602 of the California Fish and Game Code. Permits from these agencies will be required for work within or affecting wetlands and open water habitats.

5.2 Special-Status Plant Species

The Study Area has a moderate potential to support one special-status plant species: coast iris. Following observation of this species blooming at a nearby reference site, a protocol-level plant survey was conducted within the Study Area; no coast iris individuals were documented. As such, coast iris was found to be absent from the Study Area, and no avoidance and minimization measures are recommended for this species.



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Fairview at Northgate

Solano County, California

Figure 5.

Project Impacts to Biological Communities

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Map Prepared By: czumwalt
Base Source: USGS EROS Ortho 1ft.
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5.3 Special-Status Wildlife Species

The Study Area has moderate to high potential to support nesting for eight special-status bird species including: white-tailed kite, northern harrier, Nuttall's woodpecker, oak titmouse, loggerhead shrike, Bryant's savannah sparrow, Samuel's song sparrow, and San Francisco common yellowthroat. In addition, a special-status bird was observed during the May visit: Allen's hummingbird. The Study Area has potential to support common bird species protected by the Migratory Bird Treaty Act and California Fish and Game Code. Activities that result in the removal of active nests (nests containing eggs and/or young) or disturbance to nesting birds sufficient to result in the abandonment of active nests may be considered a significant impact under CEQA and a violation of the Migratory Bird Treaty Act and the California Fish and Game Code.

To avoid impacts to both special-status and non-special-status bird species, proposed Project activities should be initiated outside of the nesting season to the extent feasible (September 1 - January 31). However, if vegetation removal, grading, or initial ground-disturbing activities must be conducted during the nesting season, a pre-construction nesting bird survey should be conducted by a qualified biologist prior to vegetation removal or initial ground disturbance. Nesting habitat may include grasslands, shrubs, trees, snags and open ground. The survey should be conducted in a sufficient area around the work site to identify the location and status of any nests that could potentially be affected by Project activities.

If active nests are found within the proposed Project limit of impact or close enough to these areas to affect breeding success, a work exclusion zone should be established around each nest by a qualified biologist. Established exclusion zones should remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers and ambient sound levels, and other factors; an exclusion zone radius may be as small as 25 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified biologist indicating that work activities outside the reduced radius are not adversely impacting the nest.

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APPENDIX A

LIST OF OBSERVED PLANT AND WILDLIFE SPECIES

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Appendix A-1. Plant Species Observed in the Study Area.

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Aizoaceae	*Carpobrotus edulis*	Iceplant	non-native (invasive)	perennial herb	-	High	-
Alliaceae	*Allium amplectens*	Narrow leaved onion	native	perennial herb (bulb)	-	-	-
Anacardiaceae	*Pistacia* sp.	Pistacio	non-native	tree	-	-	-
Anacardiaceae	*Toxicodendron diversilobum*	Poison oak	native	vine, shrub	-	-	FACU
Apiaceae	*Foeniculum vulgare*	Fennel	non-native (invasive)	perennial herb	-	High	-
Araliaceae	*Hedera helix*	English ivy	non-native (invasive)	vine, shrub	-	-	FACU
Asteraceae	*Baccharis pilularis* ssp. *consanguinea*	Coyote brush	native	shrub	-	-	-
Asteraceae	*Calendula arvensis*	Field marigold	non-native	annual herb	-	-	-
Asteraceae	*Centaurea calcitrapa*	Purple star thistle	non-native (invasive)	annual, perennial herb	-	Moderate	-
Asteraceae	*Centaurea solstitialis*	Yellow starthistle	non-native (invasive)	annual herb	-	High	-
Asteraceae	*Cichorium intybus*	Chicory	non-native	perennial herb	-	-	FACU
Asteraceae	*Cirsium vulgare*	Bullthistle	non-native (invasive)	perennial herb	-	Moderate	FACU
Asteraceae	*Cynara cardunculus* ssp. *flavescens*	Cardoon	non-native	perennial herb	-	-	-

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Asteraceae	*Dittrichia graveolens*	Stinkwort	non-native (invasive)	annual herb	-	Moderate	-
Asteraceae	*Helminthotheca echioides*	Bristly ox-tongue	non-native (invasive)	annual, perennial herb	-	Limited	FAC
Asteraceae	*Hypochaeris glabra*	Smooth cats ear	non-native (invasive)	annual herb	-	Limited	-
Asteraceae	*Hypochaeris radicata*	Hairy cats ear	non-native (invasive)	perennial herb	-	Moderate	FACU
Asteraceae	*Lactuca serriola*	Prickly lettuce	non-native (invasive)	annual herb	-	-	FACU
Asteraceae	*Psilocarphus tenellus*	Slender woolly heads	native	annual herb	-	-	OBL
Asteraceae	*Sonchus oleraceus*	Sow thistle	non-native	annual herb	-	-	UPL
Asteraceae	*Symphyotrichum cf. subspicatum*	Douglas aster	native	perennial herb	-	-	FACW
Asteraceae	*Tragopogon porrifolius*	Salsify	non-native	perennial herb	-	-	-
Asteraceae	*Wyethia angustifolia*	Narrow leaved mule ears	native	perennial herb	-	-	FACU
Betulaceae	*Alnus rhombifolia*	White alder	native	tree	-	-	FACW
Brassicaceae	*Brassica nigra*	Black mustard	non-native (invasive)	annual herb	-	Moderate	-
Brassicaceae	*Hirschfeldia incana*	Mustard	non-native (invasive)	perennial herb	-	Moderate	-

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Brassicaceae	*Nasturtium officinale*	Watercress	native	perennial herb (aquatic)	-	-	OBL
Brassicaceae	*Raphanus sativus*	Jointed charlock	non-native (invasive)	annual, biennial herb	-	Limited	-
Cactaceae	*Opuntia* sp.	Prickly pear	non-native	shrub	-	-	-
Caryophyllaceae	*Spergularia rubra*	Purple sand spurry	non-native	annual, perennial herb	-	-	FAC
Chenopodiaceae	*Atriplex prostrata*	Fat-hen	non-native	annual herb	-	-	FACW
Convolvulaceae	*Convolvulus arvensis*	Field bindweed	non-native (invasive)	perennial herb, vine	-	-	-
Crassulaceae	*Crassula aquatica*	Aquatic pygmy weed	native	annual herb	-	-	OBL
Cupressaceae	*Hesperocyparis macrocarpa*	Monterey cypress	native	tree	Rank 1B.2*	-	-
Cyperaceae	*Bolboschoenus* sp.	Bulrush	native	perennial grasslike herb	-	-	OBL
Cyperaceae	*Cyperus eragrostis*	Tall cyperus	native	perennial grasslike herb	-	-	FACW
Cyperaceae	*Eleocharis macrostachya*	Spike rush	native	perennial grasslike herb	-	-	OBL
Cyperaceae	*Schoenoplectus acutus* var. *occidentalis*	Tule	native	perennial grasslike herb	-	-	OBL
Cyperaceae	*Schoenoplectus americanus*	Chairmaker's bulrush	native	perennial grasslike herb	-	-	OBL

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Dipsacaceae	*Dipsacus sativus*	Indian teasel	non-native (invasive)	biennial herb	-	Moderate	-
Fabaceae	*Acmispon americanus* var. *americanus*	Spanish lotus	native	annual herb	-	-	UPL
Fabaceae	*Genista monspessulana*	French broom	non-native (invasive)	shrub	-	High	-
Fabaceae	*Lotus corniculatus*	Bird's foot trefoil	non-native (invasive)	perennial herb	-	-	FAC
Fabaceae	*Lupinus formosus* var. *formosus*	Western lupine	native	perennial herb	-	-	-
Fabaceae	*Medicago polymorpha*	California burclover	non-native (invasive)	annual herb	-	Limited	FACU
Fabaceae	*Melilotus indicus*	Annual yellow sweetclover	non-native	annual herb	-	-	FACU
Fabaceae	*Trifolium dubium*	Shamrock	non-native	annual herb	-	-	UPL
Fabaceae	*Trifolium fragiferum*	Strawberry clover	non-native	perennial herb	-	-	FAC
Fabaceae	*Trifolium fucatum*	Bull clover	native	annual herb	-	-	FACU
Fabaceae	*Trifolium hirtum*	Rose clover	non-native (invasive)	annual herb	-	Limited	-
Fabaceae	*Vicia benghalensis*	Purple vetch	non-native	annual herb, vine	-	-	-
Fabaceae	*Vicia sativa*	Spring vetch	non-native	annual herb, vine	-	-	FACU

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Fabaceae	*Vicia villosa*	Hairy vetch	non-native (invasive)	annual herb, vine	-	-	-
Fagaceae	*Quercus agrifolia* var. *agrifolia*	Coast live oak	native	tree	-	-	-
Fagaceae	*Quercus ilex*	Holly oak	non-native	tree	-	-	-
Geraniaceae	*Erodium botrys*	Big heron bill	non-native (invasive)	annual herb	-	-	FACU
Geraniaceae	*Erodium cicutarium*	Coastal heron's bill	non-native (invasive)	annual herb	-	Limited	-
Geraniaceae	*Geranium dissectum*	Wild geranium	non-native (invasive)	annual herb	-	Limited	-
Geraniaceae	*Geranium robertianum*	Robert's geranium	non-native (invasive)	annual herb	-	-	FACU
Iridaceae	*cf. Chasmanthe* sp.	African corn flag	non-native	perennial herb	-	-	-
Iridaceae	*Iris* sp.	Ornamental iris	non-native	perennial herb	-	-	-
Iridaceae	*Sisyrinchium bellum*	Blue eyed grass	native	perennial herb	-	-	FACW
Juglandaceae	*Juglans hindsii*	Northern california black walnut	native	tree	Rank 1B.1*	-	FAC
Juncaceae	*Juncus balticus* ssp. *ater*	Baltic rush	native	perennial grasslike herb	-	-	FACW
Juncaceae	*Juncus bufonius*	Common toad rush	native	annual grasslike herb	-	-	FACW

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Juncaceae	*Juncus tenuis*	Slender rush	native	perennial grasslike herb	-	-	FACW
Juncaceae	*Juncus xiphioides*	Iris leaved rush	native	perennial grasslike herb	-	-	OBL
Lamiaceae	*Stachys albens*	Cobwebby hedge nettle	native	perennial herb	-	-	OBL
Lythraceae	*Lythrum hyssopifolia*	Hyssop loosestrife	non-native	annual, perennial herb	-	-	OBL
Malvaceae	*Malva* sp.	Mallow	non-native	annual herb	-	-	-
Moraceae	*Ficus carica*	Common fig	non-native (invasive)	tree	-	Moderate	FACU
Myrsinaceae	*Lysimachia arvensis*	Scarlet pimpernel	non-native	annual herb	-	-	FAC
Myrtaceae	*Eucalyptus globulus*	Blue gum	non-native (invasive)	tree	-	Limited	-
Oleaceae	*Ligustrum* sp.	Privet	non-native	tree, shrub	-	-	-
Oleaceae	*Olea europaea*	Olive	non-native (invasive)	tree, shrub	-	Limited	-
Onagraceae	*Epilobium brachycarpum*	Willow herb	native	annual herb	-	-	-
Onagraceae	*Epilobium ciliatum*	Slender willow herb	native	perennial herb	-	-	FACW
Onagraceae	*Taraxia ovata*	Sun cup	native	perennial herb	-	-	-
Orobanchaceae	*Bellardia trixago*	Mediterranean lineseed	non-native (invasive)	annual herb	-	Limited	-

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Orobanchaceae	*Parentucellia viscosa*	Yellow parentucellia	non-native (invasive)	annual herb	-	Limited	FAC
Papaveraceae	*Eschscholzia californica*	California poppy	native	annual, perennial herb	-	-	-
Pinaceae	*Pinus* sp.	Pine	non-native	evergreen tree	-	-	-
Plantaginaceae	*Kickxia spuria*	Fluellin	non-native	perennial herb	-	-	-
Plantaginaceae	*Plantago lanceolata*	Ribwort	non-native (invasive)	perennial herb	-	Limited	FAC
Platanaceae	*Platanus ×hispanica*	London plane tree	non-native	deciduous tree	-	-	-
Poaceae	*Avena barbata*	Slim oat	non-native (invasive)	annual, perennial grass	-	Moderate	-
Poaceae	*Avena fatua*	Wildoats	non-native (invasive)	annual grass	-	Moderate	-
Poaceae	*Briza minor*	Little rattlesnake grass	non-native	annual grass	-	-	FAC
Poaceae	*Bromus catharticus*	Rescue grass	non-native	annual, perennial grass	-	-	-
Poaceae	*Bromus diandrus*	Ripgut brome	non-native (invasive)	annual grass	-	Moderate	-
Poaceae	*Bromus hordeaceus*	Soft chess	non-native (invasive)	annual grass	-	Limited	FACU
Poaceae	*Cortaderia selloana*	Pampas grass	non-native (invasive)	perennial grass	-	High	FACU

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Poaceae	*Crypsis schoenoides*	Swamp grass	non-native	annual grass	-	-	FACW
Poaceae	*Distichlis spicata*	Salt grass	native	perennial grass	-	-	FAC
Poaceae	*Elymus caput-medusae*	Medusa head	non-native	annual grass	-	-	-
Poaceae	*Elymus triticoides*	Beardless wild rye	native	perennial grass	-	-	FAC
Poaceae	*Festuca bromoides*	Brome fescue	non-native	annual grass	-	-	FACU
Poaceae	*Festuca myuros*	Rattail sixweeks grass	non-native (invasive)	annual grass	-	-	FACU
Poaceae	*Festuca perennis*	Italian rye grass	non-native	annual, perennial grass	-	-	FAC
Poaceae	*Glyceria declinata*	Waxy mannagrass	non-native (invasive)	perennial grass	-	Moderate	FACW
Poaceae	*Holcus lanatus*	Common velvetgrass	non-native (invasive)	perennial grass	-	Moderate	FAC
Poaceae	*Hordeum brachyantherum*	Meadow barley	native	perennial grass	-	-	FACW
Poaceae	*Hordeum marinum* ssp. *gussoneanum*	Barley	non-native (invasive)	annual grass	-	Moderate	FAC
Poaceae	*Hordeum murinum*	Foxtail barley	non-native (invasive)	annual grass	-	Moderate	FACU
Poaceae	*Paspalum dilatatum*	Dallis grass	non-native	perennial grass	-	-	FAC
Poaceae	*Phalaris aquatica*	Harding grass	non-native (invasive)	perennial grass	-	Moderate	FACU

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Poaceae	*Phalaris paradoxa*	Hood canarygrass	non-native	annual grass	-	-	FAC
Poaceae	*Polypogon monspeliensis*	Annual beard grass	non-native (invasive)	annual grass	-	Limited	FACW
Polygonaceae	*Rumex acetosella*	Sheep sorrel	non-native (invasive)	perennial herb	-	Moderate	FACU
Polygonaceae	*Rumex crispus*	Curly dock	non-native (invasive)	perennial herb	-	Limited	FAC
Polygonaceae	*Rumex pulcher*	Fiddleleaf dock	non-native	perennial herb	-	-	FAC
Rhamnaceae	*Rhamnus alaternus*	Italian buckthorn	non-native	shrub	-	-	FACU
Rosaceae	*Cotoneaster pannosus*	Woolly cotoneaster	non-native (invasive)	shrub	-	Moderate	-
Rosaceae	*Fragaria vesca*	Wild strawberry	native	perennial herb	-	-	UPL
Rosaceae	*Heteromeles arbutifolia*	Toyon	native	shrub	-	-	-
Rosaceae	*Prunus cerasifera*	Cherry plum	non-native (invasive)	tree	-	Limited	-
Rosaceae	*Prunus dulcis*	Almond	non-native	tree	-	-	-
Rosaceae	*Prunus persica*	Peach	non-native	tree	-	-	-
Rosaceae	*Pyracantha* sp.	Firethorn	non-native	shrub	-	-	-
Rosaceae	*Pyrus* sp.	Pear	non-native	tree	-	-	-
Rosaceae	*Rubus armeniacus*	Himalayan blackberry	non-native (invasive)	shrub	-	High	FAC
Rubiaceae	*Galium aparine*	Cleavers	native	annual herb	-	-	FACU

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Salicaceae	*Salix gooddingii*	Gooding's willow	native	tree	-	-	FACW
Salicaceae	*Salix laevigata*	Red willow	native	tree	-	-	FACW
Salicaceae	*Salix lasiolepis*	Arroyo willow	native	shrub, tree			FACW
Tamaricaceae	*Tamarix* sp.	Tamarisk	non-native	shrub, tree	-	High	-
Themidaceae	*Triteleia hyacinthina*	Wild hyacinth	native	perennial herb	-	-	FAC
Typhaceae	*Typha* sp.	Cattail	unknown	perennial herb	-	-	OBL
Ulmaceae	*Ulmus* sp.	Elm	non-native	tree	-	-	-
Vitaceae	*Vitis vinifera*	Cultivated grape	non-native	vine, shrub	-	-	-

- All species identified using the *Jepson eFlora* [Jepson Flora Project (eds.) 2017]; nomenclature follows *Jepson eFlora* [Jepson Flora Project (eds.) 2017]

*Special-status only in its native range. The Project Area is outside of the native range of this species

[1]Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2017)

FE:	Federal Endangered
FT:	Federal Threatened
SE:	State Endangered
ST:	State Threatened
SR:	State Rare
Rank 1A:	Plants presumed extinct in California
Rank 1B:	Plants rare, threatened, or endangered in California and elsewhere. Generally regarded as special-status in native stands only.
Rank 2:	Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3:	Plants about which we need more information – a review list
Rank 4:	Plants of limited distribution – a watch list

[2]Invasive Status: California Invasive Plant Inventory (Cal-IPC 2017)

High:	Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.
Moderate:	Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited-moderate distribution ecologically
Limited:	Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically
Assessed:	Assessed by Cal-IPC and determined to not be an existing current threat

[3]Wetland Status: National List of Plant Species that Occur in Wetlands, California – Arid West (Lichvar et al. 2016)

OBL:	Almost always found in wetlands; >99% frequency
FACW:	Usually found in wetlands; 67-99% frequency
FAC:	Equally found in wetlands and uplands; 34-66% frequency
FACU:	Usually not found in wetlands; 1-33% frequency
UPL:	Almost never found in wetlands; >1% frequency

NL:	Not listed, assumed almost never found in wetlands; >1% frequency
NI:	No information; not factored during wetland delineation

Appendix A-2. Wildlife species observed in the Study Area

Scientific Name	Common Name
Mammals	
Didelphis virginiana	American opossum
Lepus californicus	black-tailed jackrabbit
Felis catus	domestic cat
Birds	
Calypte anna	Anna's hummingbird
Selasphorus sasin	Allen's hummingbird
Anas platyrhynchos	mallard
Falco sparverius	American kestrel
Buteo lineatus	red-shouldered hawk
Cathartes aura	turkey vulture
Ardea alba	great egret
Columba livia	rock pigeon
Sayornis nigricans	black phoebe
Psaltriparus minimus	bushtit
Mimus polyglottos	northern mockingbird
Corvus brachyrhynchos	American crow
Spinus psaltria	lesser goldfinch
Haemorhous mexicanus	house finch
Junco hyemalis	dark-eyed junco
Melozone crissalis	California towhee
Passerculus sandwichensis	savannah sparrow
Melospiza melodia	song sparrow
Zonotrichia leucophrys	white-crowned sparrow
Sturnella neglecta	western meadowlark
Reptiles and Amphibians	
Pseudacris regilla	northern Pacific treefrog

APPENDIX B

POTENTIAL FOR SPECIAL-STATUS SPECIES TO OCCUR IN THE STUDY AREA

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Appendix B. Special status animal species known to occur in in the vicinity of the Study Area. List of animals compiled from USFWS species list (USFWS 2017) and CNDDB 9-quad species list (CDFW 2017) for Napa, Mt. George, Fairfield North, Cuttings Wharf, Cordelia, Fairfield South, Mare Island, Benicia, and Vine Hill and other CDFW lists and publications.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Plants				
Henderson's bent grass *Agrostis hendersonii*	Rank 3.2	Valley and foothill grassland (mesic), vernal pools. Elevation ranges from 230 to 1000 feet (70 to 305 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain vernal pool habitat, and any mesic grassland is highly disturbed by vehicle activity.	No further actions are recommended for this species.
Napa false indigo *Amorpha californica var. napensis*	Rank 1B.2	Broadleafed upland forest (openings), chaparral, cismontane woodland. Elevation ranges from 390 to 6560 feet (120 to 2000 meters). Blooms Apr-Jul.	**No Potential.** The Study Area does not contain chaparral habitat. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory.	No further actions are recommended for this species.
modest rockcress *Arabis modesta*	Rank 4.3	Chaparral, lower montane coniferous forest. Elevation ranges from 390 to 2620 feet (120 to 800 meters). Blooms Mar-Jul.	**No Potential.** The Study Area does not contain chaparral or lower montane coniferous forest habitats.	No further actions are recommended for this species.
alkali milk-vetch *Astragalus tener var. tener*	Rank 1B.2	Playas, valley and foothill grassland (adobe clay), vernal pools/alkaline. Elevation ranges from 0 to 200 feet (1 to 60 meters). Blooms Mar-Jun.	**No Potential.** The Study Area does not contain playas, vernal pools, or alkaline adobe clay grassland.	No further actions are recommended for this species.
crownscale *Atriplex coronata var. coronata*	Rank 4.2	Chenopod scrub, valley and foothill grassland, vernal pools/alkaline, often clay. Elevation ranges from 0 to 1940 feet (1 to 590 meters). Blooms Mar-Oct.	**No Potential.** The Study Area does not contain chenopod scrub, alkaline clay grassland, or vernal pool habitats.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
vernal pool smallscale *Atriplex persistens*	Rank 1B.2	Vernal pools (alkaline). Elevation ranges from 30 to 380 feet (10 to 115 meters). Blooms Jun-Oct.	**No Potential.** The Study Area does not contain vernal pool habitat.	No further actions are recommended for this species.
big-scale balsamroot *Balsamorhiza macrolepis*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentine. Elevation ranges from 300 to 5100 feet (90 to 1555 meters). Blooms Mar-Jun.	**Unlikely.** The Study Area does not contain chaparral, cismontane woodland, or valley and foothill grassland/ sometimes serpentine.	No further actions are recommended for this species.
big tarplant *Blepharizonia plumosa*	Rank 1B.1	Valley and foothill grassland/usually clay. Elevation ranges from 100 to 1660 feet (30 to 505 meters). Blooms Jul-Oct.	**Unlikely.** The Study Area contains grassland habitat, but it is highly disturbed from past vehicle activity.	No further actions are recommended for this species.
narrow-anthered brodiaea *Brodiaea leptandra*	Rank 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland/volcanic. Elevation ranges from 360 to 3000 feet (110 to 915 meters). Blooms May-Jul.	**No Potential.** The Study Area does not contain volcanic substrates. Therefore, there is no potential for this species to occur within the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Brewer's calandrinia *Calandrinia breweri*	Rank 4.2	Chaparral, coastal scrub/sandy or loamy, disturbed sites and burns. Elevation ranges from 30 to 4000 feet (10 to 1220 meters). Blooms (Jan), Mar-Jun.	**Unlikely.** The Study Area does not contain chaparral, burned areas, or sandy soils. This species is often associated with burned or disturbed chaparral or other shrubland habitat; although the Study Area contains patches of coyote brush scrub, these patches are small and more indicative of a grassland converting to a shrub community rather than the regeneration of an existing shrubland. This species is disturbance-tolerant, but the Study Area is highly disturbed by extensive and prolonged vehicle activity and other anthropogenic disturbance and is heavily dominated by non-native species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Mt. Diablo fairy-lantern *Calochortus pulchellus*	Rank 1B.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. Elevation ranges from 100 to 2760 feet (30 to 840 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain chaparral or riparian woodland habitats. The Study Area contains a small, wooded area, but it is primarily remnant landscaping and has a very weedy understory. Grassland habitat and coyote brush scrub habitats in the Study Area are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are very weedy.	No further actions are recommended for this species.
Lyngbye's sedge *Carex lyngbyei*	Rank 2B.2	Marshes and swamps (brackish or freshwater). Elevation ranges from 0 to 30 feet (0 to 10 meters). Blooms Apr-Aug.	**Unlikely.** Small portions of seasonal wetland swales within the Study Area are dominated by cattails, but these areas are small, isolated, and highly disturbed by past vehicle activity.	No further actions are recommended for this species.
Tiburon paintbrush *Castilleja affinis var. neglecta*	FE, ST, Rank 1B.2	Valley and foothill grassland (serpentine). Elevation ranges from 200 to 1310 feet (60 to 400 meters). Blooms Apr-Jun.	**No Potential.** The Study Area does not contain serpentine substrate.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
johnny-nip *Castilleja ambigua var. ambigua*	Rank 4.2	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal poolsmargins. Elevation ranges from 0 to 1430 feet (0 to 435 meters). Blooms Mar-Aug.	**Unlikely.** The Study Area does not contain coastal bluff scrub, coastal prairie, or venal pool habitats. Grassland and coyote brush scrub habitats in the Study Area are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are very weedy. Small portions of seasonal wetland swales within the Study Area are dominated by cattails, but these areas are small, isolated, and highly disturbed by past vehicle activity.	No further actions are recommended for this species.
holly-leaved ceanothus *Ceanothus purpureus*	Rank 1B.2	Chaparral, cismontane woodland/volcanic, rocky. Elevation ranges from 390 to 2100 feet (120 to 640 meters). Blooms Feb-Jun.	**No Potential.** The Study Area does not contain rocky, volcanic substrate.	No further actions are recommended for this species.
Congdon's tarplant *Centromadia parryi ssp. congdonii*	Rank 1B.1	Valley and foothill grassland (alkaline). Elevation ranges from 0 to 750 feet (0 to 230 meters). Blooms May-Oct (Nov).	**No Potential.** The Study Area does not contain alkaline grassland habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
pappose tarplant *Centromadia parryi ssp. parryi*	Rank 1B.2	Chaparral, coastal prairie, meadows and seeps, marshes and swamps (coastal salt), valley and foothill grassland (vernally mesic)/often alkaline. Elevation ranges from 0 to 1380 feet (0 to 420 meters). Blooms May-Nov.	**Unlikely.** The Study Area does not contain chaparral, coastal prairie, or coastal salt marshes and swamps. The grassland and seasonal wetland swales are not alkaline, are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance, and are very weedy. In addition, no *Centromadia* species were observed during the May site visit.	No further actions are recommended for this species.
Parry's rough tarplant *Centromadia parryi ssp. rudis*	Rank 4.2	Valley and foothill grassland, vernal pools/alkaline, vernally mesic, seeps, sometimes roadsides. Elevation ranges from 0 to 330 feet (0 to 100 meters). Blooms May-Oct.	**Unlikely.** The Study Area does not contain alkaline valley and foothill grassland or vernal pool, or seep habitats. In addition, no Centromadia species were observed during the May site visit.	No further actions are recommended for this species.
soft bird's-beak *Chloropyron molle ssp. molle*	FE, SR, Rank 1B.2	Marshes and swamps (coastal salt). Elevation ranges from 0 to 10 feet (0 to 3 meters). Blooms Jul-Nov.	**No Potential.** The Study Area does not contain coastal salt marshes and swamps.	No further actions are recommended for this species.
Bolander's water-hemlock *Cicuta maculata var. bolanderi*	Rank 2B.1	Marshes and swampscoastal, fresh or brackish water. Elevation ranges from 0 to 660 feet (0 to 200 meters). Blooms Jul-Sep.	**Unlikely.** Small portions of seasonal wetland swales within the Study Area are dominated by cattails, but these areas are small, isolated, and highly disturbed by past vehicle activity.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Suisun thistle *Cirsium hydrophilum var. hydrophilum*	FE, Rank 1B.1	Marshes and swamps (salt). Elevation ranges from 0 to 0 feet (0 to 1 meters). Blooms Jun-Sep.	**No Potential.** The Study Area does not contain salt marshes and swamps.	No further actions are recommended for this species.
Tracy's clarkia *Clarkia gracilis ssp. tracyi*	Rank 4.2	Chaparral (openings, usually serpentine). Elevation ranges from 210 to 2130 feet (65 to 650 meters). Blooms Apr-Jul.	**No Potential.** The Study Area does not contain chaparral habitat or serpentine substrate.	No further actions are recommended for this species.
western leatherwood *Dirca occidentalis*	Rank 1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland/mesic. Elevation ranges from 80 to 1390 feet (25 to 425 meters). Blooms Jan-Mar (Apr).	**No Potential.** The Study Area does not contain closed-cone coniferous forest, chaparral, north coast coniferous forest, riparian forest, or riparian woodland. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory.	No further actions are recommended for this species.
dwarf downingia *Downingia pusilla*	Rank 2B.2	Valley and foothill grassland (mesic), vernal pools. Elevation ranges from 0 to 1460 feet (1 to 445 meters). Blooms Mar-May.	**No Potential.** The Study Area does not contain vernal pool habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
small spikerush *Eleocharis parvula*	Rank 4.3	Marshes and swamps. Elevation ranges from 0 to 9910 feet (1 to 3020 meters). Blooms (Apr), Jun-Aug (Sep).	**No Potential.** Small portions of seasonal wetland swales within the Study Area are dominated by cattails, but these areas are small, isolated, and highly disturbed by past vehicle activity. In addition, this species is primarily known from coastal salt marsh wetlands (CDFW 2017).	No further actions are recommended for this species.
streamside daisy *Erigeron biolettii*	Rank 3	Broadleafed upland forest, cismontane woodland, north coast coniferous forest/rocky, mesic. Elevation ranges from 100 to 3610 feet (30 to 1100 meters). Blooms Jun-Oct.	**No Potential.** The Study Area does not contain rocky substrate.	No further actions are recommended for this species.
Greene's narrow-leaved daisy *Erigeron greenei*	Rank 1B.2	Chaparral (serpentine or volcanic). Elevation ranges from 260 to 3300 feet (80 to 1005 meters). Blooms May-Sep.	**No Potential.** The Study Area does not contain chaparral habitat or serpentine or volcanic substrates.	No further actions are recommended for this species.
Tiburon buckwheat *Eriogonum luteolum var. caninum*	Rank 1B.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland/serpentine, sandy to gravelly. Elevation ranges from 0 to 2300 feet (0 to 700 meters). Blooms May-Sep.	**No Potential.** The Study Area does not contain serpentine substrate.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Mt. Diablo buckwheat *Eriogonum truncatum*	Rank 1B.1	Chaparral, coastal scrub, valley and foothill grassland/sandy. Elevation ranges from 10 to 1150 feet (3 to 350 meters). Blooms Apr-Sep (Nov), (Dec).	**No Potential.** This species occurs on dry, exposed clay or sandy substrates (CDFW 2017), which are not present in the Study Area.	No further actions are recommended for this species.
Jepson's coyote thistle *Eryngium jepsonii*	Rank 1B.2	Valley and foothill grassland, vernal pools/clay. Elevation ranges from 10 to 985 feet (3 to 300 meters). Blooms Apr-Aug.	**Unlikely.** The Study Area does not contain vernal pools. Areas with clay substrate are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance.	No further actions are recommended for this species.
San Joaquin spearscale *Extriplex joaquinana*	Rank 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland/alkaline. Elevation ranges from 0 to 2740 feet (1 to 835 meters). Blooms Apr-Oct.	**No Potential.** The Study Area does not contain chenopod scrub, playas, alkaline meadows and seeps,or alkaline valley and foothill grassland.	No further actions are recommended for this species.
fragrant fritillary *Fritillaria liliacea*	Rank 1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland/often serpentine. Elevation ranges from 10 to 1350 feet (3 to 410 meters). Blooms Feb-Apr.	**Unlikely.** The Study Area does not contain coastal prairie habitat or serpentine substrate. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory. Grassland and coyote brush scrub habitats in the Study Area are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are very weedy.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
woolly-headed gilia *Gilia capitata ssp. tomentosa*	Rank 1B.1	Coastal bluff scrub, valley and foothill grassland/serpentine, rocky, outcrops. Elevation ranges from 30 to 720 feet (10 to 220 meters). Blooms May-Jul.	**No Potential.** The Study Area does not contain serpentine, rocky substrate.	No further actions are recommended for this species.
nodding harmonia *Harmonia nutans*	Rank 4.3	Chaparral, cismontane woodland/rocky or gravelly, volcanic. Elevation ranges from 250 to 3200 feet (75 to 975 meters). Blooms Mar-May.	**No Potential.** The Study Area does not contain rocky or gravelly volcanic substrate.	No further actions are recommended for this species.
Diablo helianthella *Helianthella castanea*	Rank 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland/usually rocky, axonal soils. often in partial shade. Elevation ranges from 200 to 4270 feet (60 to 1300 meters). Blooms Mar-Jun.	**Unlikely.** The Study Area does not contain chaparral or riparian woodland habitats or rocky, azonal soils. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory. Grassland and coyote brush scrub habitats in the Study Area are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are very weedy.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Brewer's western flax *Hesperolinon breweri*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/usually serpentine. Elevation ranges from 100 to 3100 feet (30 to 945 meters). Blooms May-Jul.	**Unlikely.** The Study Area does not contain chaparral habitat or serpentine substrate. Grassland habitat in the Study Area is highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and is very weedy.	No further actions are recommended for this species.
Santa Cruz tarplant *Holocarpha macradenia*	FT, SE, Rank 1B.1	Coastal prairie, coastal scrub, valley and foothill grassland/often clay, sandy. Elevation ranges from 30 to 720 feet (10 to 220 meters). Blooms Jun-Oct.	**Unlikely.** The Study Area does not contain coastal prairie habitat or sandy or clay soils. Grassland and coyote brush scrub habitats in the Study Area are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are very weedy.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
coast iris *Iris longipetala*	Rank 4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps/mesic. Elevation ranges from 0 to 1970 feet (0 to 600 meters). Blooms Mar-May.	**Moderate Potential. Not Observed.** The Study Area does not contain coastal prairie or lower montane coniferous forest habitats. This species has been observed on hillsides in somewhat disturbed non-native annual grassland habitat approximately 6.5 miles northeast of the Study Area, and such habitat is present in the Study Area. However, this species was not observed during a survey which occurred after this species was observed and identifiable at a reference site and which occurred during the published blooming period of this species. Therefore, this species is assumed to be absent from the Study Area.	No further actions are recommended for this species.
Carquinez goldenbush *Isocoma arguta*	Rank 1B.1	Valley and foothill grassland (alkaline). Elevation ranges from 0 to 70 feet (1 to 20 meters). Blooms Aug-Dec.	**No Potential.** The Study Area does not contain alkaline valley and foothill grassland.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Northern California black walnut *Juglans hindsii*	Rank 1B.1	Riparian forest, riparian woodland. Elevation ranges from 0 to 1440 feet (0 to 440 meters). Blooms Apr-May.	**No Potential.** The Study Area does not contain riparian forest or riparian woodland. Only native occurrences of this species are considered special status, and the Study Area is not in or near a native occurrence. Outside of its highly restricted native range, this species is considered naturalized and is fairly widespread. A few small individuals of this species were observed in the Study Area, but they are small and assumed to be naturalized volunteers.	No further actions are recommended for this species.
Contra Costa goldfields *Lasthenia conjugens*	FE, Rank 1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/mesic. Elevation ranges from 0 to 1540 feet (0 to 470 meters). Blooms Mar-Jun.	**Unlikely.** The Study Area does not contain playa or vernal pool habitats. Seasonal wetland swales in the Study Area are highly disturbed by off-road vehicle activity.	No further actions are recommended for this species.
Ferris' goldfields *Lasthenia ferrisiae*	Rank 4.2	Vernal pools (alkaline, clay). Elevation ranges from 70 to 2300 feet (20 to 700 meters). Blooms Feb-May.	**No Potential.** The Study Area does not contain vernal pool habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Delta tule pea *Lathyrus jepsonii var. jepsonii*	Rank 1B.2	Marshes and swamps (freshwater and brackish). Elevation ranges from 0 to 20 feet (0 to 5 meters). Blooms May-Jul (Aug), (Sep).	**Unlikely.** Small portions of seasonal wetland swales within the Study Area are dominated by cattails, but these areas are small, isolated, and highly disturbed by past vehicle activity.	No further actions are recommended for this species.
legenere *Legenere limosa*	Rank 1B.1	Vernal pools. Elevation ranges from 0 to 2890 feet (1 to 880 meters). Blooms Apr-Jun.	**No Potential.** The Study Area does not contain vernal pool habitat.	No further actions are recommended for this species.
Jepson's leptosiphon *Leptosiphon jepsonii*	Rank 1B.2	Chaparral, cismontane woodland/usually volcanic. Elevation ranges from 330 to 1640 feet (100 to 500 meters). Blooms Mar-May.	**Unlikely.** The Study Area does not contain chaparral habitat or volcanic substrate. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory.	No further actions are recommended for this species.
woolly-headed lessingia *Lessingia hololeuca*	Rank 3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland/clay, serpentine. Elevation ranges from 50 to 1000 feet (15 to 305 meters). Blooms Jun-Oct.	**No Potential.** The Study Area does not contain serpentine substrate.	No further actions are recommended for this species.
Mason's lilaeopsis *Lilaeopsis masonii*	SR, Rank 1B.1	Marshes and swamps (brackish or freshwater), riparian scrub. Elevation ranges from 0 to 30 feet (0 to 10 meters). Blooms Apr-Nov.	**No Potential.** This species occurs in muddy, marshy areas in the tidal zone, typically along the Sacramento-San Joaquin River Delta (CDFW 2017). Such habitat is not present in the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
redwood lily *Lilium rubescens*	Rank 4.2	Broadleafed upland forest, chaparral, lower montane coniferous forest, north coast coniferous forest, upper montane coniferous forest/sometimes serpentine, sometimes roadsides. Elevation ranges from 100 to 6270 feet (30 to 1910 meters). Blooms Apr-Aug (Sep).	**Unlikely.** The Study Area does not chaparral, lower montane coniferous forest, north coast coniferous forest, or upper montane coniferous forest habitats or serpentine substrate. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory. .	No further actions are recommended for this species.
Delta mudwort *Limosella australis*	Rank 2B.1	Marshes and swamps (freshwater or brackish), riparian scrub/usually mud banks. Elevation ranges from 0 to 10 feet (0 to 3 meters). Blooms May-Aug.	**No Potential.** This species occurs in muddy, marshy areas in the tidal zone, typically along the Sacramento-San Joaquin River Delta (CDFW 2017). Such habitat is not present in the Study Area.	No further actions are recommended for this species.
Napa lomatium *Lomatium repostum*	Rank 4.3	Chaparral, cismontane woodland/serpentine. Elevation ranges from 300 to 2720 feet (90 to 830 meters). Blooms Mar-Jun.	**No Potential.** The Study Area does not contain serpentine substrate.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Mt. Diablo cottonweed *Micropus amphibolus*	Rank 3.2	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland/rocky. Elevation ranges from 150 to 2710 feet (45 to 825 meters). Blooms Mar-May.	**Unlikely.** The Study Area does not contain rocky substrate. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory. Grassland habitat in the Study Area is highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and is very weedy.	No further actions are recommended for this species.
green monardella *Monardella viridis*	Rank 4.3	Broadleafed upland forest, chaparral, cismontane woodland. Elevation ranges from 330 to 3310 feet (100 to 1010 meters). Blooms Jun-Sep.	**No Potential.** The Study Area does not contain broadleafed upland forest, chaparral, and cismontane woodland. Therefore, there is no potential for this species to occur within the Study Area.	No further actions are recommended for this species.
Baker's navarretia *Navarretia leucocephala ssp. bakeri*	Rank 1B.1	Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, vernal pools/mesic. Elevation ranges from 20 to 5710 feet (5 to 1740 meters). Blooms Apr-Jul.	**No Potential.** The Study Area does not contain vernal pools or vernal swale (CDFW 2017) habitats.	No further actions are recommended for this species.
Marin knotweed *Polygonum marinense*	Rank 3.1	Marshes and swamps (coastal salt or brackish). Elevation ranges from 0 to 30 feet (0 to 10 meters). Blooms (Apr), May-Aug (Oct).	**No Potential.** The Study Area does not contain coastal salt or brackish marsh and swamp habitats.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
California alkali grass *Puccinellia simplex*	Rank 1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools/alkaline, vernally mesic; sinks, flats, and lake margins. Elevation ranges from 10 to 3050 feet (2 to 930 meters). Blooms Mar-May.	**No Potential.** The Study Area does not contain alkaline sinks, flats, or lake margins.	No further actions are recommended for this species.
Lobb's aquatic buttercup *Ranunculus lobbii*	Rank 4.2	Cismontane woodland, north coast coniferous forest, valley and foothill grassland, vernal pools/mesic. Elevation ranges from 50 to 1540 feet (15 to 470 meters). Blooms Feb-May.	**Unlikely.** The Study Area does not contain north coast coniferous forest or vernal pool habitat. The wooded area in the West Area is primarily remnant landscaping, has a very weedy understory, and is not mesic. Grassland and seasonal wetland habitats in the Study Area are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are often very weedy.	No further actions are recommended for this species.
California beaked-rush *Rhynchospora californica*	Rank 1B.1	Bogs and fens, lower montane coniferous forest, meadows and seeps (seeps), marshes and swamps (freshwater). Elevation ranges from 150 to 3310 feet (45 to 1010 meters). Blooms May-Jul.	**Unlikely.** The Study Area does contain bog and fen habitats. The seasonal wetland swales are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are often very weedy.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
chaparral ragwort *Senecio aphanactis*	Rank 2B.2	Chaparral, cismontane woodland, coastal scrub/sometimes alkaline. Elevation ranges from 50 to 2620 feet (15 to 800 meters). Blooms Jan-Apr.	**Unlikely.** The Study Area does not contain chaparral habitat or alkaline substrate. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory. Grassland and coyote brush scrub habitats in the Study Area are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are very weedy.	No further actions are recommended for this species.
Napa checkerbloom *Sidalcea hickmanii ssp. napensis*	Rank 1B.1	Chaparral/rhyolitic. Elevation ranges from 1360 to 2000 feet (415 to 610 meters). Blooms Apr-Jun.	**No Potential.** The Study Area does not contain chaparral habitat or rhyolitic substrate.	No further actions are recommended for this species.
Marin checkerbloom *Sidalcea hickmanii ssp. viridis*	Rank 1B.1	Chaparral (serpentine). Elevation ranges from 160 to 1410 feet (50 to 430 meters). Blooms May-Jun.	**No Potential.** The Study Area does not contain chaparral habitat or serpentine or volcanic (CDFW 2017) substrates.	No further actions are recommended for this species.
slender-leaved pondweed *Stuckenia filiformis ssp. alpina*	Rank 2B.2	Marshes and swamps (assorted shallow freshwater). Elevation ranges from 980 to 7050 feet (300 to 2150 meters). Blooms May-Jul.	**Unlikely.** Small portions of seasonal wetland swales within the Study Area are dominated by cattails, but these areas are small, isolated, and highly disturbed by past vehicle activity.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Suisun Marsh aster *Symphyotrichum lentum*	Rank 1B.2	Marshes and swamps (brackish and freshwater). Elevation ranges from 0 to 10 feet (0 to 3 meters). Blooms (Apr), May-Nov.	**Unlikely.** Small portions of seasonal wetland swales within the Study Area are dominated by cattails, but these areas are small, isolated, and highly disturbed by past vehicle activity. In addition, Suisun Marsh aster is most often seen along sloughs associated with tidal influence or the Sacramento-San Joaquin River Delta, and such habitat is not present in the Study Area.	No further actions are recommended for this species.
Napa bluecurls *Trichostema ruygtii*	Rank 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, vernal pools. Elevation ranges from 100 to 2230 feet (30 to 680 meters). Blooms Jun-Oct.	**Unlikely.** The Study Area does not contain chaparral, lower montane coniferous forest, or vernal pools. Although the Study Area contains grassland and a small wooded area, both habitats are highly disturbed. In addition, this species typically occurs on thin clay soils on dry rocky slopes and flats that are adjacent to exposed volcanic bedrock, and these habitats are not present in the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
two-fork clover *Trifolium amoenum*	FE, Rank 1B.1	Coastal bluff scrub, valley and foothill grassland (sometimes serpentine). Elevation ranges from 20 to 1360 feet (5 to 415 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain coastal bluff scrub habitat or serpentine substrate. Grassland habitat in the Study Area is highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and is very weedy.	No further actions are recommended for this species.
saline clover *Trifolium hydrophilum*	Rank 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 980 feet (0 to 300 meters). Blooms Apr-Jun.	**No Potential**. The Study Area does not contain alkaline habitat.	No further actions are recommended for this species.
dark-mouthed triteleia *Triteleia lugens*	Rank 4.3	Broadleafed upland forest, chaparral, coastal scrub, lower montane coniferous forest. Elevation ranges from 330 to 3280 feet (100 to 1000 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain chaparral or lower montane coniferous forest habitats. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory. Grassland and coyote brush scrub habitats in the Study Area are highly disturbed from extensive and prolonged vehicle activity and other anthropogenic disturbance and are very weedy.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
oval-leaved viburnum *Viburnum ellipticum*	Rank 2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 710 to 4590 feet (215 to 1400 meters). Blooms May-Jun.	**Unlikely.** The Study Area does not contain chaparral or lower montane coniferous forest habitats. The wooded area in the West Area is primarily remnant landscaping and has a very weedy understory.	No further actions are recommended for this species.
MAMMALS				
Hoary bat *Lasiurus cinereus*	WBWG Medium	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Unlikely.** This species is typically associated with forested habitat. The wooded portion of the West Area is isolated and surrounded by development. Furthermore, the trees are unlikely to support roosting habitat because they are too small. This species may occasionally forage over the Study Area.	No further actions are recommended for this species.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC, WBWG High	This species is associated with a wide variety of habitats from deserts to mid-elevation mixed coniferous-deciduous forest. Females form maternity colonies in buildings, caves, and mines. Males roost singly or in small groups. Foraging occurs in open forest habitats where they glean moths from vegetation.	**No Potential.** The Study Area and adjacent areas do not contain open forest foraging habitat or suitable roosting habitat for the species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Big free-tailed bat *Nyctinomops macrotis*	SSC, WBWG med-high	Occurs rarely in low-lying arid areas in southern California. Requires high cliffs or rocky outcrops for roosting sites.	**No Potential.** The Study Area is outside of this species' typical range, although individuals may rarely fly over the Study Area during migration.	No further actions are recommended for this species.
Pallid bat *Antrozous pallidus*	SSC, WBWG High	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open areas, forages along river channels. Roost sites include old ranch buildings, rocky outcrops, and caves with sandstone outcroppings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Unlikely.** This species may occasionally forage over the Study Area; however, the Study Area lacks suitable roost structures for the species, such as buildings, rock outcrops, or caves.	No further actions are recommended for this species.
Salt marsh harvest mouse *Reithrodontomys raviventris*	FE, SE, CFP	Found only in saline emergent wetlands of San Francisco Bay and its tributaries. Primary habitat is dominated by pickleweed (*Salicornia*). Requires adjacent, upland areas as refuge during high tides.	**No Potential.** Salt marsh habitat is not present within the Study Area.	No further actions are recommended for this species.
Suisun shrew *Sorex ornatus sinuosus*	SSC	Tidal marshes of the northern shores of San Pablo and Suisun Bays. Requires dense low-lying cover, driftweed, and other litter above the mean high tide line for nesting and foraging.	**No Potential.** Tidal marsh habitat is not present and the Study Area is outside the known range of this subspecies.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Ringtail (ring-tailed cat) *Bassariscus astutus*	CFP	Ringtail is widely distributed throughout most of California, but absent from some portions of the Central Valley and northeastern California. The species is nocturnal, primarily carnivorous and is associated with a mixture of dry forest and shrubland in close association with rocky areas and riparian habitat.	**No Potential.** The Study Area contains very few trees, and is dominated by ruderal vegetation and has been highly disturbed. The surrounding area is highly urbanized and connectivity to suitable habitat is poor.	No further actions are recommended for this species.
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Badgers primarily prey on burrowing rodents.	**Unlikely.** The Study Area is far too small and isolated to support such a wide-ranging species. No evidence of this species' presence or past denning has been recorded despite multiple site visits by WRA. Barriers to dispersal and lack of prey availability likely preclude badger from this site. Additionally, there are no documented occurrences of this species within eight miles of the Study Area (CDFW 2017).	No further actions are recommended for this species.
BIRDS				
Caspian tern *Hydroprogne caspia*	BCC	Summer resident in northern California. Nests colonially on sparsely-vegetated islands (including man-made islands), sandbars and beaches near expanses of open water. Forages on fishes.	**No Potential.** The Study Area does not contain islands, or beaches near open water to support foraging or nesting.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
White-tailed kite *Elanus leucurus*	CFP	Year-long resident of coastal and valley lowlands. Commonly found in savanna, open woodlands, marshes, desert grassland, partially cleared lands, and cultivated fields. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians.	**Moderate Potential.** The Study Area contains open grassland habitats suitable for foraging. Large bushes and trees within the Study Area may also support nesting, although the Study Area is surrounded by development and thus the potential for nesting may be reduced.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.
Northern harrier *Circus cyaneus*	SSC	Nests and forages in grassland habitats, usually in association with coastal salt and freshwater marshes. Nests on the ground in shrubby vegetation, usually at marsh edge. Nests are constructed of mounded sticks, typically quite large, in wet areas. May also occur in alkali desert sinks.	**Moderate Potential.** The Study Area contains open grasslands mixed with seasonal wetlands, which provide foraging habitat for this species. Additionally, this species may nest in dense upland vegetation on the site, although regular mowing may reduce this potential.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.
Ferruginous hawk *Buteo regalis*	BCC	This winter visitor to California frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys and fringes of pinyon-juniper habitats. Preys on lagomorphs, ground squirrels and mice. Population trends may follow lagomorph population cycles.	**Unlikely.** The Study Area provides open grassland winter foraging habitat for the species; however, this species does not nest in northern California.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Swainson's hawk *Buteo swainsoni*	ST, BCC	A California resident, found primarily in the Central Valley and Sierra Nevada foothills. Breeds in stands with few trees in juniper-sage flats, riparian areas, eucalyptus stands and oak savannah. Requires adjacent suitable foraging areas such as grasslands or grain fields supporting rodent populations.	**Unlikely.** Potential nesting trees within the Study Area are small and directly adjacent to development. Also, the Study Area provides only marginal foraging habitat for the species due to its relatively small size and its location surrounded by urban development. The closest documented nesting occurrences are 7.5 miles away (CDFW 2017).	No further actions are recommended for this species.
Golden eagle *Aquila chrysaetos*	CFP, BCC	Resident in rolling foothills mountain areas, sage-juniper flats, desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Unlikely.** The Study Area is within the current year-round range of the species and individuals may occasionally fly over the Study Area. However, the Study Area does not provide large trees or cliffs in large, isolated areas that would typically support nesting.	No further actions are recommended for this species.
Bald eagle *Haliaeetus leucocephalus*	FD, SE, CFP, BCC	Occurs year-round in California, but primarily a winter visitor. Nests in large trees in the vicinity of larger lakes, reservoirs and rivers. Wintering habitat somewhat more variable but usually features large concentrations of waterfowl or fish.	**Unlikely.** This species may occasionally fly over the Study Area but there are no large trees near large lakes or reservoirs in the vicinity to support nesting.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
American peregrine falcon *Falco peregrinus anatum*	FD, SD, CFP	Largely resident in California. Requires protected cliffs, ledges or manmade structures for nesting. Often associated with coasts, bays, marshes and other open expanses of water. Forages widely and preys primarily upon waterbirds.	**Unlikely.** The Study Area and areas immediately adjacent to the Study Area do not provide cliffs, ledges, manmade structures, or other suitable nesting habitat, though this species is known to nest on bridges and structures along the San Francisco Bay and associated waters. The Study Area does not contain foraging habitat typical for the species.	No further actions are recommended for this species.
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP	Extremely secretive resident of emergent marshes in the San Francisco Bay Estuary and portions of the Central Valley. Occurs in salt, brackish and freshwater habitats. Nests in dense stands of emergent vegetation.	**Unlikely.** Wetlands within the Study Area are patchy and isolated from other potential habitat in the region by extensive urban development.	No further actions are recommended for this species.
California Ridgway's (clapper) rail *Rallus obsoletus obsoletus*	FE, SE, CFP	Resident in tidal marshes of the San Francisco Bay Estuary. Requires tidal sloughs and mud flats for foraging, and dense vegetation for nesting. Associated with abundant growth of cordgrass and pickleweed. Largest populations in south San Francisco Bay.	**No Potential.** The Study Area does not contain tidal marsh habitat for the species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Western snowy plover *Charadrius alexandrinus nivosus*	FT, SSC, BCC	Federal listing applies only to the Pacific coastal population. Resident on sandy beaches, salt pond levees and shores of large alkali lakes. Requires sandy, gravelly or friable soils for nesting.	**No Potential.** The Study Area does not contain sandy beaches or other suitable nesting habitat for the species.	No further actions are recommended for this species.
California least tern *Sternula* (formerly *Sterna) antillarum browni*	FE, SE, CFP	Summer resident, nesting colonially along the coast from San Francisco Bay south. Breeding colonies in the San Francisco Bay Estuary found on abandoned salt ponds and estuarine shores. Prefers barren or sparsely vegetated, flat substrates near water. Forages for small surface fish along shores, coasts, etc.	**No Potential.** The Study Area does not contain beach or gravel substrate and therefore does not provide suitable nesting habitat for the species. Additionally, no open water foraging habitat is present in the Study Area for this subspecies.	No further actions are recommended for this species.
Burrowing owl *Athene cunicularia*	SSC, BCC	Found in open, dry annual or perennial grasslands, deserts & scrub lands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Unlikely.** Although the Study Area contains open grassland habitat, no suitably-sized burrows or California ground squirrels, an obligate species, have been identified on the site during WRA site visits. The nearest occurrence for the species is a historic wintering 1.1 miles to the north west (CDFW 2017).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Short-eared owl *Asio flammeus*	SSC	Occurs as a resident and winter visitor in California. Suitable year-round habitat for this species consists of open areas with herbaceous cover, and includes grasslands, prairies, marshes and wetlands, and agricultural areas. Within California, breeding is restricted to the Great Basin, portions of the Central Valley, and scattered other lowland locations (e.g., the northern Sacramento-San Joaquin Delta; Roberson 2008). Nests are placed on the ground within vegetative cover.	**Unlikely.** The Study Area is located west of the current breeding range of the species (Shuford and Gardali 2008) and wetlands within the Study Area are too small to support the demands of nesting. This species may occasionally forage in the area. The nearest documented nest occurrence is from 1987 at Grizzly Island, approximately 13 miles east of the Study Area (CDFW 2017).	No further actions are recommended for this species.
Allen's hummingbird *Selasphorus sasin*	BCC	Summer resident along the California coast, breeding in a variety of woodland and forest habitats, including parks and gardens with abundant nectar sources. Nest in shrubs and trees with dense vegetation.	**Present.** One individual was observed during a WRA survey in March, 2017. This species breeds in Solano County (Rippey et al. 2014); and the Study Area contains dense vegetation to support nesting along its southern perimeter.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Nuttall's woodpecker *Picoides nuttallii*	BCC	Resident in lowland woodlands throughout much of California west of the Sierra Nevada. Typical habitat is dominated by oaks.	**Moderate Potential.** This species is relatively common, even in developed areas, and the southern section of the east parcel and west parcel of Study Area contain oaks and other trees that may contain cavities suitable for nesting.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.
Olive-sided flycatcher *Contopus cooperi*	SSC	Summer resident. Breeds in montane coniferous forests, as well as mixed forests along the coast. Often associated with edge habitats.	**No Potential.** The Study Area does not contain forest habitat for this species. Additionally, the Study Area is outside the current breeding range of the species (Shuford and Gardali 2008).	No further actions are recommended for this species.
Loggerhead shrike *Lanius ludovicianus*	SSC	Resident in open habitats with scattered shrubs, trees, posts, etc. from which to forage for large insects and small vertebrates. Nest is well concealed above ground in a densely-foliaged shrub or tree.	**Moderate Potential.** The Study Area contains suitable foraging habitat for the species, and patches of dense trees and shrubs may be suitable for nesting.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.
Yellow-billed magpie *Pica nuttalli*	BCC	Found in oak savannah with large trees and expanses of open ground. Grasslands, pasture, or cultivated fields are needed for foraging.	**Unlikely.** Although the Study Area contains open grasslands suitable for this species, yellow-billed magpie does not regularly occur in the greater Vallejo area (eBird 2017, Shurford and Gardali 2008).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Bank swallow *Riparia riparia*	ST	Migrant in riparian and other lowland habitats in western California. Nests in riparian areas with vertical cliffs and bands with fine-textured or sandy soils in which to nest.	**Unlikely.** This species occurs irregularly in Solano County as a migrant in spring and fall. The Napa-Solano Audubon Society does not include this species on their list of breeding birds for Solano County (Rippey et al. 2014). No nesting habitat for this species occurs in the Study Area, although this species may occasionally forage within the Study Area during migration.	No further actions are recommended for this species.
Oak titmouse *Baeolophus inornatus*	BCC	Resident in oak woodland, open broad-leaved evergreen forests containing oaks, and riparian woodlands. Nests in tree cavities.	**Moderate Potential.** This species is relatively common, even in developed areas, and the southern section of the east parcel and west parcel of Study Area contain oaks and other trees that may contain cavities suitable for nesting.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.
Saltmarsh (San Francisco) common yellowthroat *Geothlypis trichas sinuosa*	SSC, BCC	Breeding habitat is marshes or similar wet areas with low, dense vegetation. Requires continuous, thick cover down to water for foraging. Less common in dry areas.	**Moderate Potential.** The Study Area contains emergent dense wetland vegetation suitable for foraging and nesting.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Suisun song sparrow *Melospiza melodia maxillaris*	SSC, BCC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.	**No Potential.** The Study Area is outside of this subspecies' known range (Shuford and Gardali 2008).	No further actions are recommended for this species.
San Pablo (=Samuels) song sparrow *Melospiza melodia samuelis*	SSC, BCC	North San Francisco Bay and San Pablo Bay salt marshes. Nests in low marsh vegetation, high enough to avoid flooding during high tides.	**Moderate Potential.** The Study Area contains wetland vegetation that may support foraging and nesting for this subspecies, although it is not the primary salt marsh habitat.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.
Bryant's savannah sparrow *Passerculus sandwichensis alaudinus*	SSC	Resident subspecies, associated with the coastal fog belt. Occupies upper tidally-influenced habitats, often found where pickleweed communities merge into grassland. Nests in vegetation on or near the ground, including along roads, levees, and water conveyance canals.	**Moderate Potential.** The Study Area contains grasslands near wetlands that may support foraging and nesting for this subspecies.	If Project activities commence during the nesting season (February 1 to August 15) a pre-construction nesting bird survey should be conducted.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Tricolored blackbird *Agelaius tricolor*	SSC, BCC	Resident, though disperses somewhat when not breeding. Typically nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs. Highly colonial; breeding aggregations tend to be large.	**Unlikely.** The Study Area is within the breeding range of the species and a historic record from 1987-1988 when a small freshwater marsh existed at the site; however, no perennial aquatic features with deep open water and emergent vegetation for nesting by the species is currently present. Subsequent surveys in 1989, 1997, 2008, 2011, 2014 and 2015 resulted in no observations of the species (CDFW 2017). There is a low potential for this species to utilize the Study Area for foraging.	No further actions are recommended for this species.
Yellow-headed blackbird *Xanthocephalus xanthocephalus*	SSC	Migrant and local summer resident. Nests colonially in freshwater emergent wetlands with dense vegetation and deep water, often along borders of lakes or larger ponds. Forages primarily on large aquatic insects during the breeding period.	**Unlikely.** The Study Area is within the current breeding range of the species; however, this species is a rare breeder in the San Francisco Bay Area and wetlands within the Study Area lack the deep water typically found at breeding sites. This species may occasionally forage in the Study Area outside the breeding season.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Lawrence's goldfinch *Spinus lawrencei*	BCC	Inhabits oak woodlands, chaparral, riparian woodlands, pinyon-juniper associations, and weedy areas near water during breeding season.	**Unlikely.** This species breeds in Solano County (Rippey et al. 2014); however, the Study Area does not contain woodland, chaparral, pinyon-juniper, or other suitable habitat for the species.	No further actions are recommended for this species.
REPTILES AND AMPHIBIANS				
California tiger salamander – central California DPS *Ambystoma californiense*	FT, ST, SSC	Inhabits annual grasslands, spending most of the year underground in mammal burrows. Breeding occurs in vernal pools and other seasonal aquatic features.	**No Potential.** There are no vernal pools or seasonal wetland features that would likely retain sufficient water depths for the 10 weeks required for larvae to metamorphose. Also, no burrows were observed in the Study Area that may serve as refugia, and this species has not been documented within 8 miles of the Study Area (CDFW 2017).	No further actions are recommended for this species.
California giant salamander *Dicamptodon ensatus*	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	**No Potential.** The Study Area does not contain cool permanent or semi-permanent streams that would allow this species to complete its life cycle.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Western pond turtle *Actinemys marmorata*	SSC	Occurs in perennial ponds, lakes, rivers and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs) and submerged shelter. Overwinters in both aquatic and terrestrial habitats. Aquatic refugia consist of rocks, logs, mud, submerged vegetation, and undercut areas along banks. Terrestrial overwintering habitat consists of burrows in leaf litter or soil.	**Unlikely.** The Study Area does not contain suitable open water ponded aquatic habitat for the species. The nearest documented occurrence is 2.5 miles northwest of the Study Area (CDFW 2017); however, dispersal of this species rarely exceeds one mile (Tompson 2016). The land directly adjacent to the Study Area is urbanized and highly trafficked roads present a serious barrier to dispersing turtles.	No further actions are recommended for this species.
Giant garter snake *Thamnophis gigas*	FT, ST, DRP	Endemic to the Central Valley and Sacramento-San Joaquin Delta. Prefers freshwater marsh and low gradient streams with dense emergent vegetation. May also be found in drainage channels and irrigation ditches in agricultural areas. Currently, ranges from Glenn County to the southern edge of the San Francisco Bay Delta, and from Merced County to northern Fresno County, apparently no longer occurring from south of northern Fresno County (Calherps 2013).	**No Potential.** The Study Area is within the year-round range of this species; however, the Study Area does not contain marshes, sloughs, mud-bottom canals, slow moving streams, or other similar aquatic habitat for the species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT, ST	Inhabits chaparral and foothill-hardwood habitats in the eastern Bay Area. Prefers south-facing slopes and ravines with rock outcroppings where shrubs form a vegetative mosaic with oak trees and grasses and small mammal burrows provide basking and refuge.	**No Potential.** This species does not occur in Solano County, and is limited to counties south of the Delta.	No further actions are recommended for this species.
California red-legged frog *Rana draytonii*	FT, SSC	Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Documented to disperse through upland habitats after rains.	**Unlikely.** The Study Area is within the current range of the species and the nearest documented occurrences are approximately 0.7 and 2.3 miles east of the site (CDFW 2017). However, no suitable aquatic breeding habitat is present in the Study Area. At the time of writing this assessment, five out of the eight required protocol-level surveys have been completed by WRA, and CRLF has not been detected. Upon completion of the protocol-level surveys, the survey results will be presented in a standalone report.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Foothill yellow-legged frog *Rana boylii*	SSC	Found in or near rocky streams in a variety of habitats. Feeds on both aquatic and terrestrial invertebrates.	**No Potential.** The Study Area does not contain rocky stream habitat for the species, and the nearest documented occurrence of this species is over 12 miles north of the Study Area (CDFW 2017).	No further actions are recommended for this species.
FISHES				
Green sturgeon *Acipenser medirostris*	FT, SSC, NMFS	Spawn in deep pools or "holes" in large, turbulent, freshwater river mainstems. Adults live in oceanic waters, bays, and estuaries when not spawning. Species is known to forage in estuaries and bays.	**No Potential.** The stream that crosses the southwest corner of the Study Area is routed underground by development, precluding access by this species into the Study Area from its primary habitat in estuary waters.	No further actions are recommended for this species.
Coho salmon, central California coast ESU *Oncorhynchus kisutch*	FE, SE, NMFS	Federal listing includes populations between Punta Gorda and San Lorenzo River. State listing includes populations south of San Francisco Bay only. Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	**No Potential.** The Study Area is located outside the current range of the species and Coho salmon are considered extirpated in San Francisco Bay and associated watersheds.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Steelhead, Central Valley DPS *Oncorhynchus mykiss*	FT, NMFS	Anadromous, spending most of life cycle in the ocean. Occurs in the Sacramento and San Joaquin Rivers and their tributaries, excluding San Francisco and San Pablo bays and their tributaries. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**No Potential.** The stream that crosses the southwest corner of the Study Area is routed underground by development, precluding access by this species into the Study Area.	No further actions are recommended for this species.
Chinook salmon, Central Valley spring-run ESU *Oncorhynchus tshawytscha*	FT, ST, NMFS	Occurs in the Feather River and the Sacramento River and its tributaries, including Butte, Mill, Deer, Antelope and Beegum Creeks. Adults enter the Sacramento River from late March through September. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams from mid-August through early October. Juveniles migrate soon after emergence as young-of-the-year, or remain in freshwater and migrate as yearlings.	**No Potential.** The stream that crosses the southwest corner of the Study Area is routed underground by development, precluding access by this species into the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Chinook salmon, Sacramento River winter-run ESU *Oncorhynchus tshawytscha*	FE, SE, NMFS	Occurs in the Sacramento River below Keswick Dam. Spawns in the Sacramento River but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 degrees C for spawning. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles typically migrate to the ocean soon after emergence from the gravel.	**No Potential.** The stream that crosses the southwest corner of the Study Area is routed underground by development, precluding access by this species into the Study Area.	No further actions are recommended for this species.
Chinook Salmon - Central Valley Fall/Late Fall-run ESU *Oncorhynchus tshawytscha*	SSC, NMFS	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean	**No Potential.** The stream that crosses the southwest corner of the Study Area is routed underground by development, precluding access by this species into the Study Area.	No further actions are recommended for this species.
Delta smelt *Hypomesus transpacificus*	FT, SE	Endemic to the Sacramento Delta, where it is distributed from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano and Yolo counties. The delta smelt is a pelagic and euryhaline species	**No Potential.** No estuarine or other suitable aquatic habitat is present in the Study Area for this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Longfin smelt *Spirinchus thaleichthys*	FC, ST, SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	**No Potential.** No estuarine or other suitable aquatic habitat is present in the Study Area for this species.	No further actions are recommended for this species.
Sacramento splittail *Pogonichthys macrolepidotus*	SSC	Endemic to California's Central Valley. Primarily freshwater fish, but are tolerant of moderate salinity and can survive in water with salinities of 10-18 parts per thousand. Spawn on submerged vegetation in temporarily flooded upland and riparian habitat. Spawning occurs in the lower reaches of rivers, dead-end sloughs and in the larger sloughs. Found in Sacramento-San Joaquin Delta.	**No Potential.** The stream that crosses the southwest corner of the Study Area is routed underground by development, precluding access by this species into the Study Area.	No further actions are recommended for this species.
Tidewater goby *Eucyclogobius newberryi*	FE, SSC	Habitat is characterized by brackish water in shallow lagoons and in lower stream reaches where the water is fairly still but not stagnant. Restricted to waters with low to moderate salinities in California's coastal wetland habitats.	**No Potential.** No coastal wetlands or other suitable aquatic habitat is present in the Study Area for this species. This species is also considered extirpated from the San Francisco Bay area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
INVERTEBRATES				
Callippe silverspot butterfly *Speyeria callippe callippe*	FE	This subspecies is found exclusively within grassy hills surrounding San Francisco Bay that support its native host plant, *Viola pedunculata*. Adults nectar on several native and non-native flowering plants.	**No Potential.** The Study Area is dominated by non-native annual grasses and ruderal vegetation. Botanical surveys of the area did not reveal the presence of *Viola pendunculata* and Callipe silverspot butterflies have not been observed. The nearest known locality to the Study Area is 1.75 miles to the east on Swett Ranch (CDFW 2017).	No further actions are recommended for this species.
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE, SSI	Limited to the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on in rocky outcrops and cliffs in coastal scrub habitat on steep, north-facing slopes within the fog belt. Species range is tied to the distribution of the larval host plant, *Sedum spathulifolium.*	**No Potential.** The nearest documented population of the species is around Mt. Diablo, which is over 20 miles southeast of the Study Area.	No further actions are recommended for this species.
Monarch butterfly *Danaus plexippus*	Roosts protected by CDFW and CCC	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	**Unlikely.** Individuals may occur within the Study Area during periods of migration; however, no roosting habitat is present in or adjacent to the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Western bumble bee	SSI	Once widespread in the western United States and Canada, populations of this insect have drastically declined in recent decades. Pollinates a variety of wild flowering plants and crops.	**Unlikely.** This insect may be occasionally found within the Study Area, however, the Study Area does not contain communities of flowering plants whose removal would constitute a significant loss of habitat for the species.	No further actions are recommended for this species.
California freshwater shrimp *Syncaris pacifica*	FE, SE	Found within the low elevation-low gradient streams in Napa, Sonoma, and Marin Counties. The most suitable reaches are characterized by submerged undercut banks, overhanging plants such as blackberry, woody debris, and the exposed live root systems of willow or alder.	**No Potential.** The Study Area is outside the current known range of the species and there is no suitable shaded stream aquatic habitat present.	No further actions are recommended for this species.
Conservancy fairy shrimp *Branchinecta conservatio*	FE	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**No Potential.** This species has only been documented in the Jepson Prairie area within Solano County (USFWS 2007). This is the closest documented occurrence to the Study Area, and the Study Area does not contain the alluvial pools this species inhabits (CDFW 2017).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**No Potential.** Wetlands within the Study Area are not vernal pools with underlying hardpan soils necessary to support this species.	No further actions are recommended for this species.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**No Potential.** Wetlands within the Study Area are not vernal pools with underlying hardpan soils necessary to support this species.	No further actions are recommended for this species.
California linderiella *Linderiella occidentalis*	SSI	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and TDS.	**No Potential.** Wetlands within the Study Area are not vernal pools with underlying hardpan soils necessary to support this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	Occurs only in the central valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberry two to eight inches in diameter; some preference shown for "stressed" elderberry.	**Unlikely.** Valley elderberry longhorn beetle is dependent on its host plant, *Sambucus mexicana*. Though a single *Sambucus* plant was found within the Study Area, no beetles were observed, and the Study Area is west of this species' documented range (CDFW 2017). Populations of the species are known to occur within 8 miles northeast of the Study Area.	No further actions are recommended for this species.
Delta green ground beetle *Elaphrus viridis*	FT, RP	To date, the delta green ground beetle has only been found in the greater Jepson Prairie area in south-central Solano County, California. The delta green ground beetle lives in areas of grassland interspersed with vernal pools including several larger vernal pools (sometimes called playa pools or vernal lakes). The extent to which the delta green ground beetle also uses the grasslands beyond the less vegetated areas where it is usually seen remains unknown.	**No Potential**. This species has only been found in the greater Jepson Prairie area, which is over 20 miles northeast of the Study Area.	No further actions are recommended for this species.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
FD	Federal Delisted
BCC	USFWS Birds of Conservation Concern
SE	State Endangered
ST	State Threatened
SC	State Candidate
SD	State Delisted
SSC	CDFW Species of Special Concern
SSI	CDFW Special-Status Invertebrate
CFP	CDFW Fully Protected Animal
WBWG	Western Bat Working Group (High or Medium) Priority species
Rank 1B.1	California Native Plant Society (CNPS) Rank 1B.1: Plants rare, threatened, or endangered in California and elsewhere (seriously threatened in California)
Rank 1B.2	California Native Plant Society (CNPS) Rank 1B.2: Plants rare, threatened, or endangered in California and elsewhere (moderately threatened in California)
Rank 2B.1	California Native Plant Society (CNPS) Rank 2B.1: Plants rare, threatened, or endangered in California, but more common elsewhere (seriously threatened in California)
Rank 2B.2	California Native Plant Society (CNPS) Rank 2B.2: Plants rare, threatened, or endangered in California, but more common elsewhere (moderately threatened in California)
Rank 3	CRPR Rank 3: Plants about which CNPS needs more information (a review list)
Rank 3.2	CRPR Rank 3.2: Plants about which CNPS needs more information (a review list; moderately threatened in California)
Rank 4.2	California Rare Plant Rank 4.2: Plants of Limited Distribution - A Watch List (moderately threatened in California)
Rank 4.3	California Rare Plant Rank 4.3: Plants of Limited Distribution - A Watch List (not very threatened in California)

****Potential species occurrence definitions:**

Present. Species was observed on the site during site visits or has been recorded (i.e. CNDDB, other reports) on the site recently.

High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species has a low probability of being found on the site.

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APPENDIX C

SITE PHOTOGRAPHS

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Representative view facing south of the anthropogenic depression sample as SP15 within the west-central portion of the Study Area. Photo taken on May 17, 2017.

Representative view facing south east of seasonal wetland seep within the south east corner of the Study Area. Photo taken on May 3, 2017.

Representative view facing south of coyote brush scrub within the northwestern portion of the Study Area. Photo taken on May 3, 2017.

View facing south of large seasonal wetland swale in the center of the Study Area. Photo taken on May 3, 2017.

View facing west of perennial stream in the southeastern corner of the Study Area. Photo taken on May 3, 2017.

Delineation of Waters of the U.S. Report

FAIRVIEW AT NORTHGATE
VALLEJO, SOLANO COUNTY, CALIFORNIA

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Study Background 1
1.2 Regulatory Background 1
2.0 SUMMARY OF POTENTIAL JURISDICTIONAL AREAS 4
2.1 Waters of the U.S. 4
3.0 METHODS 4
3.1 Potential Section 404 Waters of the U.S. 5
3.1.1 Wetlands 5
3.1.2 Non-wetland Waters 8
3.2 Problem Areas and Difficult Wetland Situations in the Arid West 8
4.0 SITE DESCRIPTION 8
4.1 Location 8
4.2 Vegetation 9
4.3 Soils 10
4.4 Hydrology 13
5.0 RESULTS 14
5.1 Potential Section 404 Waters of the U.S. 14
5.1.1 Wetlands 14
5.1.2 Seasonal Wetland Swale (PEM1) 14
5.1.3 Anthropogenic Depressions 14
5.2 Potential Section 404 Non-wetland Waters 15
5.2.1 Perennial Stream (R2UB) 15
6.0 POTENTIAL JURISDICTIONAL AREAS 15
6.1 Potential Corps Jurisdiction 15
7.0 REFERENCES 16

LIST OF TABLES

Table 1. Summary of Potential CWA Section 404 Jurisdictional Areas. 4

LIST OF FIGURES

Figure 1. Study Area Location Map 2
Figure 2. Study Area Soils Map 11

LIST OF APPENDICES

Appendix A – Preliminary Army Corps of Engineers Section 404 Jurisdiction Map
Appendix B – Arid West Wetland Delineation Data Forms
Appendix C – Representative Photographs of the Study Area
Appendix D – List of All Plant Species Observed within the Study Area

LIST OF ACRONYMS

CFR	Code of Federal Regulations
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
EPA	Environmental Protection Agency
FAC	Facultative plant species
FACU	Facultative Upland plant species
FACW	Facultative Wetland plant species
NL/UPL	Not Listed/Upland plant species
NRCS	National Resources Conservation Service
OBL	Obligate wetland plant species
OHWM	Ordinary High Water Mark
WRA	WRA, Inc.

1.0 INTRODUCTION

1.1 Study Background

On behalf of the Lewis Management Corp., this report presents the results of a delineation of waters of the U.S. ("waters") under Section 404 of the Clean Water Act (CWA) within the proposed Fairview at Northgate Project (Project). The Study Area comprises approximately 52.62 acres in Vallejo, Solano County, California (Figure 1). The Study Area is located approximately 2.50 miles northeast of downtown Vallejo, southeast of the Turner Parkway and Admiral Callaghan Lane intersection.

This report is an update to the original delineation report, prepared in June of 2017. Updates include: (1) modification of the Study Area boundary to include a narrow strip of land east of Admiral Callaghan Lane and removal of the parcel on the west side of Interstate 80;[1] (2) discussion of anthropogenic depressions as potential Waters of the U.S.

1.2 Regulatory Background

Clean Water Act Section 404

Section 404 of the Clean Water Act gives the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) regulatory and permitting authority regarding discharge of dredged or fill material into "navigable waters of the United States". Section 502(7) of the Clean Water Act defines navigable waters as "waters of the United States, including territorial seas." Section 328 of Chapter 33 in the Code of Federal Regulations (CFR) defines the term "waters of the United States" as it applies to the jurisdictional limits of the authority of the Corps under the Clean Water Act. A summary of this definition of "waters of the U.S." in 33 CFR 328.3 includes (1) waters used for commerce; (2) interstate waters and wetlands; (3) "other waters" such as intrastate lakes, rivers, streams, and wetlands; (4) impoundments of waters; (5) tributaries to the above waters; (6) territorial seas; and (7) wetlands adjacent to waters. Therefore, for purposes of the determining Corps jurisdiction under the Clean Water Act, "navigable waters" as defined in the Clean Water Act are the same as "waters of the U.S." defined in the Code of Federal Regulations above.

The limits of Corps jurisdiction under Section 404 as given in 33 CFR Section 328.4 are as follows: (a) *Territorial seas:* 3 nautical miles in a seaward direction from the baseline; (b) *Tidal waters of the U.S.:* high tide line or to the limit of adjacent non-tidal waters; (c) *Non-tidal waters of the U.S.:* ordinary high water mark or to the limit of adjacent wetlands; (d) *Wetlands:* to the limit of the wetland. A discussion of the methods used to delineate wetlands and waters is presented in Section 3.1.

[1] The appendices contain some data that pertains to the parcel west of Interstate 80, such as sample points and plant species observed in this area.

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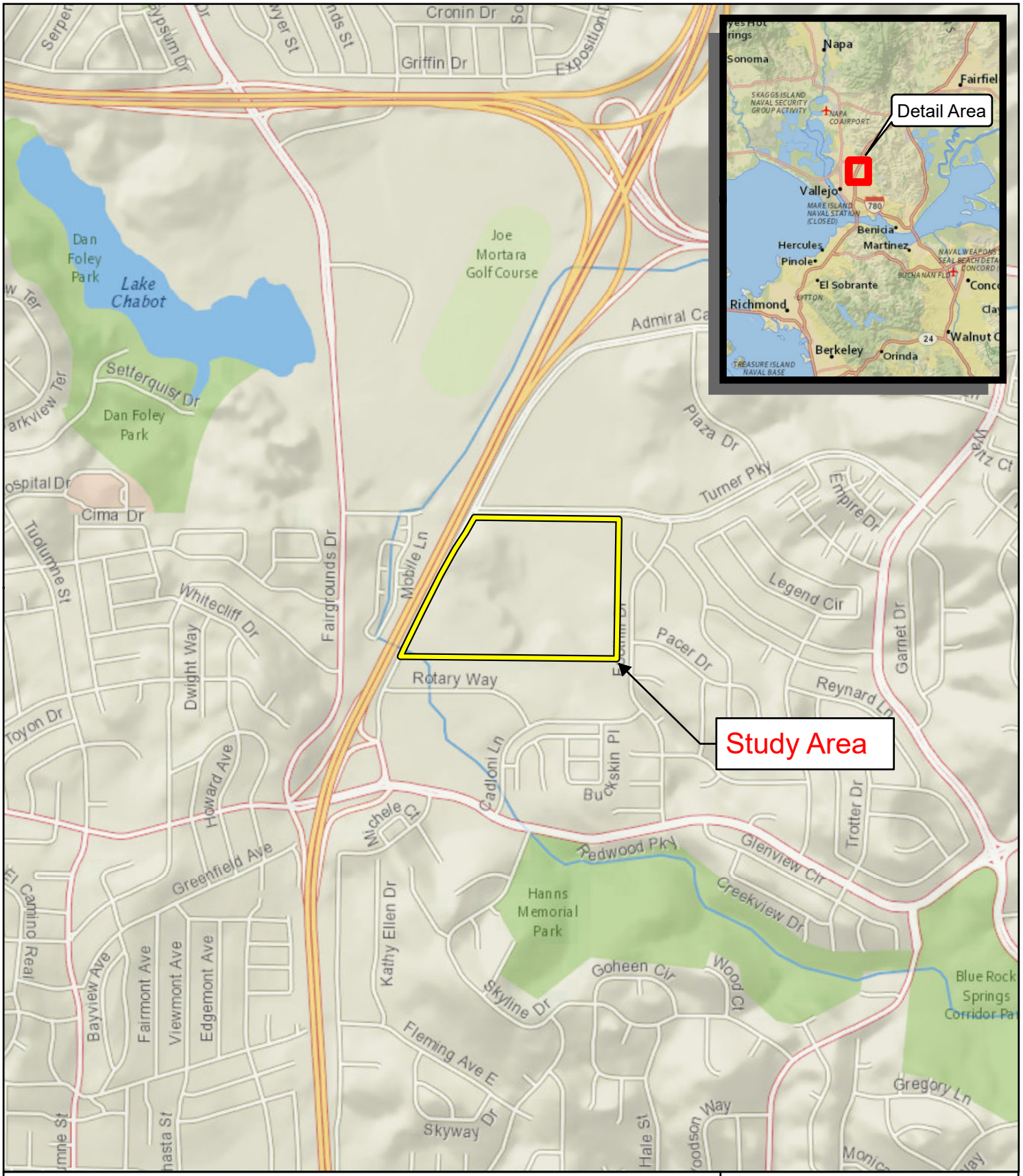

Figure 1. Regional Location Map

Fairview at Northgate
Solano County, California

0 0.2 0.4
Miles

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 1/16/2018
Map Prepared By: czumwalt
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24323-9\GIS\ArcMap\Independent Permit\Fig 1 Location.mxd

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2.0 SUMMARY OF POTENTIAL JURISDICTIONAL AREAS

Areas determined to be jurisdictional under Section 404 of the CWA were delineated based on field surveys conducted by WRA, Inc. (WRA) on May 3 and 17, 2017. The results of the delineation are summarized below.

2.1 Waters of the U.S.

Appendix A depicts the extent of Corps jurisdiction within the Study Area based on the wetland delineation. The acreage and length of potential jurisdictional areas are summarized in Table 1.

Table 1. Summary of Potential CWA Section 404 Jurisdictional Areas.

Feature Type (FGDC 2013)	Potential Jurisdictional Waters of the U.S. (acres/linear feet)
Potential Jurisdictional Section 404 Wetlands	
Seasonal Wetland Swale (PEM1)	5.02
Anthropogenic Depressions	0.08
Potential Jurisdictional Section 404 Non-wetland Waters	
Perennial Stream (R2UB)	0.02/85
TOTAL SECTION 404 JURISDICTIONAL AREAS	**5.12/85**

Within the Study Area, approximately 5.10 acres meet wetland criteria and 0.02 acre (85 linear feet) meet the criteria for non-wetland waters, totaling approximately 5.12 acres (85 linear feet) of potential wetlands and non-wetland waters. All potential wetlands and non-wetland waters delineated within the Study Area are considered to be potential jurisdictional features under CWA Section 404.

3.0 METHODS

Prior to conducting field surveys, available reference materials were reviewed, including soil survey data for the Study Area (CSRL 2017), the U.S. Geological Survey 7.5-minute quadrangle map for Cordelia (USGS 2015), the U.S. Fish and Wildlife Service National Wetland Inventory (USFWS 2017), rainfall data (NOAA 2017), WETS precipitation data (USDA 2017), and available aerial photographs of the site (Google Earth 2017). Following the background data search, WRA biologists performed a focused evaluation of indicators of wetlands and waters at the Study Area on May 3 and 17, 2017.

The methods used in this study to delineate jurisdictional wetlands and non-wetland waters are based on the *U.S. Army Corps of Engineers Wetlands Delineation Manual* ("Corps Manual"; Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* ("Arid West Supplement"; Corps 2008a), and *A Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the United States* ("OHWM Guide;" Corps 2008b). The routine method for wetland delineation described in the Corps Manual was used to identify areas potentially subject to Corps Section 404 jurisdiction within the Study Area.

A general description of the Study Area, including the on-site biological communities, topography, and land use was also generated during site visits. The methods for evaluating the presence of wetlands and non-wetland waters employed during the delineation are described in detail below.

3.1 Potential Section 404 Waters of the U.S.

3.1.1 Wetlands

The Study Area was evaluated for the presence or absence of indicators of the three wetland parameters described in the Corps Manual (Environmental Laboratory 1987) and the Arid West Supplement (Corps 2008a).

Section 328.3 of the Federal Code of Regulations defines wetlands as:

> *"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."*
>
> EPA, 40 CFR 230.3 and CE, 33 CFR 328.3 (b)

The three parameters used to delineate wetlands are the presence of: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. According to the Corps Manual, for areas not considered “problem areas” or “atypical situations”:

> *"....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination."*

Data on vegetation, hydrology, and soils collected at sample points during the delineation site visits were reported on Arid West Supplement data forms. Once an area was determined to be a potential jurisdictional wetland, its boundaries were delineated using GPS equipment and mapped on a topographic map. The areas of potential jurisdictional wetlands were measured digitally using ArcGIS software. Indicators described in the Arid West Supplement were used to make wetland determinations at each sample point in the Study Area and are summarized below.

<u>Vegetation</u>

Plant nomenclature follows the Jepson Flora Project (2017). Plant species identified on the Study Area were assigned a wetland status according to the National Wetland Plant List (Lichvar et al. 2016). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

OBL:	Obligate wetland species	Almost always a hydrophyte, rarely in uplands
FACW:	Facultative Wetland species	Usually a hydrophyte, but occasionally found in uplands
FAC:	Facultative species	Commonly either a hydrophyte or non-hydrophyte
FACU:	Facultative Upland species	Occasionally a hydrophyte, but usually found in uplands
NL/UPL:	Upland/Not Listed species	Rarely a hydrophyte, almost always in uplands

The presence of hydrophytic vegetation was then determined based on indicator tests described in the Arid West Supplement. The Arid West Supplement requires that a three-step process be conducted to determine if hydrophytic vegetation is present. The procedure first requires the delineator to apply the "50/20 rule" (Indicator 1; Dominance Test) described in the manual. To apply the "50/20 rule", dominant species are chosen independently from each stratum of the community. Dominant species are determined for each vegetation stratum from a sampling plot of an appropriate size surrounding the sample point. Dominants are the most abundant species that individually or collectively account for more than 50 percent of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total vegetative cover. If greater than 50 percent of the dominant species has an OBL, FACW, or FAC status, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails Indicator 1 and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation. However, if the sample point fails Indicator 1 but hydric soils and wetland hydrology are both present, the delineator must apply Indicator 2.

Indicator 2 is known as the Prevalence Index. The Prevalence Index is a weighted average of the wetland indicator status for all plant species within the sampling plot. Each indicator status is given a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5). Indicator 2 requires the delineator to estimate the percent cover of each species in every stratum of the community and sum the cover estimates for any species that is present in more than one stratum. The delineator must then organize all species into groups according to their wetland indicator status and calculate the Prevalence Index using the following formula, where A equal's total percent cover:

$$PI = \frac{A_{OBL} + 2A_{FACW} + 3A_{FAC} + 4A_{FACU} + 5A_{UPL}}{A_{OBL} + A_{FACW} + A_{FAC} + A_{FACU} + A_{UPL}}$$

The Prevalence Index will yield a number between 1 and 5. If the Prevalence Index is equal to or less than 3, the sample point meets the hydrophytic vegetation criterion.

Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

> *"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part."*
>
> Federal Register July 13, 1994,
> U.S. Department of Agriculture, NRCS

Soils formed over long periods of time under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. Hydric soils can have a hydrogen sulfide (rotten egg) odor, low chroma matrix color, generally designated 0, 1, or 2, used to identify them as hydric, presence of redox concentrations, gleyed or depleted matrix, or high organic matter content.

Specific indicators that can be used to determine whether a soil is hydric for the purposes of wetland delineation are provided in the NRCS *Field Indicators of Hydric Soils in the U.S.* (USDA 2010). The Arid West Supplement provides a list of 23 of these hydric soil indicators which are known to occur in the Arid West region. Soil samples were collected and described according to the methodology provided in the Arid West Supplement. Soil chroma and values were determined by utilizing a standard Munsell soil color chart (Munsell Color 2009).

Hydric soils were determined to be present if any of the soil samples met one or more of the 23 hydric soil indicators described in the Arid West Supplement.

Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days in the Arid West region). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation, drift deposits, oxidized root channels, and salt crusts, or secondary indicators such as the FAC-neutral test, presence of a shallow aquitard, or crayfish burrows. The Arid West Supplement contains 16 primary hydrology indicators and 10 secondary hydrology indicators. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

The presence or absence of the primary or secondary indicators described in the Arid West Supplement was utilized to determine if sample points within the Study Area met the wetland hydrology criterion.

3.1.2 Non-wetland Waters

This study also evaluated the presence of "waters of the U.S." other than wetlands potentially subject to Corps jurisdiction under Section 404 of the CWA. Other areas, besides wetlands, subject to Corps jurisdiction include lakes, rivers, and streams (including intermittent streams) in addition to all areas below the high tide line in areas subject to tidal influence. Jurisdiction in non-tidal areas extends to the OHWM defined as:

> "*...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*"
>
> Federal Register Vol. 51, No. 219,
> Part 328.3 (e). November 13, 1986

Identification of the ordinary high water mark followed the OHWM Guide (Corps 2008b).

3.2 Problem Areas and Difficult Wetland Situations in the Arid West

The Arid West Supplement (Corps 2008a) includes recommended procedures for completing wetland delineations in areas of "difficult wetland situations." The Corps Manual describes "problem areas," defined as naturally occurring wetland types which periodically lack wetland indicators due to normal seasonal or annual variability.

The list of difficult wetland situations methods provided in the Arid West Supplement includes wetlands with problematic hydrophytic vegetation, problematic hydric soils, and wetlands that periodically lack indicators of wetland hydrology. Although the Corps Manual and Arid West Supplement were utilized in the wetland determination, they do not provide exhaustive lists of the difficult situations and problem areas that can arise during delineations in the Arid West. Thus, it is important to use best professional judgment and knowledge of the ecology of the wetlands in the region during the collection and interpretation of wetland delineation data for problematic sites.

4.0 SITE DESCRIPTION

4.1 Location

The 52.62-acre Study Area, located approximately 2.5 miles northeast of downtown Vallejo, Solano County, California, is southeast of the Turner Parkway and Admiral Callaghan Lane intersection, and east of Interstate 80 (Figure 1). The Study Area is located within a portion of the City of Vallejo that consists primarily of commercial and residential properties. It is bordered to the north by commercial buildings and the Solano County Fairgrounds; to the east by a residential area; to the south by a residential area and a car dealership; and to the west by Admiral Callaghan Lane, Interstate 80, and a residential area.

Based on historic aerial imagery, Interstate 80 was constructed along the western boundary at some time prior to 1948 (NETR 2017). Admiral Callaghan Lane was constructed between 1968

and 1987 (NETR 2017). Blue Rock Springs Creek, which is a small perennial stream and of which a small portion is located within the southwestern corner of the Study Area, was crossed and culverted by Interstate 80 and Admiral Callaghan Lane. South of the Study Area, Blue Rock Springs Creek was culverted by a residential and commercial development complex at some time between 1968 and 1987 (NETR 2017).

The Study Area has been undeveloped since at least 1948 to the present day (Google Earth 2017, NETR 2017). However, the area was used extensively by off-road vehicles which resulted in an extensive network of vehicle paths and tire ruts throughout the Study Area. Although the site is now fenced along the northern edge on Turner Parkway, unauthorized access can still occur on the western edge of the property, and the site is used by people for temporary campsites. In addition, ground disturbance, caused by excavation and other earth-moving activities occurred in the northern portion of the Study Area. As a result of this construction activity, several small depressions were created in the property.

The Study Area consists primarily of low hills that converge at the central portion of the area. Slopes range from flat to steep. Elevations within the Study Area range from approximately 85 to 130 feet above sea level.

4.2 Vegetation

Vegetation within the Study Area was observed to be largely composed of non-native annual species adapted to the disturbed, upland conditions resulting from off-roading activities and other ground disturbance. However, there is also a large swale complex and several small depressions that were characterized by hydrophytic vegetation. These areas also experienced extensive disturbance from off-road vehicle activity. In addition, a small daylighted reach of Blue Rock Springs Creek, a perennial stream, runs east to west in southwestern corner of the Study Area.

Species assemblages throughout the upland portions of the site were primarily non-native annual grassland plant communities; however, small, open patches of coyote brush (*Baccharis pilularis*; NL) scrub were observed on the western slope of the East Area. Wetland plant communities in the Study Area contained a mix of native and non-native annual and perennial species, many of which are typical of disturbed wetland plant communities in the San Francisco Bay Area.

Non-native annual grasslands occupy the majority of the Study Area. This community was located within the drier areas on all aspects. The dominant species observed within this community were Italian rye grass (*Festuca perennis*; FAC*)*, ripgut brome (*Bromus diandrus*; NL), soft chess (*Bromus hordeaceus*; FACU), seaside barely (*Hordeum marinum*; FAC), foxtail barely (*Hordeum murinum*; FACU), and slender oat grass (*Avena barbata*; NL). Indian teasel (*Dipsacus sativus*; NL*),* sweet fennel (*Foeniculum vulgare*; NL), curly dock (*Rumex crispus*; FAC), spring vetch (*Vicia sativa*; FACU), and bristly ox tongue (*Helminthotheca echioides*; FAC) were observed mixed within the stands of annual grasses. Very few native species were observed within the non-native annual grasslands, and they occurred at extremely low cover. Native species observed included narrow leaf mule ears (*Wyethia angustifolia*; FACU) and white brodiaea (*Triteleia hyacinthina*; FAC).

Small stands of coyote brush scrub occur on the western slope of the Study Area. The dominant shrub species is coyote brush, with occasional toyon (*Heteromeles arbutifolia*; NL) and cherry plum (*Prunus cerasifera*; NL). Herbaceous cover is dominated by non-native herbs including soft

chess, Italian rye grass, ripgut brome, foxtail barely, and slender oat grass. In lesser abundance, sweet fennel, purple vetch (*Vicia benghalensis*; NL), short podded mustard (*Hirschfeldia incana*; NL), Mediterranean lineseed (*Bellardia trixago*; NL), purple salsify (*Tragopogon porrifolius*; NL), and spring vetch was observed. Native species were sparse, and included the occasional narrow leaf mule ears and white brodiaea.

A large seasonal wetland swale complex is present at the base of the hills within the Study Area. The swale complex is characterized by hydrophytic vegetation, but as stated above, it has been extensively disturbed by a still-visible network of off-road vehicle pathways and tire ruts. The wettest portions of the swales are generally at the upper ends, near the Study Area boundary, and are dominated by obligate and facultative perennial wetland species, including cattails (*Typha* sp.; OBL), bulrushes (*Bolboschoenus* sp.; OBL), and iris-leaved rush (*Juncus xiphioides*; OBL). Drier portions of the wetland swale are dominated by annual facultative and facultative wetland species, including salt grass (*Distichlis spicata*; FAC), Italian ryegrass, curly dock, rabbit's foot grass (*Polypogon monspeliensis*; FACW), bristly ox-tongue, and creeping wildrye (*Elymus triticoides*; FAC). Occasional red willows (*Salix laevigata*; FACW) are present, particularly along the southern boundary of the Study Area, but the wetlands are generally treeless. Seasonal wetlands swales are discussed in further detail in Section 5.1.

Sparse vegetation is present along the fringes of Blue Rock Springs Creek, including chairmaker's bulrush (*Schoenoplectus americanus*; OBL), cattail, and arroyo willow (*Salix lasiolepis*; FACW), but the feature is generally unvegetated. Above OHWM, the vegetation is dense and dominated by non-native annual species such as wild radish (*Raphanus sativus*; NL), slender wild oats, and bristly ox-tongue.

Excavations and tire ruts were observed in the north-central and western portions of the Study Area where off road activity has been occurring for a number of years. These excavations and tire ruts support hydrophytic vegetation characterized by annual species such as Mediterranean barley, Italian ryegrass, rabbit's foot grass, and waxy mannagrass (*Glyceria declinata*; FACW), though some depressions support perennial species such as iris-leaved rush and cattails.

A list of all plant species observed within the Study Area during the field surveys is provided in Appendix D.

4.3 Soils

The online soil survey of the Study Area (CSRL 2017) indicates that the Study Area has three native soil mapping units, composed of two soil series: Clear Lake clay, 0 to 2 percent slopes, MLRA 17; Dibble Los Osos loams, 2 to 9 percent slopes; and Dibble-Los Osos clay loams, 9 to 30 percent slopes (Figure 2). The soil series that make up these mapping units are described below.

Clear Lake Series. The Clear Lake series consists of very deep, poorly drained soils located on plains and flat basins, which formed in alluvium derived from sandstone and shale. This soil is a very hard, firm, and very sticky clay. It has been directly and indirectly modified by humans through the deepening of natural channels by erosion and by the extensive pumping of water for irrigation and for domestic use. This soil is slowly permeable, and runoff is very slow. Drainage is moderately good. This soil type is listed as hydric in the National List of Hydric Soils (USDA 2017a).

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wra
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Cooke Property
Vallejo

Solano County,
California

Figure 2.

Soils Map

N
W E
S

0 90 180 270
Feet

Map Prepared Date: 1/15/2019
Map Prepared By: czumwalt
Base Source: USGS EROS Ortho 1ft.
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24323-9\GIS\ArcMap\BRA\Fig Soils.mxd

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A representative pedon of the Clear Lake series consists of an A-horizon of a neutral (pH 7.0) dark gray (3/0), when moist, clay from approximately 0 to 13 inches. This is underlain by two Bss-horizons. The first BSS horizon contains a moderately alkaline (pH 8.0), very dark gray (N 3/0) when moist, clay with a clear wavy boundary. This is underlain by a second Bss layer from 13-19 inches of moderately alkaline (pH 8.0), very dark gray (N 3/0) when moist, clay with a diffuse wavy boundary. Beneath this is a Bssk horizon from 45-60 inches containing a moderately alkaline (pH 8.0), light olive brown (2.5Y 5/4) when moist, clay. This horizon is slightly calcareous with few soft lime mases. The Clear Lake Clay mapping unit is typically located on basins and in swales of drainageways (CSRL 2017).

Dibble Series. The Dibble series consists of moderately deep well drained soils that formed in material weathered from shale and sandstone. Dibble soils are on uplands and have slopes of 2 to 75 percent (CSRL 2017).

A representative pedon from the Dibble Series consists of seven horizons: A1, A2, Bat, Bt1, Bt2, BCt, and Cr. The A1 horizon consists of a medium acid (pH 5.8), olive brown (2.5Y 4/4) when moist; silt loam from 0 to 2 inches with an abrupt smooth boundary. This is underlain by a second A horizon (A2) consisting of a medium acid (pH 5.8); brown (10YR 4/3) when moist, light clay loam from 2 to 6 inches. Beneath this, is a BAt horizon from 6 to 9 inches. This horizon consists of a medium acid (pH 5.8), yellowish brown (10YR 5/4) when moist, heavy clay loam. This is underlain by two Bt horizons. The first Bt horizon (Bt1) consists of a medium acid (pH 5.8), yellowish brown (10YR 5/4) when moist, clay from 9 to 17 inches. The second Bt horizon (Bt2) consists of a medium acid (pH 5.8), yellowish brown (10YR 5/4), when moist, heavy clay loam from 17-24 inches. This is underlain by a BCt horizon that consists of a medium acid (pH 5.7), yellowish brown (10YR 5/6) when moist, heavy clay loam from 24-34 inches. The last horizon (Cr) consists of a yellow (10YR 8/8) siltstone from 34-40 inches.

Los Osos Series. The Los Osos series consists of moderately deep, well drained soils on uplands with slopes of 5 to 75 percent. They formed in material weathered from firm to hard sandstone and shale. These soils have very high runoff and slow permeability. A typical profile includes five soil horizons: A, Btss1, Btss2, C, and Cr.

The first horizon from a representative pedon from the Los Osos series consists of an A horizon from 0-14 inches. The A horizon consists of a moderately acid (pH 6.0), very dark grayish brown (10YR 3/2) when moist, loam. This is underlain by two Btss horizons. The first Btss horizon (Btss1) consists of moderately acid (pH 6.0), dark yellowish brown (10YR 4/4) when moist, clay, with a gradual wavy boundary from 14-24 inches. The second Btss horizon (Btss2) consists of a slightly acid (pH 6.5), dark yellowish brown (10YR 4/4) when moist, clay loam from 24-32 inches. This is underlain by a C horizon which consists of a neutral (pH 7.0), light olive brown (2.5Y 5/4) when moist, sandy loam from 32-39 inches. This is underlain by a Cr horizon that consists of brown (10YR 4/3) when moist, sandstone from 39-43 inches.

4.4 Hydrology

All precipitation occurs as rainfall within the Study Area. The water source for the seasonal wetland swale present within the Study Area is primarily runoff from the Study Area and adjacent developed lands, subsurface input, and direct precipitation. Rainwater provides a water source for the entire site during the winter and spring months. However, the seasonal wetland swale along the central portion of the parcel remains inundated and saturated to a much greater degree

than other areas within the parcel, possibly as a result of groundwater seepage, a low position in the landscape, and clayey soils. The seasonal wetland swale complex drains to the north into a culvert outside of the Study Area, though at the time of the May site visits, the swales were not flowing. In the southwest portion of the Study Area, a small daylighted segment of Blue Rock Springs Creek runs through the southwest corner of the Study Area. This perennial creek is supplied by runoff originating offsite.

The annual average rainfall for the Fairfield 5.9 WSW climate station, located northeast of the Study Area, is 23.38 inches, and the average rainfall for the February through April is 9.33 inches (USDA 2017b). A WETS analysis for the Fairfield 5.9 WSW weather station, located northeast of the Study Area, was performed for the 3-month period preceding the site visits, and record levels of precipitation (a total of 18.15 inches) occurred. In February, 9.82 inches of precipitation occurred (above normal), 4.85 inches occurred in March (above normal), and 3.48 inches occurred in April (above normal) (NOAA 2017). The total of 18.15 inches of precipitation that occurred in the 3 months prior to the May 2017 site visits was 195 percent of the average for that period.

5.0 RESULTS

Areas within the Study Area that are potentially jurisdictional under Section 404 of the Clean Water Act are summarized in Table 1 and depicted in Appendix A. Standard Corps Arid West wetland delineation data forms are included in Appendix B. Photographs of representative portions of the Study Area and sample points are presented in Appendix C. A list of all plant species observed during the site visits is included in Appendix D.

5.1 Potential Section 404 Waters of the U.S.

5.1.1 Wetlands

The Study Area contains two wetland categories, as illustrated in Appendix A. All wetlands mapped and presented in this report are likely to be considered jurisdictional by the Corps as they all drain (or would potentially drain) to the San Francisco Bay, a navigable waterway.

5.1.2 Seasonal Wetland Swale (PEM1)

Seasonal wetland swales were sampled at SP01, SP03, SP07, SP09, and SP11; the three wetland criteria were met at all sample points. All sample points met the Dominance Test hydrophytic vegetation indicator and the Redox Dark Surface hydric soil indicator. All sample points met one or more wetland hydrology indicators, including Saturation, Oxidized Rhizospheres Along Living Roots, and Water-Stained Leaves. Seasonal wetland swales in the Study Area met the three wetland criteria and are assumed to drain into receiving waters that are jurisdictional waters of the U.S. and therefore are expected to be considered jurisdictional under Section 404 of the CWA.

5.1.3 Anthropogenic Depressions

As discussed in Section 4.2, excavations and tire ruts exist within the Study Area that were formed by extensive and regular off road vehicle use and other forms of ground disturbance. These depressions were sampled at SP05 and SP15. These depressions are clearly the result of

anthropogenic disturbance, as evidenced by historic aerial imagery (Google Earth 2017, NETR 2017) and still evident tire ruts observed in the field. Both sample points met the Dominance Test hydrophytic vegetation indicator and one or more hydric soil indicators, including Loamy Gleyed Matrix, Redox Dark Surface and Redox Depressions. Both sample points met one or more wetland hydrology indicators, including Surface Water and Saturation, and are assumed to drain into receiving waters that are jurisdictional waters of the U.S. Although the excavations and tire ruts are manmade within otherwise upland areas, Corps personnel indicated during a site visit that the Corps would claim jurisdiction over these features as Waters of the U.S. Therefore, anthropogenic depressions mapped within the Study Area are considered to be jurisdictional under Section 404 of the CWA.

5.2 Potential Section 404 Non-wetland Waters

5.2.1 Perennial Stream (R2UB)

A small daylighted segment of Blue Rock Springs Creek, a perennial stream, is present in the southwestern corner of the Study Area. The stream enters the Study Area from the south via a culvert that runs under an automobile dealership. It then exits the Study Area to the west via a culvert under Admiral Callaghan Lane. Sparse vegetation is present along the fringes of the creek below OHWM, but the feature is generally unvegetated. Indicators of an OHWM are present, including a clear bed and bank. The perennial stream in the Study Area is assumed to drain into receiving waters that are jurisdictional waters of the U.S. and therefore is expected to be considered jurisdictional under Section 404 of the CWA.

6.0 POTENTIAL JURISDICTIONAL AREAS

The conclusions of this report are based on conditions observed at the time of the field delineation conducted May 3 and 17, 2017, and on subsequent input received from the Corps.

6.1 Potential Corps Jurisdiction

Based on the findings of the wetland delineation, the Study Area contains approximately 5.10 acres of potentially jurisdictional wetlands and 0.02 acres (85 linear feet) of potentially jurisdictional non-wetland waters (as summarized in Table 1).

Areas mapped as wetlands were dominated by hydrophytic vegetation, with FAC, FACW and OBL classified plants, and also contained hydric soil and wetland hydrology indicators. Wetlands were distinguished from non-wetland waters by the presence of greater than 5 percent absolute cover of hydrophytic vegetation. The two wetland types delineated within the Study Area are seasonal wetland swale and anthropogenic depressions.

Non-wetland waters were determined based on the presence of an OHWM; the one type of non-wetland waters delineated within the Study Area was perennial stream.

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APPENDIX A -- Preliminary Section 404 Jurisdiction Map

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Potentially Jurisdictional Features	
Seasonal Wetland Swale	**Acres**
W01	5.00
W02	0.02
Anthropogenic Depressions	**Acres**
AD01	0.02
AD02	0.01
AD03	0.00
AD04	0.01
AD05	0.02
AD06	0.01
AD07	0.01
Waters	**Acres/Linear Ft.**
S01	0.02/85
Total	5.12/85

ENVIRONMENTAL CONSULTANTS

Fairview at Northgate

Solano County, California

Figure 2.

Delineation Map

N
W E
S

0 100 200 300
Feet

Map Prepared Date: 5/15/2018
Map Prepared By: czumwalt
Base Source: NAIP 2016
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24323-9\GIS\ArcMap\Independent Permit\Fig 3 Delineation 20170907.mxd

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APPENDIX B -- Arid West Wetland Delineation Data Sheets

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Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP01**

Investigator(s) Scott Batiuk | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Terrace | Local Relief (concave, convex, none) Concave | Slope(%) 0-1

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12747637 | Long: -122.2208919 | Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes | NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Hydric Soil Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Is the Sampled Area within a Wetland? ☒ **Yes** ☐ **No**

Remarks: Wetland Sample Point located within southeast corner of Study Area at base of slope on fringe of large seasonal swale. Sample point does contain hydrophytic vegetation, hydric soil indicatiors, and hydrology indicators. The wetland boundary was determined primarily by a change to hydrophytic vegetation. Sample point paired with Sample Point 02. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size: N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 5' Radius			
1. *Hordeum marinum*	60	Yes	FAC
2. *Festuca perennis*	25	Yes	FAC
3. *Bromus hordeaceus*	10	No	FACU
4. *Vicia sativa*	3	No	FACU
5. *Rumex crispus*	1	No	FAC
6. *Dipsacus sativus*	1	No	NL
7.			
8.			
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM Plot Size: N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 | % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 2 (A)

Total number of dominant species across all strata? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☒ Yes ☐ No

Remarks: The vegetation within the Sample Point passes the dominance test, therefore Hydrophytic vegetation is present within the Sample Point.

SOIL

Sampling Point SP01

Profile description: (Describe to 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[1]	Texture	Remarks
0-14	10YR 3/1	93	7.5YR 4/4	7	C	M,PL	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present ? ☒ **Yes** ☐ **No**

Remarks: The Redox Dark Surface (F6) hydric soil indicator was observed within the Sample Point. Therefore, hydric soils are present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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): 14

Wetland Hydrology Present ? ☒ **Yes** ☐ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: The Oxidized Rhizospheres along Living Roots (C3) and Saturation (A3) hydrology indicators were observed within the Sample Point. Saturation was observed at a depth of 14 inches, and because the Sample Point meets hydrophytic vegetation, hydric soil, and anothe primary wetland hydrology indicator, it is assumed that a water table is present at a depth below 14 inches. Therefore, wetland hydrology is present within Sample Point.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP02**

Investigator(s) David Zwick | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Terrace | Local Relief (concave, convex, none) Convex | Slope(%) 1

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12748728 | Long: -122.2208312 | Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes | NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☒ Yes ☐ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample Point located within south east corner of Study Area within upland terrace. No hydrophytic vegetation or hydric soil indicators were present. However, saturation was present deep within the Sample Point from 10-16 inches. No other hydrology indicators were present. The wetland boundary was determined primarily by a change to hydrophytic vegetation. Sample Point paired with SP01. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size: N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 5' Radius			
1. *Bromus diandrus*	26	Yes	NL
2. *Avena barbata*	17	Yes	NL
3. *Vicia sativa*	15	Yes	FACU
4. *Dipsacus sativus*	15	Yes	NL
5. *Bromus hordeaceus*	10	No	FACU
6. *Geranium dissectum*	7	No	NL
7. *Rumex crispus*	5	No	FAC
8. *Helminthotheca echioides*	3	No	FAC
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM Plot Size: N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 | % 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? 4 (B)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: Sample point is dominated by Bromus diandrus. Additional cover includes 2% Tragopogon porrifolius, NL. Sample Point does not contain hydrophytic vegetation.

SOIL

Sampling Point SP02

Profile description: (Describe to 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[1]	Texture	Remarks
0-4	10YR 2/2	100					Clay	
4-10	10YR 3/2	100					Clay	
10-16	10YR 3/2	100					Clay	Saturation present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: No hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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): 10-16

Wetland Hydrology Present ? ☐ **Yes** ☒ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Saturation was observed from 10-16 inches, but a high water table or restrictive layer were not observed at a depth at or above 16 inches. Therefore, the Sample Point does not meet wetland hydrology indicators. It is possible that a water table is present at a greater depth. If so, the Sample Point would meet the Saturation (F3) wetland hydrology indicator.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP03**

Investigator(s) David Zwick | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Depression | Local Relief (concave, convex, none) Concave | Slope(%) 2

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12918138 | Long: -122.2205738 | Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes | NWI classification R4SBA

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No
Hydric Soil Present? ☒ Yes ☐ No
Wetland Hydrology Present? ☒ Yes ☐ No

Is the Sampled Area within a Wetland? ☒ **Yes** ☐ **No**

Remarks: Sample point is located central eastern portion of the Study Area within a slight depression adjacent a drainage feature. Sample Point is dominated by Hordeum marinum. Hydrophytic vegetation, hydric soil indicators, and wetland hydrology are present within Sample Point. A elevation change is present between Sample Point and surrounding upland areas. SP03 and SP04 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size: N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 5' Radius			
1. *Hordeum marinum*	55	Yes	FAC
2. *Distichlis spicata*	25	Yes	FAC
3. *Rumex crispus*	13	No	FAC
4. *Festuca perennis*	5	No	FAC
5. *Dipsacus sativus*	2	No	NL
6. *Geranium dissectum*	+	No	NL
7.			
8.			
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM Plot Size: N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 | % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 2 (A)

Total number of dominant species across all strata? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%
☐ Prevalence Index is </= 3.0[1]
☐ Morphological adaptations (provide supporting data in remarks)
☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☒ Yes ☐ No

Remarks: Hordeum marinum is dominate within the Sample Point. Sample Point passes the dominance test for hydrophitic vegetation therefore, hydrophitic vegetation is present.

SOIL

Sampling Point SP03

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-9	10YR 2/1	100					Clay	Saturated
9-16	2.5YR 2.5/1	98	5YR 3/1	2	C	M	Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present ? ☒ **Yes** ☐ **No**

Remarks: Soil is comprised of extremely hard clay. Hydric soil indicator Redox Dark Surface (F6) was observed within Sample Point. Therefore, hydric soils are present within Sample Point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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): 2

Wetland Hydrology Present ? ☒ **Yes** ☐ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No water table observed, but assumed to be below 16 inches due to no rain in several weeks. Wetland hydrology indicator Saturation (A3) was observed within Sample point therefore, wetland hydrology is present within Sample Point.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate City Vallejo County Solano Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC State CA Sampling Point **SP04**

Investigator(s) David Zwick & Scott Batiuk Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Hillslope Local Relief (concave, convex, none) Convex Slope(%) 1

Subregion(LRR) LRR C (Medit. CA) Lat: 38.12909212 Long: -122.2206321 Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample Point located on hillside towards the toe of the slope within central eastern portion of the Study Area. Sample Point located on edge of wetland. Sample point does contain hydric soil indicatiors. However, no hydrophytic vegetation or wetland hydrology indicators were observed. SP03 and SP04 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' Radius			
1. *Dipsacus sativus*	60	Yes	NL
2. *Helminthotheca echioides*	10	No	FAC
3. *Triteleia hyacinthina*	9	No	FAC
4. *Geranium dissectum*	7	No	NL
5. *Medicago polymorpha*	6	No	FACU
6. *Vicia sativa*	4	No	FACU
7. *Bromus Hordeaceus*	4	No	FACU
8.			
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM **Plot Size:** N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 % 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? 0 (B)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:	
OBL species	x1	
FACW species	x2	
FAC species	x3	
FACU species	x4	
UPL species	x5	
Column Totals (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: Sample point located within a dense patch of Dipsacus sativus with Helminthotheca echioides and Triteleia hyacinthina mixed in. Sample Point does not contain hydrophytic vegetation.

SOIL

Sampling Point SP04

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-16	10YR 2/1	93	7.5YR 3/4	7	C	m	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☒ **Yes** ☐ **No**

Remarks: Hydric soil indicator Redox Dark Surface (F6) was observed within Sample Point. Therefore, hydric soils are present within Sample Point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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 guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators were observed.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP05**

Investigator(s) David Zwick | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Depression | Local Relief (concave, convex, none) Concave | Slope(%) 0

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12997829 | Long: -122.2221765 | Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes | NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No
Hydric Soil Present? ☒ Yes ☐ No
Wetland Hydrology Present? ☒ Yes ☐ No

Is the Sampled Area within a Wetland? ☒ **Yes** ☐ **No**

Remarks: SP located within depression within central northern portion of the Study Area. Area is dominated by Polypogon monspeliensis. Depression caused by off-road vehicle tire ruts and/or possible excavation. Hydrophytic vegetation, hydric soil indicators, and wetland hydrology are present within Sample Point. SP05 and SP06 are paired. AThe wetland boundary was primarily determined by a break in slope and a change to hydrophytic vegetation. bove normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size: N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 5' Radius			
1. *Polypogon monspeliensis*	77	Yes	FACW
2. *Juncus xiphioides*	20	Yes	OBL
3. *Cyperus eragrostis*	3	No	FACW
4. *Dittrichia graveolens*	3	No	NL
5. *Plantago lanceolata*	2	No	FAC
6. *Rumex crispus*	2	No	FAC
7. *Hordeum marinum*	2	No	FAC
8. *Lythrum hyssopifolia*	1	No	OBL
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM Plot Size: N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 | % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 2 (A)

Total number of dominant species across all strata? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:		Multiply by:	
OBL species		x1	
FACW species		x2	
FAC species		x3	
FACU species		x4	
UPL species		x5	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%
☐ Prevalence Index is </= 3.0[1]
☐ Morphological adaptations (provide supporting data in remarks)
☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☒ Yes ☐ No

Remarks: Sample Point contains a dense mat of Polypogon monspeliensis. The vegetation within the Sample Point passes the dominance test, therefore Hydrophytic vegetations is present within the Sample Point.

SOIL

Sampling Point SP05

Profile description: (Describe to 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[1]	Texture	Remarks
0-10	10YR 3/3	97	2.5YR 3/6	3	C	PL	Clay	Saturated
10-16	10YR 3/2	65	7.5YR 4/4	35	C	M, PL	Clay	Saturated, water table present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present ? ☒ **Yes** ☐ **No**

Remarks: Hydric soil indicators Redox Dark Surface (F6) and Redox Depressions (F8) were observed within Sample Point. Therefore, hydric soils are present within Sample Point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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): 14

Saturation Present? (includes capillary fringe) ☒ Yes ☐ No Depth (inches): 1

Wetland Hydrology Present ? ☒ **Yes** ☐ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Water filled the bottom of the soil pit several minutes after the pit was dug. Sample Point was heavily saturated throughout the profile. Wetland hydrology indicatos Saturation (A3) was observed within Sample point therefore, wetland hydrology is present within Sample Point.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP06**

Investigator(s) Scott Batiuk | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Terrace | Local Relief (concave, convex, none) Convex | Slope(%) 0

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12999002 | Long: -122.2221266 | Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes | NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Upland SP on slight mound with area of significant past disturbance within central northern portion of the Study Area. Sample Point located above depressions formed from tire ruts and excavated areas. Sample point does not contain hydrophytic vegetation, hydric soil indicatiors, or wetland hydrology indicators. The wetland boundary was primarily determined by a break in slope and a change to hydrophytic vegetation. SP05 and SP06 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the visit.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size: N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 5' Radius			
1. *Avena barbata*	35	Yes	NL
2. *Vicia sativa*	15	Yes	FACU
3. *Plantago lanceolata*	5	No	FAC
4. *Vicia benghalensis*	5	No	NL
5. *Festuca perennis*	5	No	FAC
6. *Baccharis pilularis*	4	No	NL
7. *Foeniculum vulgare*	2	No	NL
8. *Medicago polymorpha*	1	No	FACU
Herb Stratum Total Cover:	84		
WOODY VINE STRATUM Plot Size: N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 16 | % 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? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: Other species observed within Sample Point include: Festuca bromoides, Bromus hordeaceus, and Trifolium hirtum. The Sample Point did not pass the dominance test therefore, the Sample Point does not contain hydrophytic vegetation.

SOIL

Sampling Point SP06

Profile description: (Describe to 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[1]	Texture	Remarks
0-6	10YR 3/2	100					Loamy Clay	
6-12	10YR 3/2	98	7.5YR 3/4	2	C	M	Loamy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: No hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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 guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators were observed.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP07**

Investigator(s) David Zwick | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Terrace | Local Relief (concave, convex, none) Concave | Slope(%) 0

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12993961 | Long: -122.223629 | Datum: WGS 84

Soil Map Unit Name Clear Lake clay, 0 to 2 percent slopes, MLRA 17 | NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No
Hydric Soil Present? ☒ Yes ☐ No
Wetland Hydrology Present? ☒ Yes ☐ No

Is the Sampled Area within a Wetland? ☒ **Yes** ☐ **No**

Remarks: Sample Point located on a terrace adjacent a seasonal wetland swale in the northwest corner of the Study Area. Hydrophytic vegetation, hydric soil indicators, and wetland hydrology are present within Sample Point.The wetland boundary was primarily determined by a break in slope and a change to hydrophytic vegetation. SP07 and SP08 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' Radius			
1. *Juncus balticus*	50	Yes	FACW
2. *Festuca perennis*	25	Yes	FAC
3. *Rumex crispus*	15	No	FAC
4. *Geranium dissectum*	10	No	FAC
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM **Plot Size:** N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 | % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 2 (A)

Total number of dominant species across all strata? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%
☐ Prevalence Index is </= 3.0[1]
☐ Morphological adaptations (provide supporting data in remarks)
☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☒ Yes ☐ No

Remarks: The vegetation within the Sample Point passes the dominance test, therefore Hydrophytic vegetations is present within the Sample Point.

SOIL

Sampling Point SP07

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-16	2.5Y 3/1	98	7.5YR 4/6	2	C	M,PL	Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☒ **Yes** ☐ **No**

Remarks: Hydric soil indicator Redox Dark Surface (F6) was observed within Sample Point. Therefore, hydric soils are present within Sample Point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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): 1

Wetland Hydrology Present ? ☒ **Yes** ☐ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No water table observed, but assumed to be below 16 inches due to no rain in several weeks and the fact that the Sample Point meets hydrophytic vegetation and hydric soil indicators. Wetland hydrology indicator Saturation (A3) and Water-Stained Leaves (B9) were observed within Sample point therefore, wetland hydrology is present within Sample Point.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP08**

Investigator(s) David Zwick | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Hillslope | Local Relief (concave, convex, none) Convex | Slope(%) 1

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12995689 | Long: -122.2235541 | Datum: WGS 84

Soil Map Unit Name Clear Lake clay, 0 to 2 percent slopes, MLRA 17 | NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?** ☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No	
Wetland Hydrology Present?	☐ Yes ☒ No	

Remarks: Sample Point is located on a hillside above a pond within the north west corner of the Study Area. Sample point does not contain hydrophytic vegetation, hydric soil indicatiors, or wetland hydrology indicators. The wetland boundary was primarily determined by a break in slope and a change to hydrophytic vegetation. SP07 and SP08 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' Radius			
1. *Bromus diandrus*	40	Yes	NL
2. *Avena barbata*	35	Yes	NL
3. *Tragopogon porrifolius*	10	No	NL
4. *Geranium dissectum*	7	No	FAC
5. *Bromus hordeaceus*	5	No	FACU
6. *Festuca perennis*	1	No	FAC
7. *Dipsacus sativus*	1	No	FAC
8.			
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM **Plot Size:** N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 | % 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? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: The Sample Point did not pass the dominance test therefore, the Sample Point does not contain hydrophytic vegetation.

SOIL

Sampling Point SP08

Profile description: (Describe to 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[1]	Texture	Remarks
0-16	10YR 3/1	19	7.5YR	1	C	M, PL	Loamy Clay	
	10YR 3/2	80						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ Yes ☒ No

Remarks: No hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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 guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators were observed.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP09**

Investigator(s) David Zwick | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Depression | Local Relief (concave, convex, none) Concave | Slope(%) 1

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12859871 | Long: -122.2232962 | Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes | NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No
Hydric Soil Present? ☒ Yes ☐ No
Wetland Hydrology Present? ☒ Yes ☐ No

Is the Sampled Area within a Wetland? ☒ **Yes** ☐ **No**

Remarks: Sample Point is located within a depression at the base of a hill in the west central portion of the Study Area. Hydrophytic vegetation, hydric soil indicators, and wetland hydrology are present within Sample Point. The wetland boundary was primarily determined by a break in slope and a change to hydrophytic vegetation. SP09 and SP10 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' Radius			
1. *Juncus xiphioides*	41	Yes	OBL
2. *Festuca perennis*	25	Yes	FAC
3. *Geranium dissectum*	15	No	FAC
4. *Rumex crispus*	8	No	FAC
5. *Tragopogon porrifolius*	6	No	NL
6. *Bromus hordeaceus*	5	No	FACU
7.			
8.			
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM **Plot Size:** N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 | % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 2 (A)

Total number of dominant species across all strata? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%
☐ Prevalence Index is </= 3.0[1]
☐ Morphological adaptations (provide supporting data in remarks)
☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☒ Yes ☐ No

Remarks: The vegetation within the Sample Point passes the dominance test therefore, Hydrophytic vegetations is present within the Sample Point.

SOIL

Sampling Point SP09

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-16	2.5Y 3/1	96	5YR 3/4	4	C	M	Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☒ **Yes** ☐ **No**

Remarks: Hydric soil indicator Redox Dark Surface (F6) was observed within Sample Point. Therefore, hydric soils are present within Sample Point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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): 1

Wetland Hydrology Present ? ☒ **Yes** ☐ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No water table observed, but assumed to be below 16 inches due to no rain in several weeks and the fact that the Sample Point meets hydrophytic vegetation and hydric soil indicators and another wetland hydrology indicator. Wetland hydrology indicator Saturation (A3) and Water-Stained leaves (B9) were observed within Sample point therefore, wetland hydrology is present within Sample Point.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate City Vallejo County Solano Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC State CA Sampling Point **SP10**

Investigator(s) Scott Batiuk Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Valley/Terrace Local Relief (concave, convex, none) Convex Slope(%) 0-1

Subregion(LRR) LRR C (Medit. CA) Lat: 38.1285895 Long: -122.2233788 Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Upland Sample Point in flat valley bottom at base of slope in central portion of the Study Area. Sample Point adjacent to west of large wetland and is paired with SP 09. Sample point does not contain hydrophytic vegetation, hydric soil indicatiors, or wetland hydrology indicators. The wetland boundary was primarily determined by a break in slope and a change to hydrophytic vegetation. SP09 and SP10 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size: N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 5' Radius			
1. *Bromus hordeaceus*	40	Yes	FACU
2. *Bromus diandrus*	20	Yes	NL
3. *Vicia sativa*	15	No	FACU
4. *Festuca perennis*	10	No	FAC
5. *Avena barbata*	3	No	NL
6. *Hordeum marinum*	2	No	FAC
7. *Geranium dissectum*	1	No	FAC
8.			
Herb Stratum Total Cover:	91		
WOODY VINE STRATUM Plot Size: N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 9 % 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? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:	
OBL species	x1	
FACW species	x2	
FAC species	x3	
FACU species	x4	
UPL species	x5	
Column Totals (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: The Sample Point did not pass the dominance test therefore, the Sample Point does not contain hydrophytic vegetation.

SOIL

Sampling Point SP10

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-16	10YR 3/2	93	7YR 3/4	+	C	M	Clay Loam	
	2.5YR 4/2	7						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: No hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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 guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators were observed.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate | City Vallejo | County Solano | Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC | State CA | Sampling Point **SP11**

Investigator(s) David Zwick | Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Depression/Swale | Local Relief (concave, convex, none) Concave | Slope(%) 1

Subregion(LRR) LRR C (Medit. CA) | Lat: 38.12733992 | Long: -122.2234852 | Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes | NWI classification PEM1Ch

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Hydric Soil Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Is the Sampled Area within a Wetland? ☒ **Yes** ☐ **No**

Remarks: Sample Point located within large swale that, in the vicinity of the sample point, is dominated by cattails. Located in south central portion of the Project Area. Hydrophytic vegetation, hydric soil indicators, and wetland hydrology are present within Sample Point. The wetland boundary was primarily determined by a break in slope and a change to hydrophytic vegetation. SP 11 and SP12 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' Radius			
1. *Typha latifolia*	88	Yes	OBL
2. *Rumex crispus*	6	No	FAC
3. *Helminthotheca echioides*	5	No	FAC
4. *Bromus hordeaceus*	1	No	FACU
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:	100		
WOODY VINE STRATUM **Plot Size:** N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 | % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 1 (A)

Total number of dominant species across all strata? 1 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☒ Yes ☐ No

Remarks: The vegetation within the Sample Point passes the dominance test therefore, Hydrophytic vegetations is present within the Sample Point.

SOIL

Sampling Point SP11

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-16	2.5Y 3/1	98	7.5Y 3/4	2	C	M	Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☒ **Yes** ☐ **No**

Remarks: Hydric soil indicator Redox Dark Surface (F6) was observed within Sample Point. Therefore, hydric soils are present within Sample Point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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): 15

Saturation Present? (includes capillary fringe) ☒ Yes ☐ No Depth (inches): 1

Wetland Hydrology Present ? ☒ **Yes** ☐ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sample Point was heavily saturated throughout the profile. Wetland hydrology indicator Saturation (A3) was observed within Sample point; therefore, wetland hydrology is present within Sample Point.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate City Vallejo County Solano Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC State CA Sampling Point **SP12**

Investigator(s) Scott Batiuk Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Valley Local Relief (concave, convex, none) None Slope(%) 0

Subregion(LRR) LRR C (Medit. CA) Lat: 38.12731638 Long: -122.2234105 Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos loams, 2 to 9 percent slopes NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Upland Sample Point in south central portion of the Project Area. Valley bottom at the base of slope adjacent to cattail-dominated area of a wetland swale. Sample point does not contain hydrophytic vegetation, hydric soil indicatiors, or wetland hydrology indicators. The wetland boundary was primarily determined by a break in slope and a change to hydrophytic vegetation. SP11 and SP12 are paired. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size: N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 5' Radius			
1. *Bromus diandrus*	25	Yes	NL
2. *Geranium dissectum*	25	Yes	FAC
3. *Vicia sativa*	15	No	FACU
4. *Avena barbata*	15	No	NL
5. *Foeniculum vulgare*	7	No	NL
6. *Bromus hordeaceus*	5	No	FACU
7.			
8.			
Herb Stratum Total Cover:	92		
WOODY VINE STRATUM Plot Size: N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 8 % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 1 (A)

Total number of dominant species across all strata? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 50 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:	
OBL species	x1	
FACW species	x2	
FAC species	x3	
FACU species	x4	
UPL species	x5	
Column Totals (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: The Sample Point did not pass the dominance test therefore, the Sample Point does not contain hydrophytic vegetation.

SOIL

Sampling Point SP12

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[1]	Texture	Remarks
0-12	10YR 3/2	100					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: No hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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 guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators were observed.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate City Vallejo County Solano Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC State CA Sampling Point **SP13**

Investigator(s) David Zwick Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Hillslope Local Relief (concave, convex, none) Convex Slope(%) 1

Subregion(LRR) LRR C (Medit. CA) Lat: 38.12692788 Long: -122.2269088 Datum: WGS 84

Soil Map Unit Name Clear Lake clay, 0 to 2 percent slopes, MLRA 17 NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample Point located in a willow thicket on a hillside above a creek in south western portion of the Study Area. Sample point does not contain hydrophytic vegetation, hydric soil indicatiors, or wetland hydrology indicators. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: see below	Absolute % cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	60	Yes	FACW
2.			
3.			
4.			
Tree Stratum Total Cover:	60		
SAPLING/SHRUB STRATUM Plot Size: N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 20' x 10'			
1. *Gallium aparine*	73	Yes	FACU
2. *Rubus armeniacus*	10	No	FAC
3. *Conium maculatum*	7	No	FACW
4.			
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:	90		
WOODY VINE STRATUM Plot Size: see below			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 0 % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 1 (A)

Total number of dominant species across all strata? 2 (B)

% of dominant species that are OBL, FACW, or FAC? 50 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:	
OBL species	x1	
FACW species	x2	
FAC species	x3	
FACU species	x4	
UPL species	x5	
Column Totals (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: Additional cover: 10% basal area of willow stems. The Sample Point encompasses the entirety of the patch of willows. The Sample Point did not pass the dominance test therefore, the Sample Point does not contain hydrophytic vegetation.

SOIL

Sampling Point SP13

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-16	7.5YR 3/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: No hydric soil indicators were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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 guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators were observed.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate City Vallejo County Solano Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC State CA Sampling Point **SP14**

Investigator(s) David Zwick & Scott Batiuk Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) Terrace Local Relief (concave, convex, none) None Slope(%) 0

Subregion(LRR) LRR C (Medit. CA) Lat: 38.13001052 Long: -122.2266153 Datum: WGS 84

Soil Map Unit Name Clear Lake clay, 0 to 2 percent slopes, MLRA 17 NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Upland Sample Point in 1 acre parcel west of I-80. Sample Point in understory of Quercus agrifolia. Repersentative of forested portion of parcel. Sample point does not contain hydrophytic vegetation, hydric soil indicatiors, or wetland hydrology indicators. Above normal rainfall (195% of average) occurred during the 3-month period preceding the site visit.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** 30'x30"	Absolute % cover	Dominant Species?	Indicator Status
1. *Quercus agrifolia*	80	Yes	NL
2.			
3.			
4.			
Tree Stratum Total Cover:	80		
SAPLING/SHRUB STRATUM **Plot Size:** 30"x30"			
1. *Genista monspessulana*	20	Yes	NL
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:	20		
HERB STRATUM **Plot Size:** 30'x30'			
1. *Geranium robertianum*	25	Yes	FACU
2. *Gallium aparine*	1	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:	26		
WOODY VINE STRATUM **Plot Size:** N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 67 % 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)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:		Multiply by:	
OBL species		x1	
FACW species		x2	
FAC species		x3	
FACU species		x4	
UPL species		x5	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is </= 3.0[1]
- ☐ Morphological adaptations (provide supporting data in remarks)
- ☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: Litter comprises 70%of the ground cover. Basal area of stems comprises 7% of ground cover. The Sample Point did not pass the dominance test therefore, the Sample Point does not contain hydrophytic vegetation.

SOIL

Sampling Point SP14

Profile description: (Describe to 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[1]	Texture	Remarks
0-4	10YR 2/2	100					Gravelly Clay	Gravel fill
4-12	10YR 4/6	100					Gravelly Clay	Gravel fill

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: No hydric soil indicators were observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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 guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators were observed.

Wetland Determination Data Form - Arid West Region

Project/Site Fairview at Northgate City Vallejo County Solano Sampling Date 5/3/2017

Applicant/Owner Lewis Acquisition Company, LLC State CA Sampling Point **SP15**

Investigator(s) David Zwick & Scott Batiuk Section,Township,Range S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.) ridgetop Local Relief (concave, convex, none) concave Slope(%) 0

Subregion(LRR) LRR C (Medit. CA) Lat: 38.1290532 Long: -122.2256667 Datum: WGS 84

Soil Map Unit Name Dibble-Los Osos clay loam, 9 to 30 percent slopes NWI classification None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☒ Vegetation ☒ Soil ☒ Hydrology Are "Normal Circumstances" present? ☐ Yes ☒ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Hydric Soil Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Is the Sampled Area within a Wetland? ☒ **Yes** ☐ **No**

Remarks: Wetland SP located in a dirt road depression on the ridgeline near the central-western boundary of the site. The depression appears to be the result of extensive vehicle disturbance, as evidenced by the still prominently visible tire tracks. Based on aerial imagery (Google Earth 2017), vehicle activity was continuous at the SP location since at least 2002 through 2013, after which time it appears to have ceased. Not enough time has passed for the current conditions to be considered normal. Site visit occurred during a period of above normal rainfall.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' Radius			
1. *Glyceria declinata*	20	Yes	FACW
2. *Juncus xiphioides*	5	No	OBL
3. *Typha sp.*	1	No	OBL
4.			
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:	26		
WOODY VINE STRATUM **Plot Size:** N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum 49 % cover of biotic crust 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 1 (A)

Total number of dominant species across all strata? 1 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☒ Yes ☐ No

Remarks: Additional cover: surface water, 25%
The vegetation within the Sample Point passes the dominance test therefore, Hydrophytic vegetations is present within the Sample Point.

SOIL

Sampling Point SP15

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[1]	Texture	Remarks
0-1	GLEY1 3/10Y	100					gravelly clay loam	
1-16	10YR 4/4	100					gravelly clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present ? ☒ **Yes** ☐ **No**

Remarks: Hydric soil indicator Loamy Gleyed Matrix (F2) was observed within Sample Point. Therefore, hydric soils are present within Sample Point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☒ Yes ☐ No Depth (inches): 1-2

Water table present? ☒ Yes ☐ No Depth (inches): 18

Saturation Present? (includes capillary fringe) ☒ Yes ☐ No Depth (inches): 0

Wetland Hydrology Present ? ☒ **Yes** ☐ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Wetland hydrology indicators Surface Water (A1) and Saturation (A3) were observed within Sample point therefore, wetland hydrology is present within Sample Point.

Wetland Determination Data Form - Arid West Region

Project/Site: Fairview at Northgate | City: Vallejo | County: Solano | Sampling Date: 5/3/2017

Applicant/Owner: Lewis Acquisition Company, LLC | State: CA | Sampling Point: **SP16**

Investigator(s): David Zwick & Scott Batiuk | Section,Township,Range: S5 T3N R3W Mount Diablo

Landform (hillslope, terrace, etc.): ridgetop | Local Relief (concave, convex, none): convex | Slope(%): 0-1

Subregion(LRR): LRR C (Medit. CA) | Lat: 38.12906554 | Long: -122.2257175 | Datum: WGS 84

Soil Map Unit Name: Dibble-Los Osos clay loam, 9 to 30 percent slopes | NWI classification: None

Are climatic/hydrologic conditions on-site typical for this time of year? ☐ Yes ☒ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?** ☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No	
Wetland Hydrology Present?	☒ Yes ☐ No	

Remarks: Upland SP located adjacent to a dirt road depression on the ridgeline near the central-western boundary of the site. The depression appears to be the result of extensive vehicle disturbance, as evidenced by the still prominently visible tire tracks. Based on aerial imagery (Google Earth 2017), vehicle activity was continuous at the SP location since at least 2002 through 2013, after which time it appears to have ceased. Not enough time has passed for the current conditions to be considered normal. Site visit occurred during a period of above normal rainfall.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** N/A	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** N/A			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' Radius			
1. *Avena barbata*	25	Yes	NL
2. *Medicago polymorpha*	25	Yes	FACU
3. *Trifolium hirtum*	20	Yes	NL
4. *Bellardia trixago*	15	No	NL
5. *Erodium botrys*	5	No	FACU
6. *Vicia benghalensis*	2	No	NL
7. *Helminthotheca echioides*	1	No	FAC
8. *Hirschfeldia incana*	1	No	NL
Herb Stratum Total Cover:	94		
WOODY VINE STRATUM **Plot Size:** N/A			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 6 | % 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)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is </= 3.0[1]
- ☐ Morphological adaptations (provide supporting data in remarks)
- ☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks:

SOIL **Sampling Point** SP16

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[1]	Texture	Remarks
0-12	10YR 4/2	100					gravelly clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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)
- ☐ 1cm 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]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ Yes ☒ No

Remarks: The sample point location appears to contain fill soil, as evidenced by reddish gravels and occasional cobbles not observed elsewhere within the Project Area. No hydric soil indicators were observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on 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 guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators were observed.

APPENDIX C -- Representative Site Photographs

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Representative view facing south of the anthropogenic depression sample as SP15 within the west-central portion of the Study Area. Photo taken on May 17, 2017.

Representative view facing south east of seasonal wetland seep within the south east corner of the Study Area. Photo taken on May 3, 2017.

Representative view facing south of coyote brush scrub within the northwestern portion of the Study Area. Photo taken on May 3, 2017.

View facing south of large seasonal wetland swale in the center of the Study Area. Photo taken on May 3, 2017.

View facing west of perennial stream in the southeastern corner of the Study Area. Photo taken on May 3, 2017.

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APPENDIX D – List of All Plant Species Observed Within the Study Area

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Appendix D. Plant Species Observed in the Project Area.

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Aizoaceae	*Carpobrotus edulis*	Iceplant	non-native (invasive)	perennial herb	-	High	-
Alliaceae	*Allium amplectens*	Narrow leaved onion	native	perennial herb (bulb)	-	-	-
Anacardiaceae	*Pistacia* sp.	Pistacio	non-native	tree	-	-	-
Anacardiaceae	*Toxicodendron diversilobum*	Poison oak	native	vine, shrub	-	-	FACU
Apiaceae	*Foeniculum vulgare*	Fennel	non-native (invasive)	perennial herb	-	High	-
Araliaceae	*Hedera helix*	English ivy	non-native (invasive)	vine, shrub	-	-	FACU
Asteraceae	*Baccharis pilularis* ssp. *consanguinea*	Coyote brush	native	shrub	-	-	-
Asteraceae	*Calendula arvensis*	Field marigold	non-native	annual herb	-	-	-
Asteraceae	*Centaurea calcitrapa*	Purple star thistle	non-native (invasive)	annual, perennial herb	-	Moderate	-
Asteraceae	*Centaurea solstitialis*	Yellow starthistle	non-native (invasive)	annual herb	-	High	-
Asteraceae	*Cichorium intybus*	Chicory	non-native	perennial herb	-	-	FACU
Asteraceae	*Cirsium vulgare*	Bullthistle	non-native (invasive)	perennial herb	-	Moderate	FACU
Asteraceae	*Cynara cardunculus* ssp. *flavescens*	Cardoon	non-native	perennial herb	-	-	-

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Asteraceae	*Dittrichia graveolens*	Stinkwort	non-native (invasive)	annual herb	-	Moderate	-
Asteraceae	*Helminthotheca echioides*	Bristly ox-tongue	non-native (invasive)	annual, perennial herb	-	Limited	FAC
Asteraceae	*Hypochaeris glabra*	Smooth cats ear	non-native (invasive)	annual herb	-	Limited	-
Asteraceae	*Hypochaeris radicata*	Hairy cats ear	non-native (invasive)	perennial herb	-	Moderate	FACU
Asteraceae	*Lactuca serriola*	Prickly lettuce	non-native (invasive)	annual herb	-	-	FACU
Asteraceae	*Psilocarphus tenellus*	Slender woolly heads	native	annual herb	-	-	OBL
Asteraceae	*Sonchus oleraceus*	Sow thistle	non-native	annual herb	-	-	UPL
Asteraceae	*Symphyotrichum cf. subspicatum*	Douglas aster	native	perennial herb	-	-	FACW
Asteraceae	*Tragopogon porrifolius*	Salsify	non-native	perennial herb	-	-	-
Asteraceae	*Wyethia angustifolia*	Narrow leaved mule ears	native	perennial herb	-	-	FACU
Betulaceae	*Alnus rhombifolia*	White alder	native	tree	-	-	FACW
Brassicaceae	*Brassica nigra*	Black mustard	non-native (invasive)	annual herb	-	Moderate	-
Brassicaceae	*Hirschfeldia incana*	Mustard	non-native (invasive)	perennial herb	-	Moderate	-

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Brassicaceae	*Nasturtium officinale*	Watercress	native	perennial herb (aquatic)	-	-	OBL
Brassicaceae	*Raphanus sativus*	Jointed charlock	non-native (invasive)	annual, biennial herb	-	Limited	-
Cactaceae	*Opuntia* sp.	Prickly pear	non-native	shrub	-	-	-
Caryophyllaceae	*Spergularia rubra*	Purple sand spurry	non-native	annual, perennial herb	-	-	FAC
Chenopodiaceae	*Atriplex prostrata*	Fat-hen	non-native	annual herb	-	-	FACW
Convolvulaceae	*Convolvulus arvensis*	Field bindweed	non-native (invasive)	perennial herb, vine	-	-	-
Crassulaceae	*Crassula aquatica*	Aquatic pygmy weed	native	annual herb	-	-	OBL
Cupressaceae	*Hesperocyparis macrocarpa*	Monterey cypress	native	tree	Rank 1B.2*	-	-
Cyperaceae	*Bolboschoenus* sp.	Bulrush	native	perennial grasslike herb	-	-	OBL
Cyperaceae	*Cyperus eragrostis*	Tall cyperus	native	perennial grasslike herb	-	-	FACW
Cyperaceae	*Eleocharis macrostachya*	Spike rush	native	perennial grasslike herb	-	-	OBL
Cyperaceae	*Schoenoplectus acutus* var. *occidentalis*	Tule	native	perennial grasslike herb	-	-	OBL
Cyperaceae	*Schoenoplectus americanus*	Chairmaker's bulrush	native	perennial grasslike herb	-	-	OBL

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Dipsacaceae	*Dipsacus sativus*	Indian teasel	non-native (invasive)	biennial herb	-	Moderate	-
Fabaceae	*Acmispon americanus* var. *americanus*	Spanish lotus	native	annual herb	-	-	UPL
Fabaceae	*Genista monspessulana*	French broom	non-native (invasive)	shrub	-	High	-
Fabaceae	*Lotus corniculatus*	Bird's foot trefoil	non-native (invasive)	perennial herb	-	-	FAC
Fabaceae	*Lupinus formosus* var. *formosus*	Western lupine	native	perennial herb	-	-	-
Fabaceae	*Medicago polymorpha*	California burclover	non-native (invasive)	annual herb	-	Limited	FACU
Fabaceae	*Melilotus indicus*	Annual yellow sweetclover	non-native	annual herb	-	-	FACU
Fabaceae	*Trifolium dubium*	Shamrock	non-native	annual herb	-	-	UPL
Fabaceae	*Trifolium fragiferum*	Strawberry clover	non-native	perennial herb	-	-	FAC
Fabaceae	*Trifolium fucatum*	Bull clover	native	annual herb	-	-	FACU
Fabaceae	*Trifolium hirtum*	Rose clover	non-native (invasive)	annual herb	-	Limited	-
Fabaceae	*Vicia benghalensis*	Purple vetch	non-native	annual herb, vine	-	-	-
Fabaceae	*Vicia sativa*	Spring vetch	non-native	annual herb, vine	-	-	FACU

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Fabaceae	*Vicia villosa*	Hairy vetch	non-native (invasive)	annual herb, vine	-	-	-
Fagaceae	*Quercus agrifolia* var. *agrifolia*	Coast live oak	native	tree	-	-	-
Fagaceae	*Quercus ilex*	Holly oak	non-native	tree	-	-	-
Geraniaceae	*Erodium botrys*	Big heron bill	non-native (invasive)	annual herb	-	-	FACU
Geraniaceae	*Erodium cicutarium*	Coastal heron's bill	non-native (invasive)	annual herb	-	Limited	-
Geraniaceae	*Geranium dissectum*	Wild geranium	non-native (invasive)	annual herb	-	Limited	-
Geraniaceae	*Geranium robertianum*	Robert's geranium	non-native (invasive)	annual herb	-	-	FACU
Iridaceae	*cf. Chasmanthe* sp.	African corn flag	non-native	perennial herb	-	-	-
Iridaceae	*Iris* sp.	Ornamental iris	non-native	perennial herb	-	-	-
Iridaceae	*Sisyrinchium bellum*	Blue eyed grass	native	perennial herb	-	-	FACW
Juglandaceae	*Juglans hindsii*	Northern california black walnut	native	tree	Rank 1B.1*	-	FAC
Juncaceae	*Juncus balticus* ssp. *ater*	Baltic rush	native	perennial grasslike herb	-	-	FACW
Juncaceae	*Juncus bufonius*	Common toad rush	native	annual grasslike herb	-	-	FACW

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Juncaceae	*Juncus tenuis*	Slender rush	native	perennial grasslike herb	-	-	FACW
Juncaceae	*Juncus xiphioides*	Iris leaved rush	native	perennial grasslike herb	-	-	OBL
Lamiaceae	*Stachys albens*	Cobwebby hedge nettle	native	perennial herb	-	-	OBL
Lythraceae	*Lythrum hyssopifolia*	Hyssop loosestrife	non-native	annual, perennial herb	-	-	OBL
Malvaceae	*Malva* sp.	Mallow	non-native	annual herb	-	-	-
Moraceae	*Ficus carica*	Common fig	non-native (invasive)	tree	-	Moderate	FACU
Myrsinaceae	*Lysimachia arvensis*	Scarlet pimpernel	non-native	annual herb	-	-	FAC
Myrtaceae	*Eucalyptus globulus*	Blue gum	non-native (invasive)	tree	-	Limited	-
Oleaceae	*Ligustrum* sp.	Privet	non-native	tree, shrub	-	-	-
Oleaceae	*Olea europaea*	Olive	non-native (invasive)	tree, shrub	-	Limited	-
Onagraceae	*Epilobium brachycarpum*	Willow herb	native	annual herb	-	-	-
Onagraceae	*Epilobium ciliatum*	Slender willow herb	native	perennial herb	-	-	FACW
Onagraceae	*Taraxia ovata*	Sun cup	native	perennial herb	-	-	-
Orobanchaceae	*Bellardia trixago*	Mediterranean lineseed	non-native (invasive)	annual herb	-	Limited	-

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Orobanchaceae	*Parentucellia viscosa*	Yellow parentucellia	non-native (invasive)	annual herb	-	Limited	FAC
Papaveraceae	*Eschscholzia californica*	California poppy	native	annual, perennial herb	-	-	-
Pinaceae	*Pinus* sp.	Pine	non-native	evergreen tree	-	-	-
Plantaginaceae	*Kickxia spuria*	Fluellin	non-native	perennial herb	-	-	-
Plantaginaceae	*Plantago lanceolata*	Ribwort	non-native (invasive)	perennial herb	-	Limited	FAC
Platanaceae	*Platanus ×hispanica*	London plane tree	non-native	deciduous tree	-	-	-
Poaceae	*Avena barbata*	Slim oat	non-native (invasive)	annual, perennial grass	-	Moderate	-
Poaceae	*Avena fatua*	Wildoats	non-native (invasive)	annual grass	-	Moderate	-
Poaceae	*Briza minor*	Little rattlesnake grass	non-native	annual grass	-	-	FAC
Poaceae	*Bromus catharticus*	Rescue grass	non-native	annual, perennial grass	-	-	-
Poaceae	*Bromus diandrus*	Ripgut brome	non-native (invasive)	annual grass	-	Moderate	-
Poaceae	*Bromus hordeaceus*	Soft chess	non-native (invasive)	annual grass	-	Limited	FACU
Poaceae	*Cortaderia selloana*	Pampas grass	non-native (invasive)	perennial grass	-	High	FACU

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Poaceae	*Crypsis schoenoides*	Swamp grass	non-native	annual grass	-	-	FACW
Poaceae	*Distichlis spicata*	Salt grass	native	perennial grass	-	-	FAC
Poaceae	*Elymus caput-medusae*	Medusa head	non-native	annual grass	-	-	-
Poaceae	*Elymus triticoides*	Beardless wild rye	native	perennial grass	-	-	FAC
Poaceae	*Festuca bromoides*	Brome fescue	non-native	annual grass	-	-	FACU
Poaceae	*Festuca myuros*	Rattail sixweeks grass	non-native (invasive)	annual grass	-	-	FACU
Poaceae	*Festuca perennis*	Italian rye grass	non-native	annual, perennial grass	-	-	FAC
Poaceae	*Glyceria declinata*	Waxy mannagrass	non-native (invasive)	perennial grass	-	Moderate	FACW
Poaceae	*Holcus lanatus*	Common velvetgrass	non-native (invasive)	perennial grass	-	Moderate	FAC
Poaceae	*Hordeum brachyantherum*	Meadow barley	native	perennial grass	-	-	FACW
Poaceae	*Hordeum marinum* ssp. *gussoneanum*	Barley	non-native (invasive)	annual grass	-	Moderate	FAC
Poaceae	*Hordeum murinum*	Foxtail barley	non-native (invasive)	annual grass	-	Moderate	FACU
Poaceae	*Paspalum dilatatum*	Dallis grass	non-native	perennial grass	-	-	FAC
Poaceae	*Phalaris aquatica*	Harding grass	non-native (invasive)	perennial grass	-	Moderate	FACU

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Poaceae	*Phalaris paradoxa*	Hood canarygrass	non-native	annual grass	-	-	FAC
Poaceae	*Polypogon monspeliensis*	Annual beard grass	non-native (invasive)	annual grass	-	Limited	FACW
Polygonaceae	*Rumex acetosella*	Sheep sorrel	non-native (invasive)	perennial herb	-	Moderate	FACU
Polygonaceae	*Rumex crispus*	Curly dock	non-native (invasive)	perennial herb	-	Limited	FAC
Polygonaceae	*Rumex pulcher*	Fiddleleaf dock	non-native	perennial herb	-	-	FAC
Rhamnaceae	*Rhamnus alaternus*	Italian buckthorn	non-native	shrub	-	-	FACU
Rosaceae	*Cotoneaster pannosus*	Woolly cotoneaster	non-native (invasive)	shrub	-	Moderate	-
Rosaceae	*Fragaria vesca*	Wild strawberry	native	perennial herb	-	-	UPL
Rosaceae	*Heteromeles arbutifolia*	Toyon	native	shrub	-	-	-
Rosaceae	*Prunus cerasifera*	Cherry plum	non-native (invasive)	tree	-	Limited	-
Rosaceae	*Prunus dulcis*	Almond	non-native	tree	-	-	-
Rosaceae	*Prunus persica*	Peach	non-native	tree	-	-	-
Rosaceae	*Pyracantha* sp.	Firethorn	non-native	shrub	-	-	-
Rosaceae	*Pyrus* sp.	Pear	non-native	tree	-	-	-
Rosaceae	*Rubus armeniacus*	Himalayan blackberry	non-native (invasive)	shrub	-	High	FAC
Rubiaceae	*Galium aparine*	Cleavers	native	annual herb	-	-	FACU

Family	Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Salicaceae	*Salix gooddingii*	Gooding's willow	native	tree	-	-	FACW
Salicaceae	*Salix laevigata*	Red willow	native	tree	-	-	FACW
Salicaceae	*Salix lasiolepis*	Arroyo willow	native	shrub, tree			FACW
Tamaricaceae	*Tamarix* sp.	Tamarisk	non-native	shrub, tree	-	High	-
Themidaceae	*Triteleia hyacinthina*	Wild hyacinth	native	perennial herb	-	-	FAC
Typhaceae	*Typha* sp.	Cattail	unknown	perennial herb	-	-	OBL
Ulmaceae	*Ulmus* sp.	Elm	non-native	tree	-	-	-
Vitaceae	*Vitis vinifera*	Cultivated grape	non-native	vine, shrub	-	-	-

- All species identified using the *Jepson eFlora* [Jepson Flora Project (eds.) 2017]; nomenclature follows *Jepson eFlora* [Jepson Flora Project (eds.) 2017]

*Special-status only in its native range. The Project Area is outside of the native range of this species

[1]Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2017)

FE:	Federal Endangered
FT:	Federal Threatened
SE:	State Endangered
ST:	State Threatened
SR:	State Rare
Rank 1A:	Plants presumed extinct in California
Rank 1B:	Plants rare, threatened, or endangered in California and elsewhere. Generally regarded as special-status in native stands only.
Rank 2:	Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3:	Plants about which we need more information – a review list
Rank 4:	Plants of limited distribution – a watch list

[2]Invasive Status: California Invasive Plant Inventory (Cal-IPC 2017)

High:	Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.
Moderate:	Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited-moderate distribution ecologically
Limited:	Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically
Assessed:	Assessed by Cal-IPC and determined to not be an existing current threat

[3]Wetland Status: National List of Plant Species that Occur in Wetlands, California – Arid West (Lichvar et al. 2016)

OBL:	Almost always found in wetlands; >99% frequency
FACW:	Usually found in wetlands; 67-99% frequency
FAC:	Equally found in wetlands and uplands; 34-66% frequency
FACU:	Usually not found in wetlands; 1-33% frequency
UPL:	Almost never found in wetlands; >1% frequency

NL:	Not listed, assumed almost never found in wetlands; >1% frequency
NI:	No information; not factored during wetland delineation

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94103-1398

JULY 25, 2018

Regulatory Division

Subject: File No. SPN-2016-00350

Dr. Mike Josselyn
WRA, Inc.
2169-G East San Francisco Blvd.
San Rafael, CA 94901

Dear Dr. Josselyn:

This correspondence is in reference to your submittal of June 12, 2018, on behalf of Vallejo-Fairview Developers, LLC, requesting a preliminary jurisdictional determination of the extent of navigable waters of the United States (U.S.) and waters of the U.S. occurring on an approximately 52.62-acre project area located within a commercially and residentially developed area, in the City of Vallejo, Solano County, California (38.12892°N, 122.223265°W)

All proposed discharges of dredged or fill material occurring below the plane of ordinary high water in non-tidal waters of the U.S.; or below the high tide line in tidal waters of the U.S.; or within the lateral extent of wetlands adjacent to these waters, typically require Department of the Army authorization and the issuance of a permit under Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 *et seq*.). Waters of the U.S. generally include the territorial seas; all traditional navigable waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters subject to the ebb and flow of the tide; wetlands adjacent to traditional navigable waters; non-navigable tributaries of traditional navigable waters that are relatively permanent, where the tributaries typically flow year-round or have continuous flow at least seasonally; and wetlands directly abutting such tributaries. Where a case-specific analysis determines the existence of a "significant nexus" effect with a traditional navigable water, waters of the U.S. may also include non-navigable tributaries that are not relatively permanent; wetlands adjacent to non-navigable tributaries that are not relatively permanent; wetlands adjacent to but not directly abutting a relatively permanent non-navigable tributary; and certain ephemeral streams in the arid West.

The enclosed delineation map titled “Preliminary Jurisdictional Determination, Pursuant to Section 404 Clean Water Act Fairview at Northgate Vallejo, Solano, California,” in one sheet date certified June 13, 2018, depicts the extent and location of wetlands and other waters of the U.S. within the boundary area of the site that **may be** subject to U.S. Army Corps of Engineers' regulatory authority under Section 404 of the Clean Water Act. This preliminary jurisdictional determination is based on the current conditions of the site, as verified during a field investigation of August 11, 2017, and a review of other data included in your submittal. While this preliminary jurisdictional determination was conducted pursuant to Regulatory Guidance Letter No. 16-01, *Jurisdictional Determinations*, it may be subject to future revision if new

information or a change in field conditions becomes subsequently apparent. The basis for this preliminary jurisdictional determination is fully explained in the enclosed *Preliminary Jurisdictional Determination Form* which has been signed and dated by you and this office.

You are advised that the preliminary jurisdictional determination may **not** be appealed through the U.S. Army Corps of Engineers' *Administrative Appeal Process*, as described in 33 C.F.R. § 331 (65 Fed. Reg. 16,486; Mar. 28, 2000). Under the provisions of 33 C.F.R § 331.5(b)(9), non-appealable actions include preliminary jurisdictional determinations since they are considered to be only advisory in nature and make no definitive conclusions on the jurisdictional status of the water bodies in question. However, you may request this office to provide an approved jurisdictional determination that precisely identifies the scope of jurisdictional waters on the site; an approved jurisdictional determination may be appealed through the *Administrative Appeal Process*. If you anticipate requesting an approved jurisdictional determination at some future date, you are advised not to engage in any on-site grading or other construction activity in the interim to avoid potential violations and penalties under Section 404 of the Clean Water Act. Finally, you may provide this office new information for further consideration and request a reevaluation of this preliminary jurisdictional determination.

You may refer any questions on this matter to William M. Connor of my Regulatory staff by telephone at 415-503-6631 or by e-mail at william.m.connor@usace.army.mil. All correspondence should be addressed to the Regulatory Division, North Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: http://www.spn.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

CONNOR.WILLIAM.MATTHEW.III.1149355045
2018.07.25 15:05:09 -07'00'

Rick M. Bottoms, Ph.D.
Chief, Regulatory Division

Enclosures

cc (w/ encls):
Vallejo-Fairview Developers, LLC, Jeb Elmore, jeb.elmore@lewismc.com
CA RWQCB, Agnes Fares, Agnes.Farres@waterboards.ca.gov

Potentially Jurisdictional Features	
Seasonal Wetland Swale	**Acres**
W01	5.00
W02	0.02
Anthropogenic Depressions	**Acres**
AD01	0.02
AD02	0.01
AD03	0.00
AD04	0.01
AD05	0.02
AD06	0.01
AD07	0.01
Waters	**Acres/Linear Ft.**
S01	0.02/85
Total	5.12/85

38.130565, -122.225126

38.13053, -122.220206

38.126819, -122.220278

38.126904, -122.227277

AD01 AD02 AD03 AD04 AD05 AD06 AD07

SP01 SP02 SP03 SP04 SP05 SP06 SP07 SP08 SP09 SP10 SP11 SP12 SP13 SP15 SP16

W01 W02 S01

Project Area (52.62 acres)

Control Point

Sample Point

Seasonal Wetland

Anthropogenic Depression

Perennial Stream

Preliminary Jurisdictional Determination,
Pursuant to Section 404 Clean Water Act

U.S. Army Corps of Engineers
San Francisco District
Regulatory Division

Fairview at Northgate
Vallejo, Solano, California

(APN: 0052-32-0250, 0069-37-1770, & 0081-49-0010)

Study Area Boundary

Accurate as depicted in legend

File ID. **2016-00350** Date: **June 13, 2018** 1 Sheet

wra
ENVIRONMENTAL CONSULTANTS

Fairview at Northgate

Solano County, California

Delineation of Waters of the U.S.

N W E S

0 100 200 300

Feet

Map Prepared Date: 5/15/2018
Map Prepared By: czumwalt
Base Source: NAIP 2016
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24323-9\GIS\ArcMap\Independent Permit\Fig 3 Delineation 20170907.mxd

Appendix E

Cultural Resources Report

DETERMINATION OF ELIGIBILITY AND EFFECT

FOR THE FAIRVIEW AT NORTHGATE PROJECT

CITY OF VALLEJO

SOLANO COUNTY CALIFORNIA

Prepared by

Melinda A. Peak
Peak & Associates, Inc.
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95762
(916) 939-2405

Prepared for

Lewis Management Corp.
9216 Kiefer Blvd.
Sacramento, CA 95826
Contact: Jeb Elmore

September 2017
(Revised January 3, 2019)
(Job #17-056)

INTRODUCTION

The Study Area lies on the east side of Interstate 80, 2.5 miles northeast of downtown Vallejo, southeast of the intersection of Admiral Callaghan Lane and Turner Parkway. The Study Area lies in the southwest quarter of section 5 and northwest quarter of section 8, Township 3 North Range 3 West on the Cordelia 7.5-minute USGS topographic quadrangle (Figures 1, 2 and 3). The excavation depth for the project will be in the 5-10 feet range on the eastern side of the property and as much as 20 feet on the western side.

The following description of the Fairview at Northgate project description has been written in contemplation of the City adoption of its general plan update prior to public hearings for this project.

I. REQUESTED ENTITLEMENTS:

1. A Tentative Subdivision Map (see attached exhibit) to divide the property into:
   a) 187 residential lots and common area encompassing 22.6 acres
   b) One (1) 0.25-acre park parcel in combination with a 0.25 acres C3 basin
   c) Five (5) commercial parcels
   d) One (1) central corridor open space parcel of 5.1 acres

2. A Planned Development Master Plan and Unit Plan (PDMP) to permit development of the 187 lot Small Lot Subdivision. See the "Further Detailing" section below for further information with respect to the residential subdivision. Major Conditional Use Permits for:
   a) a 15 pump/30 stall gasoline service station; and,
   b) a pad building with a drive through window.

II. PROJECT DESCRIPTION

The development will include a mixture of commercial, residential and open space uses.

The Commercial uses will accommodate approximately 180,000 square feet of building area. The commercial area will be developed into five buildings plus the gasoline service station with a related 50-square foot kiosk. The largest building will be approximately 153,000 square feet in area located on parcel of 16.7 acres. Parking will be accommodated for this portion of the Commercial project by providing a total of 774 parking stalls, of which 16 will be reserved for handicap accessible parking. Potential use for the largest building is a warehouse/distribution retail store. The north end of the site will be developed into four buildings ranging in size from 3,000 square feet to 9,400 square feet on a site approximately 3.6 acres in size. Parking will be accommodated for this portion of the Commercial project by providing a total of 156 parking stalls, of which 8 will be reserved for handicap accessible parking. Potential uses for the four buildings are general neighborhood services such as restaurants, health and fitness clubs, medical clinics, pharmacies, salons, laundry, clothing, convenience stores and other related services.

Fairview At Northgate Project
Vicinity Map
Study Area
True North
Google earth
Solano Bikeway
Fairgrounds Dr
Plaza Dr
Turner Pkwy
Chantilly Ct
Legend Cir
Sterling St
Pacer Dr
Clydesdale Dr
Doncaster Dr
Foothill Dr
Dapple Dr
Oro Ct
Glenview Cir
Treekview Dr
Trotter Dr
Rotary Way
Cadloni Ln
Newell St
Mobile Ln
Emerald Cir
Sereno Dr
Dwight Way
Howard Ave
Moorland St
Admiral Callaghan Ln
Pajaro Way
Edgemont Ave
Fleming Ave
Carl Ave
Skyline Dr
Wood Ct
Goheen Cir
80

Figure 1

PROJECT SUMMARY:

LAND USE:
RESIDENTIAL - 24.2± AC
COMMERCIAL - 21.8± AC
OPEN SPACE - 5.3± AC
TOTAL - 51.3± AC

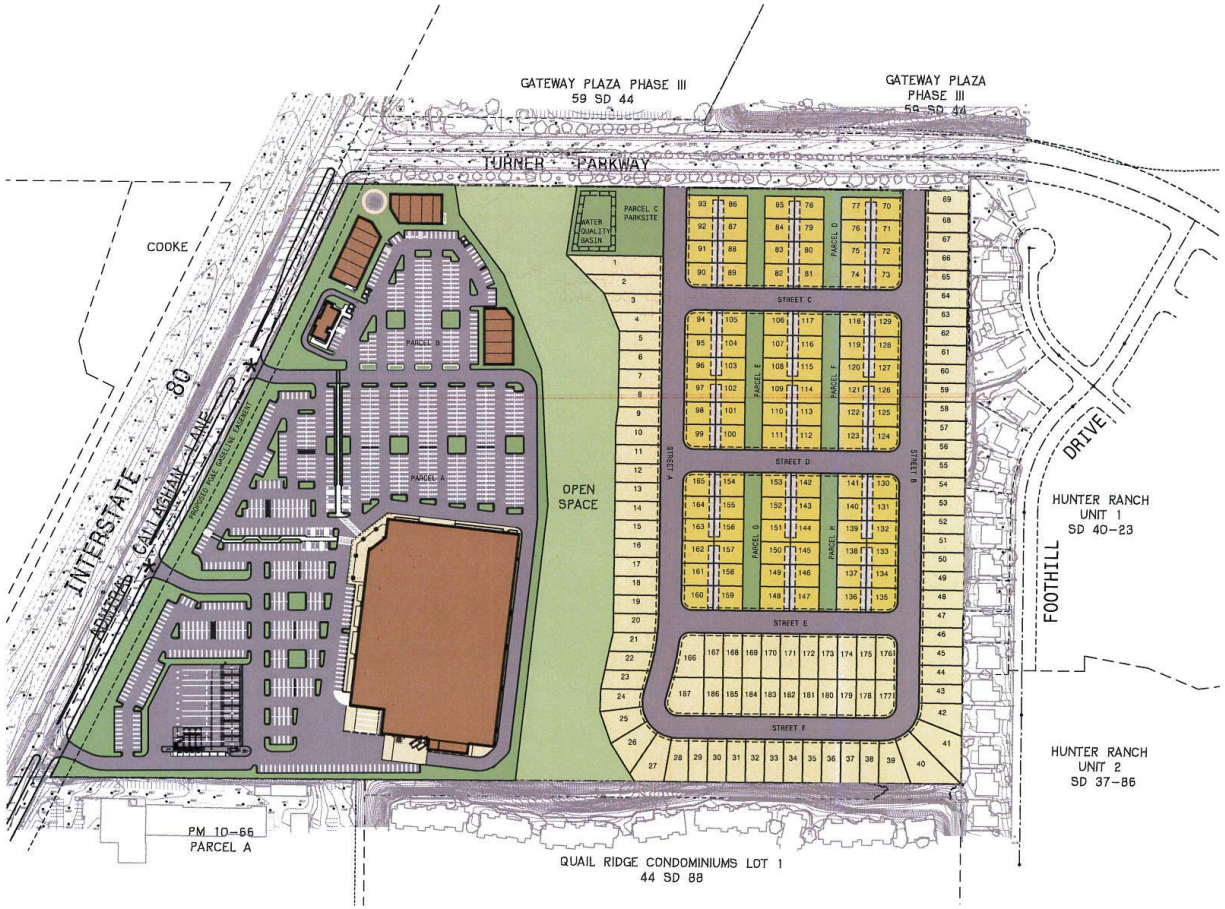
RESIDENTIAL SUMMARY:

LOT COUNT:
91 - 42'X85' LOTS
96 - CLUSTER LOTS

COMMERCIAL SUMMARY:

MAJOR RETAILER: 152,138± SF
SHOPS & RETAIL: 27,490± SF

* SIGNALIZED INTERSECTION



NORTH
0 50 100 200
SCALE: 1"=100'

OVERALL SITE PLAN
FAIRVIEW at NORTHGATE
Vallejo, California

C.1
AUGUST 2017

Figure 2

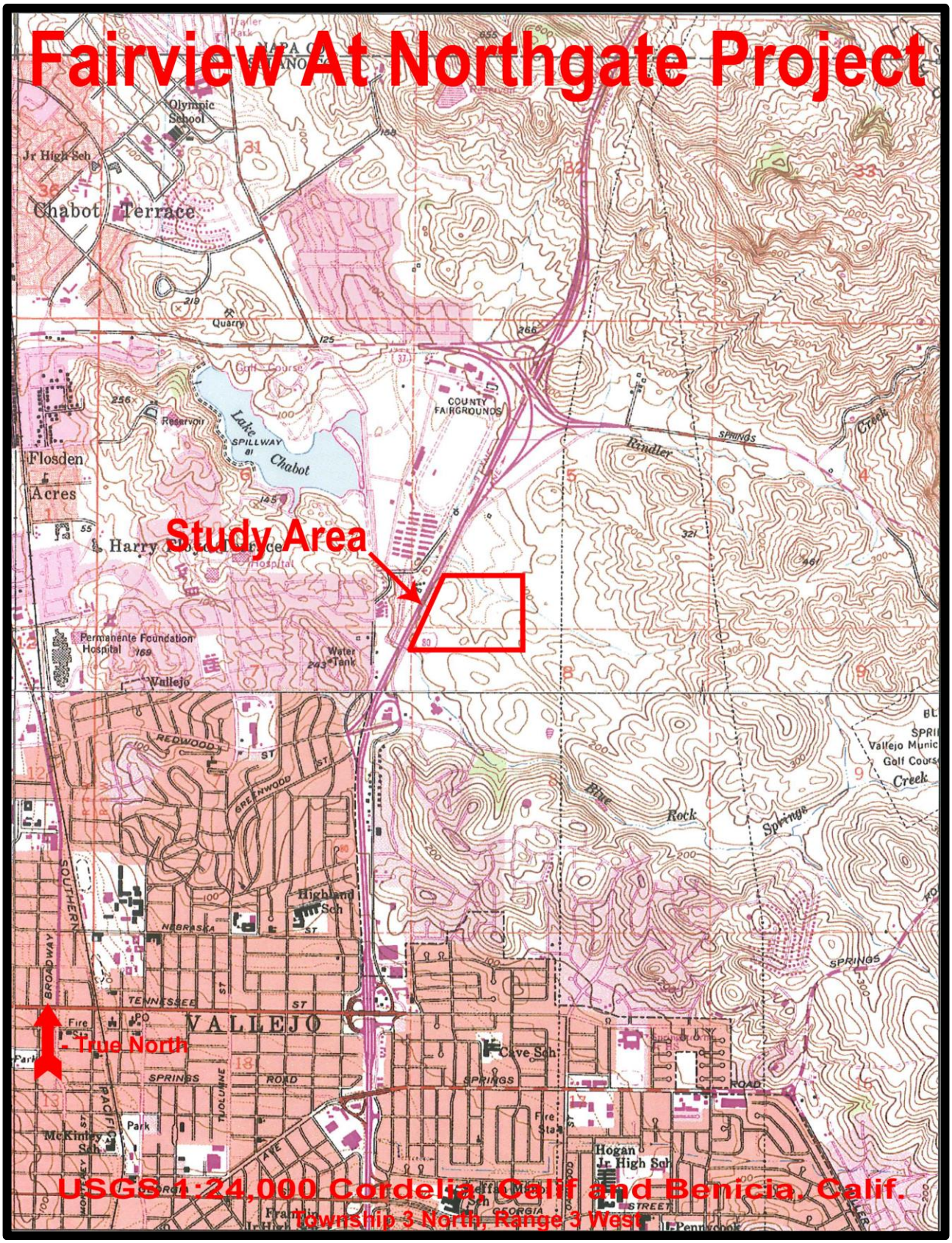

Fairview At Northgate Project
Study Area
True North
USGS 1:24,000 Cordelia, Calif and Benicia, Calif.
Township 3 North, Range 3 West
Olympic School
Jr High Sch
Chabot Terrace
Quarry
Golf Course
Reservoir
Lake Chabot
SPILLWAY
COUNTY FAIRGROUNDS
Flosden Acres
Permanente Foundation Hospital
Water Tank
Vallejo
REDWOOD ST
GREENWOOD ST
SOUTHERN
BROADWAY
Highland Sch
NEBRASKA ST
TENNESSEE ST
VALLEJO
Fire Sta
PO
Park
McKinley Sch
SPRINGS ROAD
TUOLUMNE
PACIFIC
Cave Sch
Hogan Jr High Sch
GEORGIA STREET
Rindler Creek
Blue Rock Springs Creek

Figure 3

The parking areas will incorporate a full complement of C3 drainage facilities within the commercial area parking area. The buildings will be designed to promote a pedestrian and bicycle friendly environment to encourage alternative transportation modes other than personal automobiles. A complete signage plan will be submitted during the entitlement process.

The Residential component will consist of a community of 187 single family detached units comprised of two home types. Ninety-six (96) units will be developed as homes fronting on a private courtyard with alley loaded garages. The remaining ninety-one (91) units will be developed as traditional single family detached units on a lot with a 42-foot minimum width and a depth of a minimum of 85 feet. These building types require use of the Planned Development Zone. The following additional data points are instructive:

a) The average density for the combined residential use is 7.9 units per gross acre.
b) The project's plan submittal will provide a description of the architectural styles as well as floor plans and elevations of the planned residential buildings.
c) The community HOA will maintain the open space areas as well as the C3 basins.
d) The City standard for residential parking is 38 spaces. The plan provides 110 spaces.
e) The park dedication requirement is calculated to be 2.42 acres. The project will provide parks and privately maintained greenspace to fulfill the parkland dedication requirements. In the event an insufficient amount of parkland is dedicated per the Quimby requirements, the project will pay an in-lieu fee to mitigate for required amount of insufficiently provided parkland acreage.
f) Park site and Water Quality Basin. The park site will encompass area dedicated for year-round use as an active neighborhood park as well as a separate area for use as a year-round C3 urban runoff water treatment basin. It is intended that the usable park area will be 0.25 acres, and the water treatment basin will be approximately 0.25 acres. Given the nature of the large users in the commercial area pedestrian access will be oriented to the service uses at the north end of the site just west of the entry to the residential community.
g) A HOA will be formed for the residential portion of the site only with assessments placed upon each residential unit to provide for proper ongoing maintenance and replacement of private common area landscaping and storm drainage infrastructure including features associated with water quality/CIII requirements, erosion control, and landscaping. HOA formation documents and covenants, conditions, and restrictions (CC&R's) shall establish strict guidelines on monitoring and maintenance requirements based upon reasonable obligations set forth by the developer and any agencies having jurisdiction over any specific facility or infrastructure designated to be maintained by the HOA. The HOA and CC&R's shall be formed prior to any occupancies within the residential portion of the Project such that the proper disclosures regarding obligations and assessments are properly and clearly disclosed at the time of home sales.

The Open Space area within the project includes a central open space corridor separating the Commercial and Residential components, providing a buffer from the Commercial portion of the project. This area will carry protective restrictions that will not allow public use and the open space will be securitized by perimeter fencing, other than private gates for maintenance accessibility from the Commercial component. The project HOA will own and maintain the open space area.

A land use table is provided below:

Fairview at Northgate			
USE	**ACRES**	**SQUARE FEET**	**UNITS**
Commercial	20.3		
Large User		152,138	
Pad Building #1		3,000	
Building #2		9,400	
Building #3		7,140	
Building #4		7,960	
Gasoline Service		50	
Residential	22.6		
Single Family Detached Traditional			91
Single Family Detached Courtyard			96
Open Space / Other			
Central Corridor	5.15		
Park/WQ Basin	0.5		
Right of Way	1.6		
TOTALS	50.15	179,688	187

Cultural Resources

The proposed project will require Clean Water Act (CWA) permitting from the United States Army Corps of Engineers, and the applicant will participate as a consulting party to assist the federal agency in demonstrating compliance with Section 106 of the NHPA (16 U.S.C. 470f; regulations codified at 36 CFR Section 800).

The current project involved collection of background data, including a record search through the Northwest Information Center of the California Historical Resources Information System, Native American consultation, and a complete pedestrian survey of the Study Area.

Melinda Peak served as principal investigator for the current study, preparing the report, with Michael Lawson completing the fieldwork (resumes, Appendix 1).

REGULATORY CONTEXT

The Section 106 review process is implemented using a five step procedure: 1) identification and evaluation of historic properties; 2) assessment of the effects of the undertaking on properties that are eligible for the National Register; 3) consultation with the State Historic Preservation Office (SHPO) and other agencies for the development of a memorandum of agreement (MOA) that addresses the treatment of historic properties; 4) receipt of Advisory Council on Historic Preservation comments on the MOA or results of consultation; and 5) the project implementation according to the conditions of the MOA.

The Section 106 compliance process may not consist of all the steps above, depending on the situation. For example, if identification and evaluation result in the documented conclusion that no properties included in or eligible for inclusion are present, the process ends with the identification and evaluation step.

FRAMEWORK FOR EVALUATION

Decisions regarding management of cultural resources hinge on determinations of their significance (36 CFR 60.2). As part of this decision-making process the National Park Service has identified components which must be considered in the evaluation process, including:

- o criteria for significance;
- o historic context; and
- o integrity.

Criteria for Significance

Significance of cultural resources is measured against the National Register criteria for evaluation:

> The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and,
>
> (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> (b) that are associated with the lives of persons significant in our past; or

(c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Historic Context

The historic context is a narrative statement "that groups information about a series of historic properties based on a shared theme, specific time period, and geographical area." To evaluate resources in accordance with federal guidelines, these sites must be examined to determine whether they are examples of a defined "property type." The property type is a "grouping of individual properties based on shared physical or associative characteristics." Through this evaluation, each site is viewed as a representative of a class of similar properties rather than as a unique phenomenon. A well-developed historical context helps determine the association between property types and broad patterns of American history. Once this linkage is established, each resource's potential to address specific research issues can be explicated.

Integrity

For a property to be eligible for listing in the National Register it must meet one of the criteria for significance (36 CFR 60.4 [a, b, c, or d]) and retain integrity. Integrity is defined as "the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period."

The following discussion is derived from National Register Bulletin 15 ("How to Apply the National Register Criteria for Evaluation").

Within the concept of integrity, there are seven aspects or qualities that define integrity in various combinations. The seven aspects are: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property will possess several or usually most of these aspects. The retention of specific aspects is necessary for a property to convey this significance. Determining which of the seven aspects are important involves knowing why, where and when the property is significant.

The prescribed steps in assessing integrity are as follows:

- define the essential physical features that must be present for a property to represent its significance;
- determine whether the essential physical features are visible enough to convey their significance;
- determine whether the property needs to be compared with similar properties; and,
- determine, based on the significance and essential physical features, which aspects of integrity are particularly vital to the property being nominated and if they are present.

Ultimately, the question of integrity is answered by whether or not the property retains the identity for which it is significant.

All properties change over time. It is not necessary for a property to retain all its historic physical features or characteristics. However, the property must retain the essential physical features that enable it to convey its historic identity. The essential physical features are those features that define why a property is significant.

A property's historic significance depends on certain aspects of integrity. Determining which of the aspects is most important to a particular property requires an understanding of the property's significance and its essential physical features. For example, a property's historic significance can be related to its association with an important event, historical pattern or person. A property that is significant for its historic association is eligible for listing if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person.

A property important for association with an event, historical pattern, or person ideally might retain some features of all seven aspects of integrity. Integrity of design and workmanship, however, might not be as important to the significance, and would not be relevant if the property were an archeological site. A basic integrity test for a property associated with an important event or person is whether a historical contemporary would recognize the property as it exists today. For archeological sites that are eligible under criteria A and B, the seven aspects of integrity can be applied in much the same way as they are to buildings, structures, or objects.

In sum, the assessment of a resource's National Register eligibility hinges on meeting two conditions:

- the site must possess the potential to be eligible for listing in the National Register under one of the evaluation criteria either individually or as a contributing element of a district based on the historic context that is established; and

- the site must possess sufficient integrity, i.e. it must retain the qualities that make it eligible for the National Register.

For the National Register, "a district possesses a significant concentration, linkage, or continuity of "... objects united historically or aesthetically by plan or physical development." The identity of a district derives from the relationship of its resources, which can be an arrangement of functionally related properties.

STATE REGULATIONS

State historic preservation regulations affecting this project include the statutes and guidelines contained in the California Environmental Quality Act (CEQA; Public Resources Code sections 21083.2 and 21084.1 and sections 15064.5 and 15126.4 (b) of the CEQA Guidelines). CEQA

Section 15064.5 requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. Public Resources Code Section 21098.1 further cites: A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

A "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (Public Resources Code section 5020.1).

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR), *CEQA and Archaeological Resources,* 1994. The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains (California Health and Safety Code Section 7050.5, California Public Resources Codes Sections 5097.94 et al).

The California Register of Historical Resources (Public Resources Code Section 5020 et seq.)

The State Historic Preservation Office (SHPO) maintains the California Register of Historical Resources (CRHR). Properties listed, or formally designated as eligible for listing, on the National Register of Historic Places are automatically listed on the CRHR, as are State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources. When a project will impact a site, it needs to be determined whether the site is an historical resource. The criteria are set forth in Section 15064.5(a) (3) of the CEQA Guidelines, and are defined as any resource that does any of the following:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

B. Is associated with the lives of persons important in our past;

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

D. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, the CEQA Guidelines, Section 15064.5(a) (4) states:

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

California Health and Safety Code Sections 7050.5, 7051, And 7054

These sections collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

California Public Resources Code Section 15064.5(e)

This law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction. The section establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project and establishes the Native American Heritage Commission as the entity responsible to resolve disputes regarding the disposition of such remains.

Assembly Bill 52

Assembly Bill (AB) 52 establishes a formal consultation process for California tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts. AB 52 defines a "California Native American Tribe" as a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission. AB 52 requires formal consultation with California Native American Tribes prior to determining the level of environmental document if a tribe has requested to be informed by the lead agency of proposed projects. AB 52 also requires that consultation address project alternatives, mitigation measures, for significant effects, if requested by the California Native American Tribe, and that consultation be considered concluded when either the parties agree to measures to mitigate or avoid a significant effect, or the agency concludes that mutual agreement cannot be reached. Under AB 52, such measures shall be recommended for inclusion in the environmental document and adopted mitigation monitoring program if determined to avoid or lessen a significant impact on a tribal cultural resource.

CULTURAL SETTING

Ethnography

The Patwin occupied the southern Sacramento Valley west of the Sacramento River from the town of Princeton, north to Colusa, south to San Pablo and Suisun bays. Patwin territory extended approximately 90 miles north to south and 40 miles east to west. Distinction is made between the River Patwin, who resided in large villages near the Sacramento River, especially between Colusa and Knights Landing, and the Hill Patwin, whose villages were situated in the small valleys along the lower hills of the Vaca Mountains and Coast Range, with concentrations in Long, Indian, Bear, Capay, Cortina and Napa valleys (Johnson 1978:350; Powers 1877:218). The term "Patwin" refers to the people belonging to the many small contiguous independent political entities in this area who shared linguistic and cultural similarities. Hill and River Patwin dialects are grouped into a North Patwin language, separate from South Patwin, spoken by people who live near present-day Knight's Landing and Suisun. Together, these are classified as southern Wintuan and belonging to the Penutian language family as do the languages of the Miwok and Costanoan peoples (Johnson 1978:350-359; Kroeber 1925:351-354).

Politically, the Patwin were organized in small tribes or tribelets, each consisting of a primary village with satellite villages. Tribelets were autonomous and differed from other such units in minor cultural variations. Dialects might encompass several tribelets. Territories were vaguely defined, but included fishing and gathering areas used by the group. In each village, the leader or chief administered subsistence ventures, such as hunting or gathering, and presided over ceremonies. Social and economic activities were divided among families within a village, with certain families responsible for different specialties such as trapping ducks, collecting salt, making foot drums, or performing particular dances or shamanistic rituals (Johnson 1978:354-355).

Patwin territory includes the riverine environment of tule marshes, vines and brush near the Sacramento River, the flat grasslands dotted with oak groves, and the hills and small valleys of the Coast range. The villages situated on low bluffs near the river were often very large; in 1848, General Bidwell estimated at least 1000 residents at *Koru*, near Colusa (Powers 1877:219). In the hills, the Patwin settled in the small valleys, particularly along Cache and Putah creeks, where large populations were reported. The plains were least hospitable; there, villages were sparse because of winter flooding and lack of reliable water sources during the dry months. As Powers described:

> *In winter, there was too much water on them, in summer none at all, and the aborigines had no means of procuring an artificial supply. Besides there was no wood on them, and the overflowed portions in early summer breed millions of accursed gnats, which render human life a burden and a weariness. Hence, they were compelled to live beside water-sources, except during certain limited periods in the winter, then they established hunting-camps out on the plains* (Powers 1877:219).

Kroeber noted that the Patwin responded to these seasonal changes by shifting their habitation sites:

> *The valley people evidently had their permanent villages on the river itself -- that is, in the marsh belt -- but appear to have left this during the dry half of the year to live on the adjacent plains, mostly by the side of tributaries. The upland people built their winter homes where the streams issue on these creeks, and in summer moved away from the main water courses into the hills or mountains* (Kroeber 1925:354).

Within a village, the Patwin constructed earth-covered semi-subterranean structures. The Hill Patwin used a circular floor plan while the River Patwin favored an elliptical shape. Four types of building occurred in a predictable pattern: the ceremonial dance house was placed a short distance to the north or south of the village, the sudatory or sweat house was positioned to the east or west of the dance house, and the menstrual hut was built on the edge of the village, farthest from the dance house. Family dwellings could be erected anywhere within the community. Family lodges were built by one's paternal relatives while the other structures were the product of a communal effort. They used readily available materials, forming a framework of saplings, and covering the walls and roof with mud and brush (Johnson 1978:357-358; Powers 1877:220-221).

Natural resources flourished in Patwin territory. They gathered seeds and plant foods and hunted game animals on the plains, shot or netted ducks and other migratory water fowl in the thick tule marshes, and netted salmon and other fish in the rivers and streams. Some of these activities were conducted by groups or families assigned to particular resource areas by a village chief.

Acorns were a staple in the Patwin diet. Two types of Valley oak and rarely, live oak acorns, were gathered at communally-owned groves (Johnson 1978:355). The common practice was to store abundant quantities of acorns in tall granaries to assure against hunger in years of poor harvest. Kroeber observed a Patwin granary more than eight feet tall and three feet in diameter (Heizer and Elsasser 1980:99). Women prepared the bitter crop by pulverizing the acorns, then leaching out the bitter tannic acid before making bread or acorn soup. At privately-owned gathering tracts on the plains, families gathered seeds, including sunflower, alfilaria, clover, bunchgrass, wild oat and yellow-blossom. The Patwin also collected a variety of bulbs, nuts, roots and berries. These included buckeye, pine nuts, juniper berries, manzanita berries, blackberries, wild grapes, brodiaea bulbs, and tule roots. To obtain salt, the Patwin scraped off rocks that were found near Cortina, burned a grass that grew on the plains, or obtained it in trade from the neighboring Pomo (Johnson 1978:355).

King salmon, silver salmon and steelhead trout that run from the ocean to freshwater rivers and streams were an important diet item. Explorers observed Patwin fishing for salmon with a boom net in 1854 (Heizer and Elsasser 1980: Figure 37). The Patwin also caught smaller fish and collected mussels from the river bottom. They attracted wild ducks by setting out realistic decoys, then drove the fowl into large nets stretched above the marshes. Hunters also netted mud hens, geese and quail. The Suisun tribelet pursued waterfowl in tule rafts (Powers 1877:220). The Patwin hunted large game, such as tule elk, deer, antelope and bear, and took many varieties of

small animals, reptiles, insects and birds either to eat or to use for ceremonial and practical materials (Johnson 1978:355).

The ceremonial life of the Patwin was centered on the Kuksu cult system, which features one or more secret societies, each with its own dances and rituals. The Kuksu cult occurs among several north central California tribes, but it was more elaborate among the Patwin who possessed three secret societies: the Kuksu, ghost and Hesi types, each with a slightly different purpose. The ghost society stressed initiation, the Kuksu emphasized curing and shamanistic functions, and the Hesi elaborated on ceremonial dance (Johnson 1978:353). In addition to ritual duties, shamans were called upon to heal the sick by applying native medicines or by sucking out the offending spiritual cause of the illness. The Patwin generally buried their dead, although the tribelets furthest south may have cremated the deceased. The Patwin near Colusa bent the body, wrapped it with strings of shell money, and covered it with an animal skin secured with ropes. They interred the corpse with material goods in a grave situated within a village or within 100 yards of a dwelling or dance house (Kroeber 1925:359-361).

Historical accounts of the Patwin include the early mission registers of baptisms, marriages and deaths of Indians taken to Mission Dolores and Mission San Jose as early as 1800. In 1823, Mission San Francisco Solano was established in nearby Sonoma and it continued the missions' work until about 1832-1836, when all the missions were secularized. During this time, several Mexican land grants were awarded and large ranchos were established on Putah and Cache creeks (Johnson 1978:351).

Pre-contact population is difficult to estimate, but a survey of various sources seems to indicate that the Patwin may have numbered 4000 before their first encounter with non-Indians. The Patwin suffered from a succession of devastating impacts to their numbers: missionization, punitive military expeditions, and fatal confrontations with ranchers took their toll on the populace. John Work's party of trappers from the Hudson's Bay Company came down the Sacramento River in 1832, returning up the river in 1833. They unintentionally introduced a deadly disease to native California and, in their wake, a malaria epidemic swept through the Sacramento Valley. Just four years later, in 1837, smallpox raged through the villages and, as a result of these diseases, up to 75 percent of the Patwin died (Cook 1955). Those who survived these tragedies eventually settled on small reservations or worked as ranch laborers. Throughout the 1800s and 1900s, the population decreased; in 1972, the Bureau of Indian Affairs counted only eleven Patwin in the entire territory. Three reservations--Colusa, Cortina and Rumsey--remain active; they are occupied primarily by descendants of Wintun and other groups (Johnson 1978:352).

Prehistory

Humans are believed to have resided in Solano County for the past 13,000 years. Archeologists who have studied these past cultures have uncovered evidence of widespread activities that allowed them to divide these previous 13,000 years into periods or phases based on the kinds of subsistence behaviors practiced.

Six periods have been identified with locally defined phases and regional cultures added to the mix. The six periods are (Milliken et al. in Jones and Klar 2007):

- Early Holocene (Lower Archaic), 8000 - 3500 B.C
- The Early Middle Period (Middle Archaic), 3500 B.C. - 500 B.C.
- The Lower Middle Period (Initial Upper Archaic), 500 B.C. – A.D. 430
- Upper Middle Period (Late Upper Archaic), A.D. 430 – A.D. 1050
- Initial Late Period (Lower Emergent), A.D. 1050 – A.D. 1550
- Terminal Late Period: Protohistoric Ambiguities, A.D. 1550 - 1775

Early Holocene (Lower Archaic), 8000 B.C. – 3500 B.C.
Few Bay Area sites have been discovered to represent this time period. A pattern of generalized mobile foraging with artifacts such as the milling slab and hand stone (mano and metate), and large wide stem and leaf shaped projectile points common.

The Early Middle Period (Middle Archaic), 3500 B.C. – 500 B.C.
New technological advances involving the use of the mortar and pestle first appear during this period as does the first evidence for the manufacture of shell beads. Researchers suggest increased sedentism occurred as did an expansion in trade.

The Lower Middle Period (Initial Upper Archaic), 500 B.C. – A.D. 430
A dramatic shift in the types of shell beads being manufactured is observed at site with components dating to this period. New types of bone tools, such as the barbless fish hooks, first appeared indicating an increasing exploitation of the immediate environment, probably brought on by increasing populations pressures.

Upper Middle Period (Late Upper Archaic), A.D. 430 – A.D. 1050
A.D. 430 witnessed another dramatic shift in the selection of bead styles and the way people were buried. What caused this dramatic cultural upheaval is uncertain. The formally popular style of shell beads became obsolete with new, smaller varieties becoming widespread.

Initial Late Period (Lower Emergent), A.D. 1050 – A.D. 1550
Populations continued to increase as did resource exploitation and with it a whole new level of the manufacture of numerous, finely-made grave goods that were buried with the dead. Social stratification can also be observed in the differing amounts of grave goods interred with a particular individual. The bow and arrow appeared in the area around A.D. 1250 causing among other things, a shift in the procurement of rock types and sources used in the manufacture in this new technological innovation.

Terminal Late Period: Protohistoric Ambiguities, A.D. 1550 – 1775
Once again, the style of shell beads abruptly changed throughout the Bay Area. Grave goods became less common and some researchers have suggested that populations were faced with increasing stress by over population and perhaps the early introduction of European-based diseases.

Historic Context

The land for many years was not specifically associated with the community of Vallejo, but rather was located in the Vallejo Township, comprised of the many thousands of acres of agricultural land. Vallejo was the service area for the local farmers and ranchers of the Township.

The General Land Office plat for Township 3 North Range 3 West shows the Study Area as a portion of an 80-acre landholding, partially in section 5 and section 8. The land was owned by "Mitchell" in that year, and was apparently acquired by Ann Mitchell by 1863, and possibly as early as 1860. The 1863 map shows two fences on the property, and the home is in the northwestern corner of the property.

There is an Annie Mitchell in the Vallejo Township that would include the Study Area in 1860, with 3 sons and a daughter, and two farmworkers in the household. She is apparently widowed by this date, and is working as a farmer.

In 1870, Ann Mitchell is living on the land with four children, and a 9-year-old girl with a different surname. Ann Mitchell was born in Ireland in 1825, She had a second child born in New York in 1856 (Edward), with her next son born in California in 1858 (Federal Census 1870).

Ann Mitchell's occupation is farming, with her 80 acres valued at $7,000 and having $400 in personal property in 1870. Anna Mitchell is also listed in the 1880 Agricultural Schedule as the landowner, with 80 acres of land, 55 acres of which was used for growing wheat. She also had 25 acres of grassland, with 7 horses and 2 cows (Agricultural Schedule for the Federal Census 1880).

The 1878 Solano County map shows Mrs. Mitchell as the landowner. In 1880, Ann Mitchell is again listed in Solano County in the census, with her 4 children in the household.

By 1915, the 80-acre tract was owned by W.E. Cochran. Corcoran lived on the property at about this time, and in 1920, the census places him on the property on Upper Springs Road, with his wife and two children, working a "General Farm." By 1926, he has moved into Vallejo, and is working as a "dairyman."

On April 6, 1926, W.E. Cochran sold the land to August and Minnie Kuckuk (Solano County Deeds Book 287: 431). Kuckuk had been born in Pyrmont, Germany in 1884, and came to the United States in 1902. In 1910, he had married and had a 7-month-old daughter, Melusine. He was working as a clerk at a liquor store. His wife, Minnie, had German-speaking Swiss parents. The family lived in Ward 1 in Vallejo (Federal Census 1910; 1920; World War II Draft Registration).

By 1918, Kuckuk had started work at the Mare Island Navy Shipyards, and registered for the draft. He was a concrete worker at the time. At that point, it is not certain where they lived, with a General Delivery address in Vallejo (Draft Registration Records for World War I).

In 1920, the family lived on the Napa Road, and Kuckuk still worked at the Navy Shipyards as a survey team member. The family had added a son, Walden, in 1912 (Federal Census 1920).

Ten years later, the family had begun to use the last name "Cooke" instead of Kuckuk. They are listed on the project area in the census, with August still at Navy Shipyards, joined by son Walden, working as an apprentice. Older daughter Melusine was no longer in the household, having married Nealy Vance, but another daughter and son had been added to the family (Federal Census 1930).

The legal name change may not have occurred for a few years with August list in City Directories in the early 1930s. A 1933 deed to allow the State Highway to be constructed across the property uses the name Cooke, but indicates that they were" formerly known as August and Minnie Kuckuk." The formal construction of the highway did split the parcel, placing the house on the west side of the road. This split made the project area more of a difficultly for physical management, and likely became land leased out for grazing on a seasonal basis.

What apparently did occur with the new highway creating an opportunity for the family was the construction of an "auto court" near the family home. An auto court was a small motel, common during the Depression era, and many times run as a "mom and pop" business. In 1940, August remained at the shipyards as a surveyor, with Minnie the owner/manager of the auto court. Three children lived in the home: oldest daughter Melusine Vance, daughter Evelyn, and son Melvyn. Melusine and Evelyn both worked with their mother on the family auto court business, one as a bookkeeper and one as an assistant (Federal Census 1940).

Gradually, with the 1930s construction of the highway, later expanded to a freeway by 1968, adjacent to the property, the region has become residential and commercial in nature, with the Study Area appearing to remain open space, with use by off road vehicles in recent years.

RESEARCH

A record search was conducted for the Study Area at the Northwest Information Center of the California Historical Resources Information System on June 9, 2017 (RS#16-1834, Appendix 2).

The Study Area had one previous survey conducted in 1973 (Dietz and Jackson 1973) along the extreme northern edge, although this could also be a mapping error. There are no cultural resources recorded within a 0.10-mile radius.

Other cultural surveys have been conducted in the vicinity of the Study Area.

NATIVE AMERICAN CONSULTATION

The Native American Heritage Commission was contacted for a check of their Sacred Lands file for properties near the Study Area. Their reply of May 17, 2017, indicated that there were no sacred sites in the immediate project vicinity. They supplied a list of Native American contacts for the project vicinity that could provide more information: Charlie Wright, Chairperson of the Cortina Indian Rancheria of Wintun Indians and Leland Kinter, Chairperson of the Yocha Dehe Wintun Nation. Both groups were contacted by letter on May 18, 2017, with a request for any information or concerns they might have regarding the proposed project.

Yoche Dehe replied by letter on June 20, 2017 stating that the Study Area was within their ancestral tribal territory and that the project could impact known archaeological/cultural sites and requested a copy of the cultural resource study for the project (Appendix 3). The final report will be provided to their office.

FIELD ASSESSMENT

Michael Lawson completed a field survey of the project site on June 16, 2017, with a complete inspection of the entire proposed project site (Figure 4).

The vegetation of the site consists mostly of dead grasses, but occasional native oaks as well as ornamental and fruit trees can be found throughout parcel. The soil visibility was excellent due to recent plowing, and rodent disturbance. The soil is uniform throughout survey area in color, texture and moisture content; a medium tan sandy loam with light gravel and sporadic cobbles of local stone.

Five to ten-meter wide parallel transects were used during the survey, for complete coverage of the Study Area. Where necessary, the surveyor dug small holes dug to clear vegetation and to examine the sediments.

The field surveyor found no evidence of prehistoric period or historic period cultural resources within the Study Area.

Environmental Setting

The Study Area has three soils series: Clear Lake clay; Dibble-Los Osos loams; and Dibble-Los Osos clay loams. Clear Lake clay is distributed along the western margin and as a wedge between the other two soil series near the center of the Study Area. Clear Lake clay is derived from igneous, metamorphic, and sedimentary rocks and normally forms in basins. It is a somewhat poorly drained clay that can be as deep as 80 inches. Dibble-Los Osos loam is located in the eastern portion of the Study Area and covers about 50 percent of the total area. It is derived from weathered sandstone and is quite shallow, averaging only about 30 inches in depth. Dibble-Los Osos clay loam is located in the western portion of the Study Area. It is also composed of weathered sandstone and has similar characteristics to Dibble-Los Osos loam, except has a slightly high content of clay particles (www.usga.gov).

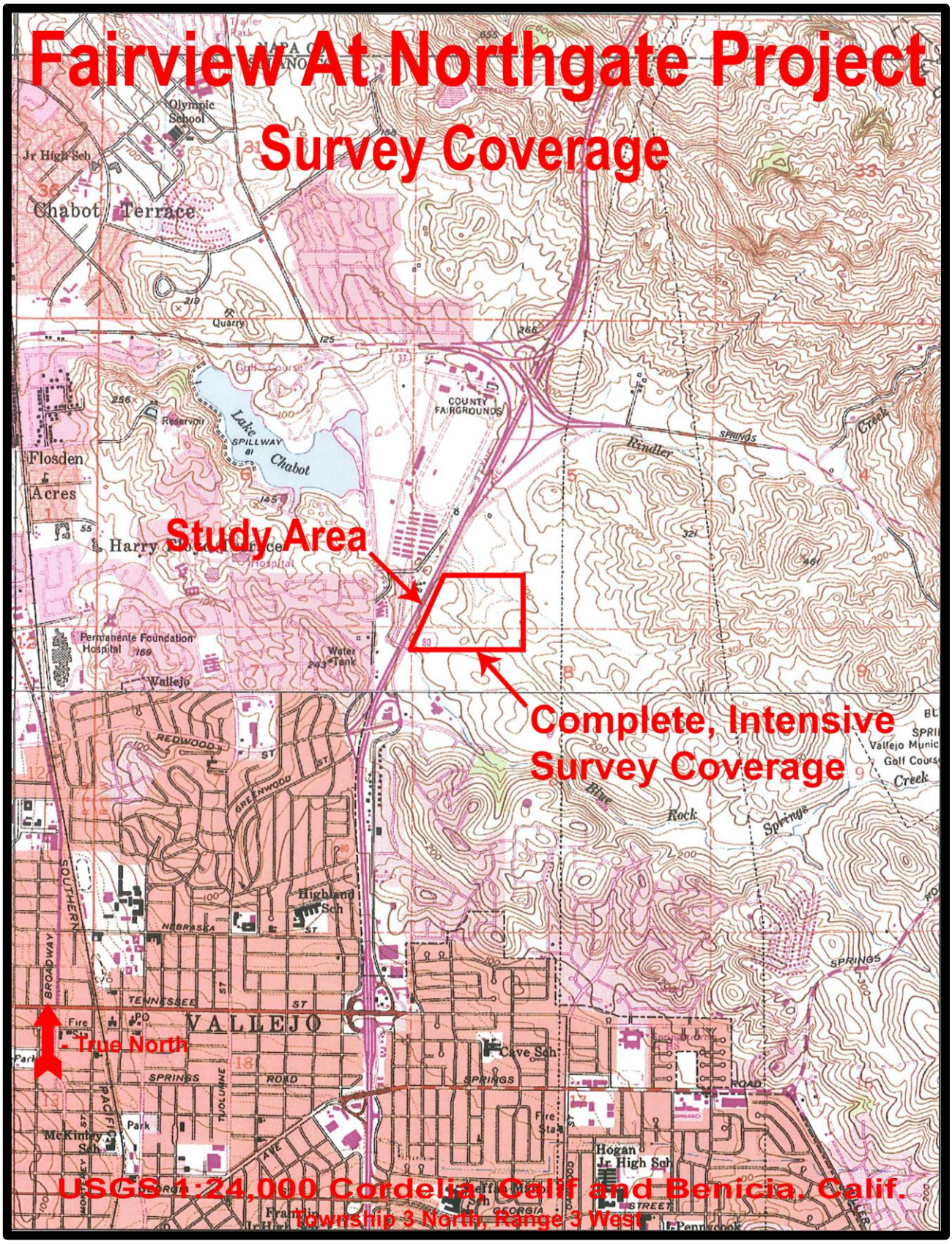

Fairview At Northgate Project
Survey Coverage
Study Area
Complete, Intensive
Survey Coverage
- True North
USGS 1:24,000 Cordelia, Calif. and Benicia, Calif.
Township 3 North, Range 3 West

Figure 4

The Study Area is located between two spring fed drainages with the southernmost- Blue Rock Springs Creek, adjacent to the extreme southwestern portion of the Study Area. A small, intermittent drainage transects the Study Area in the northeastern portion. The probability of encountering buried deposits of prehistoric period material is probably low throughout that portion of the Study Area containing Dibble-Los Osos loams and Dibble-Los Osos clay loams, but may have a moderate potential in areas containing Clear Lake clay, especially in that portion of the Study Area near Blue Rock Springs Creek.

EFFECTS OF THE PROPOSED PROJECT

As a result of the identification and evaluation efforts, an agency official may find that there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them as defined in Section 800.16 (i).

If the agency official finds there are historic properties that may be affected by the undertaking, the agency official shall apply the criteria of adverse effect. "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association" (Section 800.5 (a)). There are three possible findings:

- **Finding of no historic properties affected:** There is no effect of any kind on the historic properties.

- **Finding of no adverse effect:** There could be an effect, but the effect would not be harmful to the characteristics that qualify the property for inclusion in the National Register; or

- **Adverse effect:** There could be an effect, and that effect could diminish the integrity of such characteristics.

There are no historic properties present in the Study Area. With regard to Section 106 of the NHPA, it is recommended that agency seek concurrence from the California SHPO with a finding of "no historic properties affected" per § 800.4(d) (1).

Similarly, we believe that within the Study Area, there are no properties of significance under the criteria of the California Register of Historical Resources. For CEQA review, there be a less than significant effect to cultural resources from the implementation of the project.

RECOMMENDATIONS

There is always a possibility that a site may exist in the Study Area and be obscured by vegetation, siltation or historic activities, leaving no surface evidence. In order to assist in the recognition of cultural resources, a training session for all workers should be conducted in advance of the initiation of construction activities at the site. The training session will provide information on recognition of artifacts, human remains, and cultural deposits to help in the recognition of potential issues.

In addition, during the initial grading we recommend that a qualified archeologist be present to observe the initial land disturbance, and be able to halt work in the immediate vicinity should artifacts, exotic rock, shell or bone are uncovered during the construction. The monitor will be able to document the finding, and determine if additional work is necessary to excavate or remove the artifacts or feature.

Discovery of Human Remains

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 suspected to overlie adjacent remains until the Solano County Coroner has determined that the remains are not subject to any provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

If the Solano County Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC).

After notification, the NAHC will follow the procedures outlined in Public Resources Code Section 5097.98, that include notification of most likely descendants (MLDs), and recommendations for treatment of the remains. The MLDs will have 24 hours after notification by the NAHC to make their recommendations (PRC Section 5097.98).

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WRA Environmental Consultants
2017 Delineation of Waters of the U.S. Report, Fairview at Northgate, Vallejo, Solano County, California.

APPENDIX 1

Resumes

PEAK & ASSOCIATES, INC.
RESUME

MELINDA A. PEAK **January 2017**
Senior Historian/Archeologist
3941 Park Drive, Suite 20 #329
El Dorado Hills, CA 95762
(916) 939-2405

PROFESSIONAL EXPERIENCE

Ms. Peak has served as the principal investigator on a wide range of prehistoric and historic excavations throughout California. She has directed laboratory analyses of archeological materials, including the historic period. She has also conducted a wide variety of cultural resource assessments in California, including documentary research, field survey, Native American consultation and report preparation.

In addition, Ms. Peak has developed a second field of expertise in applied history, specializing in site-specific research for historic period resources. She is a registered professional historian and has completed a number of historical research projects for a wide variety of site types.

Through her education and experience, Ms. Peak meets the Secretary of Interior Standards for historian, architectural historian, prehistoric archeologist and historic archeologist.

EDUCATION

M.A. - History - California State University, Sacramento, 1989
Thesis: *The Bellevue Mine: A Historical Resources Management Site Study in Plumas and Sierra Counties, California*
B.A. - Anthropology - University of California, Berkeley

RECENT PROJECTS

Ms. Peak completed the cultural resource research and contributed to the text prepared for the DeSabla-Centerville PAD for the initial stage of the FERC relicensing. She also served cultural resource project manager for the FERC relicensing of the Beardsley-Donnells Project. For the South Feather Power Project and the Woodleaf-Palermo and Sly Creek Transmission Lines, her team completing the technical work for the project.

In recent months, Ms. Peak has completed several determinations of eligibility and effect documents in coordination with the Corps of Engineers for projects requiring federal permits, assessing the eligibility of a number of sites for the National Register of Historic Places. She has also completed historical research projects on a wide variety of topics for a number of projects including the development of navigation and landings on the Napa River, farmhouses dating to the 1860s, bridges, an early roadhouse, Folsom Dam and a section of an electric railway line.

In recent years, Ms. Peak has prepared a number of cultural resource overviews and predictive models for blocks of land proposed for future development for general and specific plans. She has been able to direct a number of surveys of these areas, allowing the model to be tested.

She served as principal investigator for the multi-phase Twelve Bridges Golf Club project in Placer County. She served as liaison with the various agencies, helped prepare the historic properties treatment plan, managed the various phases of test and data recovery excavations, and completed the final report on the analysis of the test phase excavations of a number of prehistoric sites. She is currently involved as the principal investigator for the Clover Valley Lakes project adjacent to Twelve Bridges in the City of Rocklin, coordinating contacts with Native Americans, the Corps of Engineers and the Office of Historic Preservation.

Ms. Peak has served as project manager for a number of major survey and excavation projects in recent years, including the many surveys and site definition excavations for the 172-mile-long Pacific Pipeline proposed for construction in Santa Barbara, Ventura and Los Angeles counties. She also completed an archival study in the City of Los Angeles for the project. She also served as principal investigator for a major coaxial cable removal project for AT&T.

Additionally, she completed a number of small surveys, served as a construction monitor at several urban sites, and conducted emergency recovery excavations for sites found during monitoring. She has directed the excavations of several historic complexes in Sacramento, Placer and El Dorado Counties.

Ms. Peak is the author of a chapter and two sections of a published history (1999) of Sacramento County, *Sacramento: Gold Rush Legacy, Metropolitan Legacy*. She served as the consultant for a children's book on California, published by Capstone Press in 2003 in the land of Liberty series.

Michael D Lawson
Archaeologist
Sacramento CA

Resume

- Extensive monitoring of open space, streets and project development areas for prehistoric period and historic period resources. Areas monitored include Sutter Street in Folsom; Mud Creek Archeological District in Chico; Camp Roberts, San Luis Obispo County; Avila Beach, San Luis Obispo County; Edgewood Golf Course, South Lake Tahoe; Davis Water Project, Davis; Star Bend levee section, Sutter County; Feather River levees, Sutter County; Bodega Bay, Sonoma County; San Jose BART line extension, Santa Clara County; and numerous sites for PG&E in San Francisco.

- 22 years of experience working in CRM, volunteer, and academic settings in California historic, proto historic, and prehistoric archaeology.

- Expertise in pedestrian survey, excavation, feature (including burial) exposure, laboratory techniques, research. Field positions include crew chief and lead technician.

- Master flintknapper, focusing for 20 years on California/Great Basin cutting tool and projectile forms and production techniques, as well as stone source research. Proto historic glass use for projectile points also a major focus. Research done in person at Phoebe Hearst Museum, Berkeley.

- 18 years of experience in traditional blacksmithing with focus on mid to late 19th century coal/charcoal forge techniques. Special interest in analysis of historic artifacts.

- 15 years independent study of late 19th century to mid-20th century farm and ranch equipment.

- Extensive independent study of historic era household, industrial and military items.

- Independent study of Yahi/Southern Yana occupation and survival strategy in the Mt. Lassen foothills, including field trips and research. Discoveries contributed to 3 publications.

- Current independent research project focus on Yahi adaptation strategy during time of hiding from 1870 to 1911 in Deer, Antelope and Mill Creek Canyons.

Education

- B.A. Anthropology with focus on archaeology. California State University Sacramento.
- A.A. General Education, lower division completed in Anthropology.

Field experience

Survey, excavation, photography conducted in 46 California and 3 Nevada counties over 20 years.

Notable historic archaeology projects include Virginia Town excavation of Gold Rush Era Chinese mining camp; test excavation and data recovery at stage stop on Green Valley Rd, Placer County; monitoring and collection of burial material at historic Kilgore cemetery, Rancho Cordova, Car; Monitoring, data recovery, photography, and artifact cataloguing for Sutter Street Revitalization Project, Phase One, Historic Folsom, CA; Monitoring, test excavation, data recovery at The Presidio of San Francisco, CA; Monitoring for 230 kv line installation for PG&E in historic San Francisco, Ca. to name just a few.

Prehistoric and Proto-historic site project involvement highlights include survey, monitoring, excavation Twelve Bridges Golf Course, Lincoln, CA; survey, monitoring, excavation Clover Valley Lakes, Rocklin, CA; survey of Diamond Valley, Alpine County, CA; Survey, excavation, burial care and monitoring of Feather River Levee Setback Project, Sutter County, CA; monitoring, excavation, burial care, Feather River West Levee Project, Yuba County, CA; survey, monitoring, excavation, and burial care Alamo Creek Detention Basin Project, Solano County, CA; monitoring, excavation, burial care, BART extension Project, San Jose, Milpitas, CA; Survey, excavation San Clemente Island, US Channel Islands, Los Angeles County, CA.

Additional Skills

Mike is known for extensive knowledge of historic and prehistoric artifacts and regularly instructs new undergraduates as well as graduates on artifact identification, use, manufacture and commonality.

Mike is also known for his willingness to share and teach his expertise in field techniques from surveying to excavation and feature work.

APPENDIX 2

Record Search

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

6/9/2017 NWIC File No.: 16-1834

Neal Neuenschwander
Peak & Associates, Inc.
3161 Godman Avenue
Chico, CA 95973

re: Fairview at Northgate Project

The Northwest Information Center received your record search request for the project area referenced above, located on the Cordelia USGS 7.5' quad. The following reflects the results of the records search for the project area and a 1/10th of a mile radius:

Resources within project area:	None
Resources within 1/10th of a mile radius:	None
Reports within project area:	S-5068.
Reports within 1/10th of a mile radius:	S-38752.
Other Reports within records search radius:	S-595, 848, 2663, 9462, 9795, 12492, 17835, 30204, 32596, & 33600. These reports are classified as Other Reports; reports with little or no field work or missing maps. The electronic maps do not depict study areas for these reports, however a list of these reports has been provided. In addition, you have not been charged any fees associated with these studies.

Resource Database Printout (list):	☐ enclosed	☐ not requested	☒ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	☐ not requested	☒ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
OHP Historic Properties Directory:	☒ enclosed	☐ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed

CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Local Inventories:	☐ enclosed	☐ not requested	☒ nothing listed
GLO and/or Rancho Plat Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Shipwreck Inventory:	☐ enclosed	☒ not requested	☐ nothing listed

*Notes:

** Current versions of these resources are available on-line:

Caltrans Bridge Survey: http://www.dot.ca.gov/hq/structur/strmaint/historic.htm

Soil Survey: http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=CA

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Lisa C. Hagel
Researcher

APPENDIX 3

Native American Consultation

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
Fax (916) 373-5471

May 17, 2017

Neal Neuenschwander
Peak & Associates

Sent by Email: peakinc@yahoo.com
Number of Pages: 2

RE: Fairview at Northgate, Cordelia, Solano County

Dear Mr. Neuenschwander:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. **Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.**

I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. **By contacting all those on the list, your organization will be better able to respond to claims of failure to consult.** If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: Sharaya.souza@nahc.ca.gov.

Sincerely,

Sharaya Souza
Staff Services Analyst

Native American Heritage Commission
Native American Contacts
5/17/2017

Cortina Indian Rancheria of Wintun Indians
Charlie Wright, Chairperson
P.O. Box 1630 Wintun / Patwin
Williams , CA 95987
(530) 473-3274 Office
(530) 473-3301 Fax

Yocha Dehe Wintun Nation
Leland Kinter, Chairperson
P.O. Box 18 Wintun (Patwin)
Brooks , CA 95606
lkinter@yochadehe-nsn.gov
(530) 796-3400
(530) 796-2143 Fax

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources assessments for the updated contact list for Fairview at Northgate, Cordelia, Solano County.

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY

May 18, 2017

Charlie Wright, Chairperson
Cortina Indian Rancheria of Wintun Indians
P.O. Box 1630
Williams, CA 95987

Subject: Fairview at Northgate Project, Solano County, California

Dear Honorable Chairperson Wright,

The Fairview at Northgate Project involves the development of an approximately 57-acre parcel located on the east side of Interstate 80 in Vallejo. A record search is currently underway at the Northwest Information Center, California Historical Resources Information System.

If you wish to have input or comment on the proposed Fairview at Northgate Project, please don't hesitate to contact me, Neal Neuenschwander, Staff Archeologist, Peak & Associates, Inc., 3161 Godman Avenue, Chico, CA 95973, (530) 342-2800, peakinc@yahoo.com Thank you for your time reviewing this letter and attached map.

Sincerely,

Neal Neuenschwander

Neal Neuenschwander
Staff Archeologist

Enc. USGS topographic map of the project area

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY

May 18, 2017

Leland Kinter, Chairperson
Yocha Dehe Wintun Nation
P.O. Box 18
Brooks, CA 95606

Subject: Fairview at Northgate Project, Solano County, California

Dear Honorable Chairperson Wright,

The Fairview at Northgate Project involves the development of an approximately 57-acre parcel located on the east side of Interstate 80 in Vallejo. A record search is currently underway at the Northwest Information Center, California Historical Resources Information System.

If you wish to have input or comment on the proposed Fairview at Northgate Project, please don't hesitate to contact me, Neal Neuenschwander, Staff Archeologist, Peak & Associates, Inc., 3161 Godman Avenue, Chico, CA 95973, (530) 342-2800, peakinc@yahoo.com Thank you for your time reviewing this letter and attached map.

Sincerely,

Neal Neuenschwander
Neal Neuenschwander
Staff Archeologist

Enc. USGS topographic map of the project area

YOCHA DEHE
CULTURAL RESOURCES

June 20, 2017

Peak & Associates
Attn: Neal Neuenschwander, Staff Archeologist
3941 Park Drive, Suite 20 #329
El Dorado Hills, CA 95762

RE: Northgate Project

Dear Mr. Neuenschwander:

Thank you for your project notification letter dated, May 18, 2017, regarding cultural information on or near the proposed Northgate Project, Vallejo, Solano County. We appreciate your effort to contact us and wish to respond.

The Cultural Resources Department has reviewed the project and concluded that it is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we have a cultural interest and authority in the proposed project area.

Based on the information provided, the Tribe has concerns that the project could impact known archaeological/cultural sites. Please send us the cultural resource study for this project.

Should you have any questions, please contact the following individual:

James Sarmento, Cultural Resources Manager
Yocha Dehe Wintun Nation
Office: (530) 723-0452
Email: jsarmento@yochadehe-nsn.gov

Please refer to identification number YD – 05302017-01 in any correspondence concerning this project.

Thank you for providing us with this notice and the opportunity to comment.

Sincerely,

Marilyn Delgado
Cultural Resources Director

Appendix F

Preliminary Geotechnical Report

COOKE PROPERTY
VALLEJO, CALIFORNIA

PRELIMINARY GEOTECHNICAL REPORT

Submitted to
Mr. Jeb Elmore
Lewis Land Developers, LLC
9216 Kiefer Boulevard
Sacramento, CA 95816

Prepared by
ENGEO Incorporated

April 17, 2017

Project No.
13495.000.000

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ENGEO
Expect Excellence

Project No.
13495.000.000

April 17, 2017

Mr. Jeb Elmore
Lewis Land Developers, LLC
9216 Kiefer Boulevard
Sacramento, CA 95816

Subject: Cooke Property
Vallejo, California

PRELIMINARY GEOTECHNICAL REPORT

Dear Mr. Elmore:

With your authorization, we prepared this preliminary geotechnical report for the Cooke Property located in Vallejo, California. This report presents our geotechnical observations and preliminary conclusions and recommendations. We include preliminary site grading, drainage, and foundation recommendations for use during land planning.

Based upon our initial assessment, it is our opinion that the proposed residential and commercial development is feasible from a geotechnical standpoint. Design-level explorations should be conducted prior to site development once more detailed land plans have been prepared.

We are pleased to have been of service on this project and are prepared to consult further with you and your design team as the project progresses. If you have any questions regarding this report, please contact us.

Sincerely,

ENGEO Incorporated

Travis Chatters

Mark Gilbert, GE

TABLE OF CONTENTS

Letter of Transmittal

1.0 INTRODUCTION 1

1.1 PURPOSE AND SCOPE 1
1.2 PROJECT LOCATION AND DESCRIPTION 1
1.3 PROJECT DESCRIPTION 2

2.0 FINDINGS 2

2.1 SITE BACKGROUND 2
2.2 FIELD EXPLORATION 3
2.3 GEOLOGY AND SEISMICITY 3
2.3.1 Geology 3
2.3.2 Seismicity 3
2.4 SURFACE CONDITIONS 4
2.5 SUBSURFACE CONDITIONS 5
2.6 GROUNDWATER CONDITIONS 6
2.7 LABORATORY TESTING 6

3.0 CONCLUSIONS 6

3.1 EXPANSIVE SOIL 6
3.2 EXISTING FILL 6
3.3 EXCAVATABILITY 7
3.4 FLOODING 7
3.5 SOIL CORROSION POTENTIAL 7
3.6 SEISMIC HAZARDS 8
3.6.1 Ground Rupture 8
3.6.2 Ground Shaking 8
3.6.3 Ground Lurching 8
3.6.4 Liquefaction 9
3.6.5 Lateral Spreading and Earthquake-Induced Landsliding 9
3.7 2013 CBC SEISMIC DESIGN PARAMETERS 9

4.0 PRELIMINARY RECOMMENDATIONS 10

4.1 EARTHWORK 10
4.1.1 Demolition and Stripping 10
4.1.2 Existing Fill Removal 10
4.1.3 Acceptable Fill 10
4.1.4 Differential Fill Thickness 11
4.1.5 Fill Compaction 11
4.1.6 Surface Drainage 11
4.1.7 Landscaping Considerations 12
4.1.8 Utilities 12
4.2 FOUNDATION DESIGN 13
4.2.1 Retail Buildings 13
4.2.2 Residential Buildings (Post-Tensioned Mat Foundation Design) 13
4.3 PAVEMENTS 13

5.0 FUTURE STUDIES 14

TABLE OF CONTENTS (Continued)

6.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS 14

FIGURES

Figure 1 – Vicinity Map
Figure 2 – Site Plan
Figure 3 – Regional Geology Map
Figure 4 – Earthquake Fault Zone Map
Figure 5 – Regional Faulting and Seismicity Map

APPENDIX A – Test Pit Logs

APPENDIX B – Laboratory Analysis

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

ENGEO prepared this geotechnical report for preliminary design of the proposed residential and commercial development in Vallejo, California. As outlined in our agreement dated November 1, 2016, Lewis Land Developers, LLC authorized ENGEO to conduct the following scope of services:

The scope of our services included:

- A site visit.
- Review of published geologic maps and readily available geotechnical reports for the site.
- Excavation of eight test pits and one hand auger.
- Preparation of this report identifying potential geotechnical hazards.

For our use, we received the following:

1. Preliminary Site Plan prepared by MacKay & Somps, dated October 26, 2016.
2. Preliminary title report prepared by First American Title Company, dated September 7, 2016, which shows the property limits of the eastern and western parcel as well as approximate locations of the existing gas and sewer lines that are located within the eastern parcel.
3. Jurisdictional Delineation Map, prepared by Olberding Environmental Inc., which shows jurisdictional wetland locations through the eastern parcel.

Grading plans and topographic surveys have not yet been prepared for the project. This report was prepared for the exclusive use of our client and their consultants for preliminary design of this project. If any changes are made in the character, design or layout of the development, we must be contacted to review the preliminary conclusions and recommendations contained in this report to determine whether modifications are necessary. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without our express written consent.

1.2 PROJECT LOCATION AND DESCRIPTION

The subject property is located southeast of the intersection of Turner Parkway and Admiral Callaghan Lane and southeast of Coach Lane in Vallejo, California, as shown on the Vicinity Map, Figure 1 (attached). As shown in Figure 1.2-1, the property is split by Interstate 80 into two parcels, one to the west of Interstate 80, and the other to the east. The eastern approximately 51.3-acre parcel is located south of Turner Parkway and east of Admiral Callaghan Lane. The western approximately 1.5–acre parcel is located

FIGURE 1.2-1: Cooke Property - Eastern & Western Parcels

at the end of Coach Lane. The properties are identified by Assessor's Parcel Numbers (APN) 814-900-10 and 523-202-50 for the eastern and western sites, respectively.

1.3 PROJECT DESCRIPTION

Based on our discussions with you and review of the information provided, we understand that the site is to be developed for residential and commercial use. Based on a conceptual layout provided, as shown in Figure 1.3-1, development is primarily planned on the eastern parcel. Development along the western side is to include a major retail building, shops, a rest area, and a gas station, while the eastern portion is to include residential housing, several driveways, paseos, a recreation center with a pool, and a water quality basin. The central portion of the development center is planned for open space. Development plans for the western parcel are not yet known.

FIGURE 1.3-1: Preliminary Site Plan – Eastern Parcel

No grading plans have been developed at this time; however, the conceptual layout suggests the site will be graded to match the adjacent streets. This would require cuts up to approximately 20 feet and fills up to approximately 12 feet. We anticipate the commercial areas will include typical paved parking, drive aisles, trash enclosures, and exterior flatwork and the retail building and shops will be typical one-story retail construction. We anticipate the residential area to single or multi-family one- to two-story wood-frame structures with associated parking, sidewalks, and underground utilities.

2.0 FINDINGS

2.1 SITE BACKGROUND

Our review of historical aerial photographs and topographic maps indicates that the eastern parcel was unoccupied as far back as 1937 and was used for grazing until the early 1970s. the aerial photographs show that the western parcel had several structures located on site from the mid-1940s to the early 1980s. Parts of the foundations for these structures were visible during our site reconnaissance throughout the western parcel as shown in Photo 2.1-1.

PHOTO 2.1-1: Existing Foundations located in the Western Parcel

2.2 FIELD EXPLORATION

Our field exploration included excavation of eight test pits (TP) on the eastern parcel and one hand auger (TPHA) on the western parcel, as shown on the Site Plan, Figure 2. We performed our field exploration on November 15, 2016. The location and elevations of our explorations are approximate and were located using handheld GPS; they should be considered accurate only to the degree implied by the method used.

An ENGEO representative observed the excavations and logged the subsurface conditions. We retained a Case 590 Backhoe to excavate the test pits to a maximum depth of about 14 feet. Test pits were backfilled loosely with soil removed during excavation; during construction, test pits will need to be excavated and recompacted (unless in planned cut zone). The hand auger was backfilled with site soils. We obtained bulk and baggie soil samples from the test pit and hand auger locations.

We used the field logs to develop the report logs in Appendix A. The logs depict subsurface conditions at the exploration locations for the date of the exploration; however, subsurface conditions may vary with time.

2.3 GEOLOGY AND SEISMICITY

2.3.1 Geology

The site is located within the Coast Ranges geologic province of California, a series of northwest-trending ridges and valleys. Bedrock in the region has been folded and faulted during regional uplift beginning in the Pliocene period, about 4 million years before present. As shown in the Geologic Map of the northeastern San Francisco Bay region (Graymer, 2002), the site is mapped as Late Cretaceous-age undivided sandstone, siltstone, and shale (Ku) consisting of brownish-gray, fine- to coarse-grained, thin bedded to massive sandstone and greenish-gray to black shale and silty shale, in addition to Pleistoncene-age alluvial fan deposits (Qpf) consisting of poorly sorted, moderately to poorly bedded sand, gravel, silt and clay deposited in gently sloping alluvial fans.

2.3.2 Seismicity

The site is located in a region that contains numerous active earthquake faults. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. An active fault is defined by the California Geological Survey as one that has had surface displacement within Holocene time (about the last 11,000 years). We used the United States Geologic Survey (USGS) 2008 National Seismic Hazard Maps Fault Parameters to determine the distances and potential magnitudes of active faults near the subject site. Nearby active faults within 50 miles of the site and their estimated maximum earthquake magnitudes based on the USGS fault database are provided in the following table.

TABLE 2.3.2-1: Regional Faults
Latitude: 38.128607 Longitude: -122.224806

FAULT NAME	APPROXIMATE DISTANCE (MILES)	ESTIMATE OF MAXIMUM MAGNITUDE*
West Napa	2.7	6.7
Green Valley Connected	6.3	6.8
Hayward Rodgers Creek RC+HN+HS	11.1	7.5
Great Valley 5, Pittsburg Kirby Hills	16.5	6.7
Great Valley 4b, Gordon Valley	18.6	6.8
Mount Diablo Thrust	20.1	6.7
Hunting Creek-Berryessa	22.4	7.1
Calaveras CN+CC+CS	24.5	7.0
Greenville Connected	27.2	7.0
N. San Andreas SAO+SAN+SAP+SAS	29.0	7.9
Great Valley 4a, Trout Creek	30.4	6.6
San Gregorio Connected	32.8	7.5
Point Reyes	35.6	6.9
Great Valley 3, Mysterious Ridge	39.9	7.1
Maacama-Garbeville	40.0	7.4
Great Valley 7	46.9	6.9
Monte Vista – Shannon	47.7	6.5

*Based on Ellsworth

Numerous small earthquakes occur every year in the Bay Region, and larger earthquakes have been recorded and can be expected to occur in the future. Figure 4 shows the approximate locations of these faults and significant historic earthquakes recorded within the Bay Region.

2.4 SURFACE CONDITIONS

Since topographic information was not available, we reviewed published USGS topographic maps. According to this information, the eastern parcel site grades range from approximately Elevation 85 to 130 feet above mean sea level, while the western parcel is situated at approximate Elevation 97 feet above mean sea level. The majority of surface drainage for the eastern parcel appears to flow south to north through the center of the site.

At the time of our field exploration, much of the eastern parcel, as shown in Photo 2.4-1, was covered with grasses and tall shrubs. Site topography included a hill, approximately 20 feet in height, covering the western half of the site. The hill sloped to the east into a natural drainage swale that splits the property in a north-south direction; drainage appears to flow towards the north. The eastern side generally sloped downward towards the north with two swales that fed into the center swale. We did not observe any water in the swales during our field exploration.

PHOTO 2.4-1: Eastern Parcel

The western parcel was generally flat with a 6 to 10 foot high 2:1 (horizontal:vertical) slope along the western border, as shown in Photo 2.4-2. The western parcel was covered with grass and several large trees and bushes.

PHOTO 2.4-2: Western Parcel

2.5 SUBSURFACE CONDITIONS

Except for Test Pit 5 (TP-5), our test pit explorations generally encountered stiff to hard lean clays and elastic silts underlain by weak to very strong, highly to slightly weathered siltstone, claystone, and sandstone. Undocumented fill was encountered in TP-5 from 0 to 7 feet below existing grade; the fill generally consisted of clayey sand with some debris.

We collected and tested representative samples for Plasticity Index (PI) and Expansion Index (EI) that resulted in PI's ranging from 21 to 61 and EI's ranging from 67 to 122. These lab test results indicate soil with moderate to very high plasticity and medium to high shrink/swell potential.

The siltstone and claystone encountered was generally medium strong and moderately weathered, with the exception of TP-1, which encountered highly weathered, medium weak siltstone and claystone. In general, the siltstone and claystone tended to be closely to moderately fractured with thin to very thin bedding. The sandstone encountered was generally strong to very strong and slightly weathered with moderate fractures.

Refusal to backhoe excavation was encountered in two of the eight test pits, as summarized in in Table 2.5-1, below. Refusal occurred in sandstone.

TABLE 2.5-1: Test Pit Depths

TEST PIT	DEPTH OF EXPLORATION (FEET)
TP-1	10
TP-2	10
TP-3	Refusal at 4½ feet
TP-4	10
TP-5	14
TP-6	Refusal at 2½ feet
TP-7	11
TP-8	10
TPHA-1 (Hand Auger)	2½

The test pit logs include the specific subsurface conditions at each location. We include our exploration logs in Appendix A.

2.6 GROUNDWATER CONDITIONS

We did not observe static or perched groundwater in any of our subsurface explorations.

Fluctuations in the level of groundwater may occur due to variations in rainfall, irrigation practice, and other factors not evident at the time of our exploration.

2.7 LABORATORY TESTING

We performed laboratory tests on selected soil samples to evaluate their engineering properties. For this project, we performed moisture content, plasticity index, expansion index, and soil corrosion potential testing. Moisture contents and plasticity indexes are recorded on the test pit logs in Appendix A; other laboratory data is included in Appendix B.

3.0 CONCLUSIONS

From a geotechnical engineering viewpoint, in our opinion, the site is suitable for the proposed residential and commercial development. The primary geotechnical concerns that could affect development on the site: (1) the presence of potentially expansive near-surface soil, (2) the presence of non-engineered fill and, (3) excavatability and processing of the shallow bedrock. We summarize our conclusions below.

3.1 EXPANSIVE SOIL

We observed potentially expansive clay, elastic silt with claystone, and claystone near the surface of the site in the test pits. Our laboratory testing indicates that these soils exhibit moderate to high shrink/swell potential with variations in moisture content. Expansive soils change in volume with changes in moisture. They can shrink or swell and cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to volume changes associated with expansive soils can be reduced by: (1) using a rigid mat foundation that is designed to resist the settlement and heave of expansive soil, (2) deepening the foundations to below the zone of significant moisture fluctuation. Slabs-on-grade also require protection from the potentially damaging effects of expansive soil. This is typically accomplished by placing a blanket of non-expansive fill on the building pad.

Retail buildings may be supported on deepened footings combined with slabs-on-grade underlain by non-expansive fill. Residential structures may be supported on post-tensioned mat foundations. Preliminary foundation recommendations are provided in Section 4.2.

Specific grading recommendations for compaction of expansive soils at the site should be provided in a design-level study. The purpose of these recommendations is to reduce the swell potential of the clay by compacting the soil at a high moisture content and controlling the amount of compaction. Preliminary earthwork recommendations are presented in Section 4.1 of this report.

3.2 EXISTING FILL

Test Pit 5, located in the northeast potion of the eastern parcel, encountered approximately 7 feet of fill with some debris. While the lateral extent of this fill is unknown, review of aerial photos and site observations suggest that this fill may extend along the northern border of the

site, parallel to Turner Parkway. The lateral extent and depth of existing fill should be further explored as part of a design-level geotechnical study.

Non-engineered fills can undergo excessive settlement, especially under new fill or building loads. Because the fill contained some debris, we recommend complete removal of the existing fill, as presented in Section 4.1.2.

3.3 EXCAVATABILITY

We used a 590 CASE backhoe during our exploratory work and were able to excavate to the target test pit depth of 10 feet at six of the eight exploration locations. Backhoe refusal was encountered at locations TP-3 and TP-6 at depths of 4½ and 2½ feet below existing grade. Based on these results, it is our opinion that conventional grading equipment will likely be able to excavate the soil, siltstone, and claystone with only moderate effort; however, larger equipment and greater effort will be needed for excavations extending into the sandstone. We recommend further exploration be performed as part of the design level geotechnical study to further evaluate excavatability.

We provide the above excavatability information for general planning purposes only. This information is not intended for bidding purposes.

3.4 FLOODING

The project Civil Engineer should review pertinent information relating to possible flood levels for the subject site based on final pad elevations and provide appropriate design measures for development of the project, if necessary.

3.5 SOIL CORROSION POTENTIAL

As part of this study, we obtained representative soil sample and submitted to a qualified analytical lab for determination of pH, resistivity, sulfate, and chloride. The results are included in Appendix D and summarized in the table below.

TABLE 3.5-1: Corrosivity Test Results

SAMPLE LOCATION	DEPTH (FEET)	PH	RESISTIVITY (OHMS-CM)	CHLORIDE (MG/KG)	SULFATE (MG/KG)
TP-1	1	6.27	0.96	18.1	15.5
TP-6	1	5.86	1.42	27.8	18.9

The 2013 CBC references the 2011 American Concrete Institute Manual, ACI 318-11, Chapter 4, Sections 4.2.1 for structural concrete requirements. ACI Table 4.2.1 provides the following exposure categories and classes, and concrete requirements in contact with soil based upon the exposure risk.

TABLE 3.5-2: ACI Table 4.2.1: Exposure Categories and Classes

			WATER- SOLUBLE SULFATE IN SOIL % BY WEIGHT*	DISSOLVED SULFATE IN WATER MG/KG (PPM)**
S Sulfate	Not applicable	S0	$SO_4 < 0.10$	$SO_4 < 150$
	Moderate	S1	$0.10 \leq SO_4 < 0.20$	$150 \leq SO_4 \leq 1,500$ seawater
	Severe	S2	$0.20 \leq SO_4 \leq 2.00$	$1,500 \leq SO_4 \leq 10,000$
	Very severe	S3	$SO_4 > 2.00$	$SO_4 > 10,000$

*Percent sulfate by mass in soil determined by ASTM C1580
**Concentration of dissolved sulfates in water in ppm determined by ASTM D516 or ASTM D4130

In accordance with the criteria presented in the above table, these soils are categorized as the S0 sulfate exposure class. Cement type, water-cement ratio, and concrete strength, are not specified for these ranges. Based on the resistivity measurements, the soils are not considered corrosive to buried metal piping.

3.6 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking, soil liquefaction, and lateral spreading. These hazards are discussed in the following sections.

Based on our review of topographic and lithologic data, it is our opinion that the risk of regional subsidence or uplift, tsunamis, landslides or seiches occurring at the site is low.

3.6.1 Ground Rupture

As shown on Figure 4, the site is not located within a State of California Earthquake Fault Hazard Zone (1982). Therefore, since no known active faults cross the site, it is our opinion that ground rupture is not likely to occur at the site.

3.6.2 Ground Shaking

An earthquake of moderate to high magnitude generated within the San Francisco Bay Region, similar to those that have occurred in the past, could cause considerable ground shaking at the site. To mitigate the shaking effects, all structures should be designed using sound engineering judgment and the latest California Building Code (CBC) requirements as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead and live loads. The code-prescribed lateral forces are generally substantially smaller than the expected peak forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

3.6.3 Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form. The potential for the formation of these cracks is considered greater at contacts between deep alluvium or fill and bedrock. Such an occurrence is possible at the site as in other locations in the Bay Area Region, but based in the site location, it is our opinion that the offset is expected to be minor.

3.6.4 Liquefaction

The site is not located within a State of California Seismic Hazard Zone (CGS, 2009) for areas that may be susceptible to liquefaction. Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soil most susceptible to liquefaction is clean, loose, saturated, uniformly graded, fine-grained sand. Empirical evidence indicates that loose to medium dense gravel, silty sand, low-plasticity silt, and some low-plasticity clay are also potentially liquefiable.

As described previously, the surficial soil types include lean clays and elastics silts. Additionally, the soil is underlain by relatively shallow siltstone, claystone, and sandstone. Due to the shallow bedrock at the site, we do not anticipate soil liquefaction to be a concern for development.

3.6.5 Lateral Spreading and Earthquake-Induced Landsliding

Lateral spreading and earthquake-induced landsliding involve lateral ground movements caused by seismic shaking. These lateral ground movements are often associated with a weakening or failure of an embankment or soil mass overlying a layer of liquefied sands or weak soils. Due to shallow bedrock, lateral spreading is unlikely at the site, in our opinion.

3.7 2013 CBC SEISMIC DESIGN PARAMETERS

We provide the 2013 California Building Code (CBC) seismic parameters in Table 3.7-1 below.

TABLE 3.7-1: 2013 CBC Seismic Design Parameters

PARAMETER	VALUE
Site Class	D
Mapped MCE_R Spectral Response Acceleration at Short Periods, S_S (g)	1.69
Mapped MCE_R Spectral Response Acceleration at 1-second Period, S_1 (g)	0.61
Site Coefficient, F_A	1.00
Site Coefficient, F_V	1.50
MCE_R Spectral Response Acceleration at Short Periods, S_{MS} (g)	1.69
MCE_R Spectral Response Acceleration at 1-second Period, S_{M1} (g)	0.91
Design Spectral Response Acceleration at Short Periods, S_{DS} (g)	1.13
Design Spectral Response Acceleration at 1-second Period, S_{D1} (g)	0.61
Mapped MCE Geometric Mean (MCE_G) Peak Ground Acceleration, PGA (g)	0.64

4.0 PRELIMINARY RECOMMENDATIONS

4.1 EARTHWORK

The following preliminary recommendations are for initial land planning and preliminary estimating purposes. Final recommendations regarding site grading and foundation construction will be provided after additional site-specific exploration has been undertaken.

4.1.1 Demolition and Stripping

Site development will commence with the removal of buried structures, including abandoned utilities and septic tanks and their leach fields, if any exist. All debris should be removed from any location to be graded, from areas to receive fill or structures, or those areas to serve as borrow. The depth of removal of such materials should be determined by the Geotechnical Engineer in the field at the time of grading.

Existing vegetation and pavements (asphalt concrete/concrete and underlying aggregate base) should be removed from areas to receive fill, or structures, or those areas to serve for borrow. Tree roots should be removed down to a depth of at least 3 feet below existing grade. The actual depth of tree root removal should be determined by the Geotechnical Engineer's representative in the field. Subject to approval by the Landscape Architect, strippings and organically contaminated soil can be used in landscape areas. Otherwise, such soils should be removed from the project site. Any topsoil that will be retained for future use in landscape areas should be stockpiled in areas where it will not interfere with grading operations.

All excavations from demolition and stripping below design grades should be cleaned to a firm undisturbed soil surface determined by the Geotechnical Engineer. This surface should then be scarified, moisture conditioned, and backfilled with compacted engineered fill. The requirements for backfill materials and placement operations are the same as for engineered fill.

No loose or uncontrolled backfilling of depressions resulting from demolition and stripping is permitted.

4.1.2 Existing Fill Removal

We recommend that any existing fill be removed to competent native soil. The excavated soil may be reused as engineered fill provided it meets the requirements under Acceptable Fill. We encountered fill at TP-5 to a depth of approximately 7 feet; the lateral extent and depth of fill is expected to vary.

4.1.3 Acceptable Fill

We anticipate that onsite soil and rock material is suitable as fill material provided it is processed to remove concentrations of organic material, debris, and particles greater than 8 inches in maximum dimension. Boulders larger than 8 inches may be placed in deeper portions of fills provided that:

- They are located at least 2 feet below any planned excavations limits (i.e. for utilities or foundations).

- They are placed individually and not nested together.

- The contractor can achieve acceptable compaction adjacent to the boulders, as evaluated by ENGEO.

Imported fill materials should meet the above requirements and have a plasticity index less than 12 and at least 20 percent passing the No. 200 sieve. Allow ENGEO to sample and test proposed imported fill materials at least 5 days prior to delivery to the site.

4.1.4 Differential Fill Thickness

Differential building movements may result from conditions where building pads have significant differentials in fill thickness. We recommend that the differential fill thickness across any lot or building be no greater than 10 feet. Local subexcavation of soil material and replacement with compacted fill may be needed to achieve this recommendation.

4.1.5 Fill Compaction

For land planning and cost estimating purposes, we provide the following compaction recommendations for general fill areas:

Test Procedures:	ASTM D-1557.
Required Moisture Content:	Not less than 4 percentage points above optimum moisture content for the native expansive clays, elastic silts, or claystone; not less than 1 percentage point above optimum for import and other soil.
Minimum Relative Compaction:	Between 87 and 92 percent for the native expansive clays, elastic silts, or claystone; not less 90 percent for import and other soil.

Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material (ASTM D1557). Additional compaction requirements may be required for deeper fills and retaining wall backfill.

4.1.6 Surface Drainage

The building pads must be positively graded at all times to provide for rapid removal of surface water runoff from the foundation systems and to prevent ponding of water under floors or seepage toward the foundation systems at any time during or after construction. Ponding of stormwater must not be permitted on the building pads during prolonged periods of inclement weather. All surface water should be collected and discharged into the storm drain system. Landscape mounds must not interfere with this requirement.

All roof stormwater should be collected and directed to downspouts. Stormwater from roof downspouts should be directed to a solid pipe that discharges to the street or to an approved outlet or onto an impervious surface, such as pavement that will drain at a 2 percent slope gradient.

Due to the generally high fines content anticipated in the near-surface site materials, the site soils encountered are not expected to have adequate permeability values to handle stormwater infiltration in grassy swales or permeable pavers. Therefore, best management practices should assume that little stormwater infiltration will occur at the site.

4.1.7 Landscaping Considerations

Sprinkler systems should not be installed where they may cause ponding or saturation of foundation soils. Ponding or saturation of foundation soils will cause soil swell, consequent loss of strength, and movement of the foundations and slabs.

Irrigation of landscaped areas should be strictly limited to that necessary to sustain vegetation. Excessive irrigation could result in saturation, weakening, and swelling of foundation soils. The Landscape Architect and prospective owners should be informed of the surface drainage requirements included in this report.

4.1.8 Utilities

Pipe zone backfill (i.e., material beneath and immediately surrounding the pipe) may consist of a well-graded import or native material less than ¾ inch (2 centimeters) in maximum dimension. Trench zone backfill (i.e., material placed between the pipe zone backfill and the ground surface) may consists of native soil compacted in accordance with recommendations for engineered fill. On a preliminary basis, we recommend that trench backfill be compacted to minimum 90 percent relative compaction at a moisture content at least 3 percentage points above optimum (ASTM D1557).

Where import material is used for pipe zone backfill, we recommend that it consist of fine- to medium grained sand or a well-graded mixture of sand and gravel and that this material not be used within 2 feet of finish grades. In general, uniformly graded gravel should not be used for pipe or trench zone backfill due to the potential for migration of (1) soil into the relatively large void spaces present in the type of material; and (2) water along trenches backfilled with this type of material. All utility trenches entering buildings and paved areas must be provided with an impervious seal consisting of native materials or concrete were the trenches pass under structure perimeters or curb lines. The impervious plug should extend at least 3 feet to either side of the crossing. This is to prevent surface water percolation into the sands under foundations and pavements where such water would remain trapped in a perched condition, allowing clays to develop their full expansion potential.

Utility trenches should not be located upslope of any foundation areas unless placement, depth, and backfill material to be used are reviewed by the Geotechnical Engineer. Care should be exercised where utility trenches are located beside foundation areas. Utility trenches constructed parallel to foundations should be located entirely above a plane extending down from the lower edge of the footing at an angle of 45 degrees. Utility companies and Landscape Architects should be made aware of this information.

Utility trenches in areas to be paved should be backfilled to the specifications provided in this report for engineered fil. Compaction of trench backfill by jetting shall not be allowed at this site.

4.2 FOUNDATION DESIGN

4.2.1 Retail Buildings

We anticipate that retail structures may be supported on conventional continuous and isolated spread footings bearing in competent native soil or compacted fill. Minimum footing depths will likely be at least 24 inches and minimum footing widths will likely be in the range of 12 to 18 inches, depending on the structural loading. These footings could be designed to support a maximum allowable dead plus live bearing pressure of 3,500 pounds per square foot (psf). This may be increased by one-third for the short-term effects of wind or seismic loading.

The floor may be constructed with a concrete slab-on-grade and to reduce the risk of structural damage associated with the expansive soil conditions, we recommend that the upper 2 feet of building pad be constructed of non-expansive fill extending to at least 10 feet laterally beyond the building edge. Non-expansive fill is defined as having a plasticity index less than or equal to 12. Onsite soil or imported fill may be used as non-expansive fill provided it meets the recommendations for Acceptable Fill and has a PI less than or equal to 12. As an alternative to importing non-expansive fill, it may be cost effective to lime treat the upper 2 feet of the finished building pad.

4.2.2 Residential Buildings (Post-Tensioned Mat Foundation Design)

We anticipate that single or multi-family one- to two-story wood-frame structures may be supported on post-tensioned mat foundations bearing in compacted fill. A minimum mat thickness of 10 inches should be anticipated for preliminary purposes. A maximum allowable bearing pressure of 1,000 psf for dead-plus-live loads, which may be increased by one third when considering total loads including wind or seismic, could also be incorporated for initial design purposes. We anticipate that structural mats constructed on swelling soils will move differentially; therefore, structural mats may require stiffening to reduce differential movements due to swelling/shrinkage to a value compatible with the type of structure that will be constructed. Additional laboratory testing and engineering analysis should be performed in a design level geotechnical study.

4.3 PAVEMENTS

Based on the relatively high clay content of the near surface soils encountered in our explorations and our experience with nearby developments, we judged an R-value of 5 to be appropriate for preliminary pavement design. Using a preliminary design R-value of 5 and Topic 633 of the Caltrans Highway Design Manual (including the asphalt factor of safety), we developed the following pavement sections presented in Table 4.3-1 below.

TABLE 4.3-1: Preliminary Pavement Sections

TRAFFIC INDEX	HMA (INCHES)	AB (INCHES)
5.0	3	10
6.0	3½	13
7.0	4	15½

Note: HMA – Hot Mix Asphalt
AB – Caltrans Class 2 aggregate base (R-value of 78 or greater)

The above preliminary pavement sections are provided for estimating only. We recommend the actual subgrade material should be tested for R-value and the Traffic Index be confirmed by the Civil Engineer.

5.0 FUTURE STUDIES

A site-specific geotechnical exploration should be performed as part of the design process. The exploration would include borings or test pits and laboratory soil testing to provide data for preparation of specific recommendations for design of grading, foundations, and drainage for the proposed development. The exploration will also allow for more detailed evaluations of the geotechnical issues discussed below and afford the opportunity to provide recommendations regarding techniques and procedures to be implemented during construction to mitigate potential geotechnical/geological hazards.

Due to shallow backhoe refusal on sandstone, a seismic refraction survey combined with additional exploration may also be beneficial in refining development costs.

6.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report presents preliminary geotechnical recommendations for design of the improvements discussed in Section 1.3 for the Cooke Property project. If changes occur in the nature or design of the project, we should be allowed to review this report and provide additional recommendations, if any. It is the responsibility of the owner to transmit the information and preliminary recommendations of this report to the appropriate organizations or people involved in design of the project, including but not limited to developers, owners, buyers, architects, engineers, and designers. The preliminary conclusions and recommendations contained in this report are solely professional opinions and are valid for a period of no more than 2 years from the date of report issuance.

We strived to perform our professional services in accordance with generally accepted geotechnical engineering principles and practices currently employed in the area; no warranty is expressed or implied. There are risks of earth movement and property damages inherent in building on or with earth materials. We are unable to eliminate all risks or provide insurance; therefore, we are unable to guarantee or warrant the results of our services.

This report is based upon field and other conditions discovered at the time of report preparation. We developed this report with limited subsurface exploration data. We assumed that our subsurface exploration data is representative of the actual subsurface conditions across the site. Considering possible underground variability of soil, rock, stockpiled material, and groundwater, additional costs may be required to complete the project. We recommend that the owner establish a contingency fund to cover such costs. If unexpected conditions are encountered, notify ENGEO immediately to review these conditions and provide additional and/or modified recommendations, as necessary.

Our services did not include excavation sloping or shoring, soil volume change factors, or a geohazard exploration. In addition, our geotechnical exploration did not include work to determine the existence of possible hazardous materials. If any hazardous materials are encountered during construction, then notify the proper regulatory officials immediately.

This document must not be subject to unauthorized reuse, that is, reusing without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time.

Actual field or other conditions will necessitate clarifications, adjustments, modifications or other changes to ENGEO's documents. Therefore, ENGEO must be engaged to prepare the necessary clarifications, adjustments, modifications or other changes before construction activities commence or further activity proceeds. If ENGEO's scope of services does not include onsite construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

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Graymer, R.W., Jones, D.L., and Brabb, E.E., 2002, Geologic map and map database of northeastern San Francisco Bay region, California – most of Solano County and Parts of Napa, Marin, Contra Costa, San Joaquin, Sacramento, Yolo and Sonoma Counties: U.S. Geological Survey, Miscellaneous Field Studies Mao MF-2403, scale 1:100,000.

FIGURES

FIGURE 1 – Vicinity Map
FIGURE 2 – Site Plan
FIGURE 3 – Regional Geology Map
FIGURE 4 – Earthquake Fault Zone Map
FIGURE 5 – Regional Faulting and Seismicity Map

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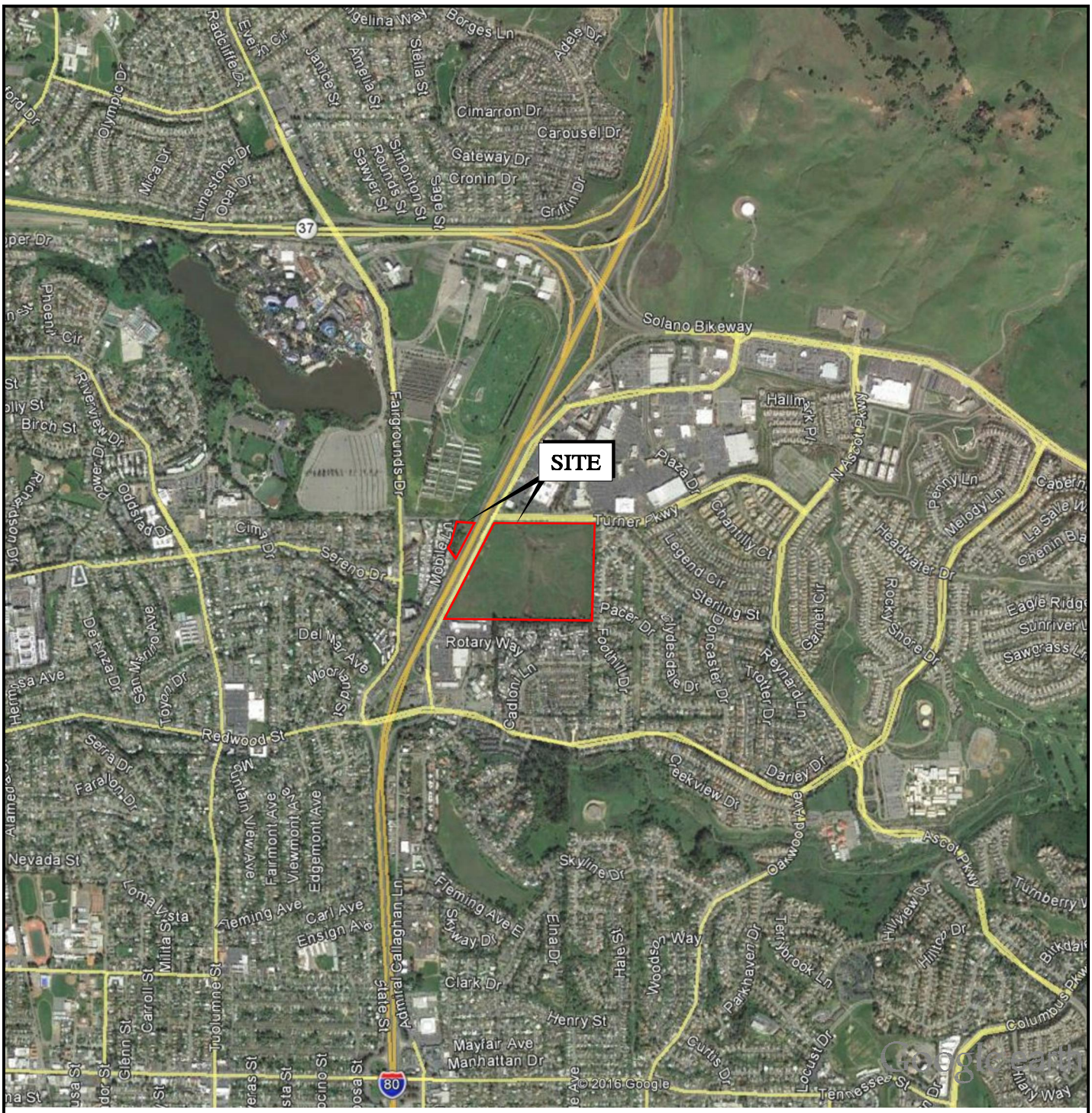

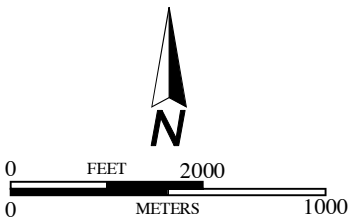

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

ENGEO Expect Excellence

VICINITY MAP

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000		FIGURE NO. 1
SCALE: AS SHOWN		
DRAWN BY: SRP	CHECKED BY: MMG	

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ORIGINAL FIGURE PRINTED IN COLOR

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EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

SITE BOUNDARY

TP-8 10' — TEST PIT SHOWING DEPTH TO BOTTOM (ENGEO, 2016)

HA-1 2.5' — HAND AUGER SHOWING DEPTH TO BOTTOM (ENGEO, 2016)

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

N

0 FEET 400

0 METERS 200

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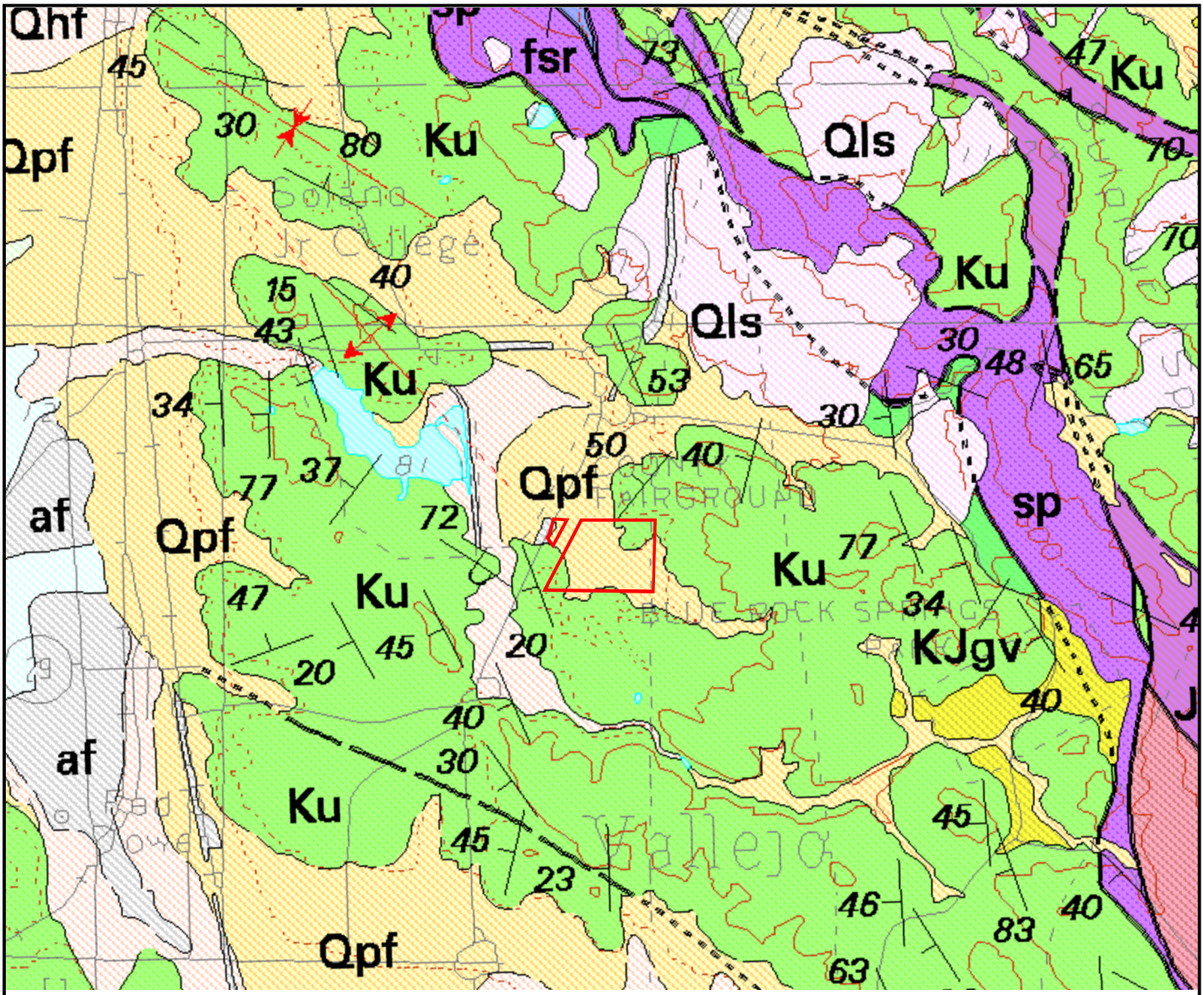
SITE PLAN

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000	FIGURE NO. 2
SCALE: AS SHOWN	
DRAWN BY: SRP	CHECKED BY: MMG

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

SITE BOUNDARY

GEOLOGIC CONTACT-DASHED WHERE GRADATIONAL OR APPROXIMATELY LOCATED

FAULT-DASHED WHERE INFERRED, DOTTED WHERE CONCEALED, QUERIED WHERE EXISTENCE IS DOUBTFUL. SAWTEETH ARE ON UPPER PLATE OF LOW ANGLE THRUST FAULT.

AXIS OF FOLD

ANTICLINE SYNCLINE

STRIKE AND DIP OF STRATA

INCLINED

Qhf	ALLUVIAL FAN DEPOSITS (HOLOCENE)
Qls	LANDSLIDE DEPOSITS (HOLOCENE AND PLEISTOCENE)
Qpf	ALLUVIAL FAN DEPOSITS (LATE PLEISTOCENE)
Ku	UNDIVIDED SANDSTONE, SILTSTONE AND SHALE (LATE CRETACEOUS)
Kjgv	MASSIVE SANDSTONE AND SHALE (EARLY CRETACEOUS AND LATE JURASSIC)

N

0 FEET 2000

0 METERS 1000

BASE MAP SOURCE: GRAYMER, 2001

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REGIONAL GEOLOGY MAP

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000			FIGURE NO. 3
SCALE: AS SHOWN			
DRAWN BY: SRP	CHECKED BY: MMG		

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ORIGINAL FIGURE PRINTED IN COLOR

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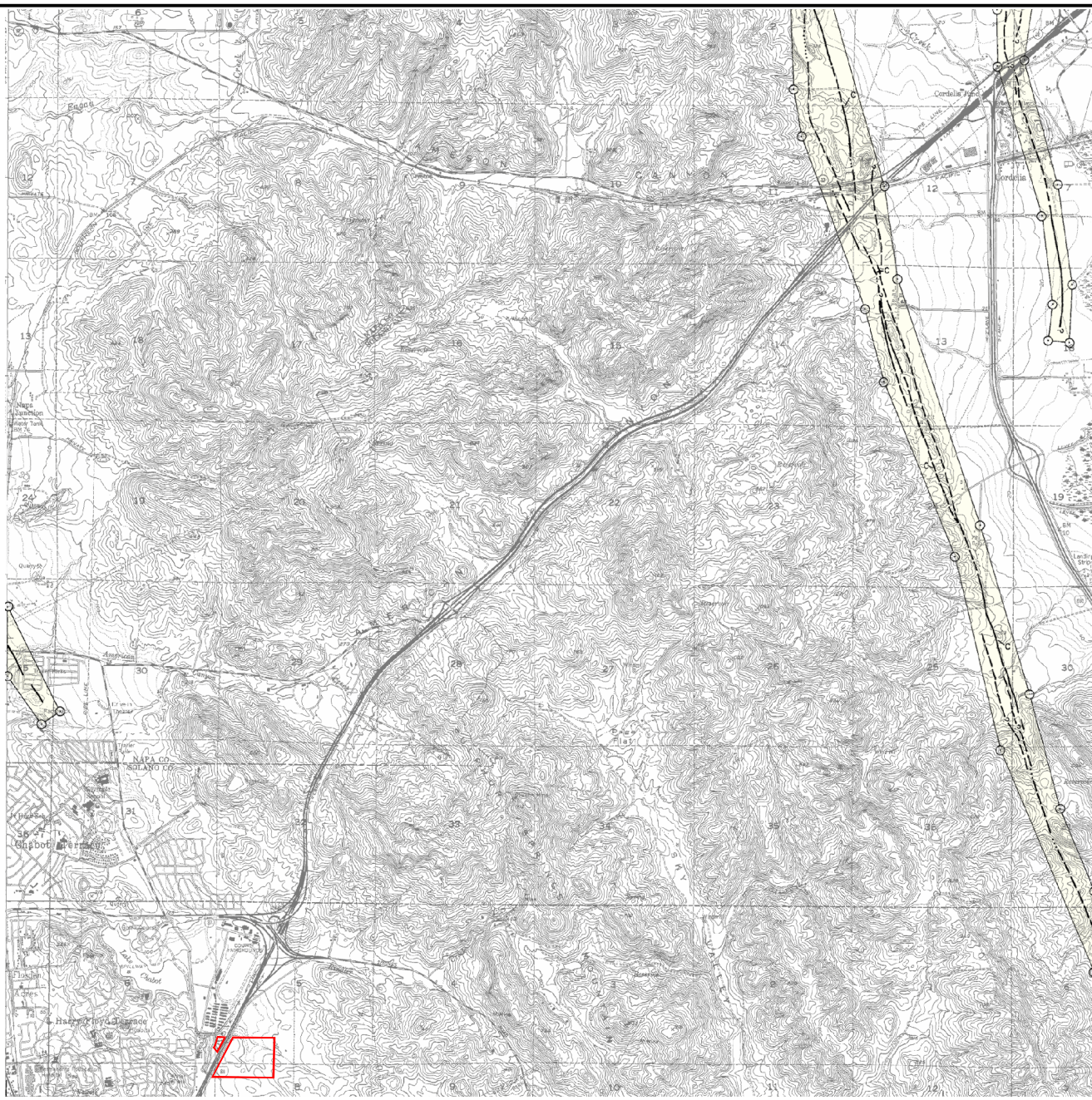

EXPLANATION

SITE BOUNDARY

1906 C / ? — FAULTS CONSIDERED TO HAVE BEEN ACTIVE DURING HOLOCENE TIME AND TO HAVE A RELATIVELY HIGH POTENTIAL FOR SURFACE RUPTURE; SOLID LINE WHERE ACCURATELY LOCATED, LONG DASH WHERE APPROXIMATELY LOCATED, SHORT DASH WHERE INFERRED, DOTTED WHERE CONCEALED; QUERY (?) INDICATES ADDITIONAL UNCERTAINTY. EVIDENCE OF HISTORIC OFFSET INDICATED BY YEAR OF EARTHQUAKE-ASSOCIATED EVENT OR C FOR DISPLACEMENT CAUSED BY CREEP OR POSSIBLE CREEP

EARTHQUAKE FAULT ZONE BOUNDARIES; DELINEATED AS STRAIGHT-LINE SEGMENTS THAT CONNECT ENCIRCLED TURNING POINTS SO AS TO DEFINE EARTHQUAKE FAULT ZONE SEGMENTS

N

0 MILES 1

0 KILOMETERS 2

BASE MAP SOURCE: CDMG, 1993

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EARTHQUAKE FAULT ZONE MAP

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000		FIGURE NO. 4
SCALE: AS SHOWN		
DRAWN BY: SRP	CHECKED BY: MMG	

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ORIGINAL FIGURE PRINTED IN COLOR

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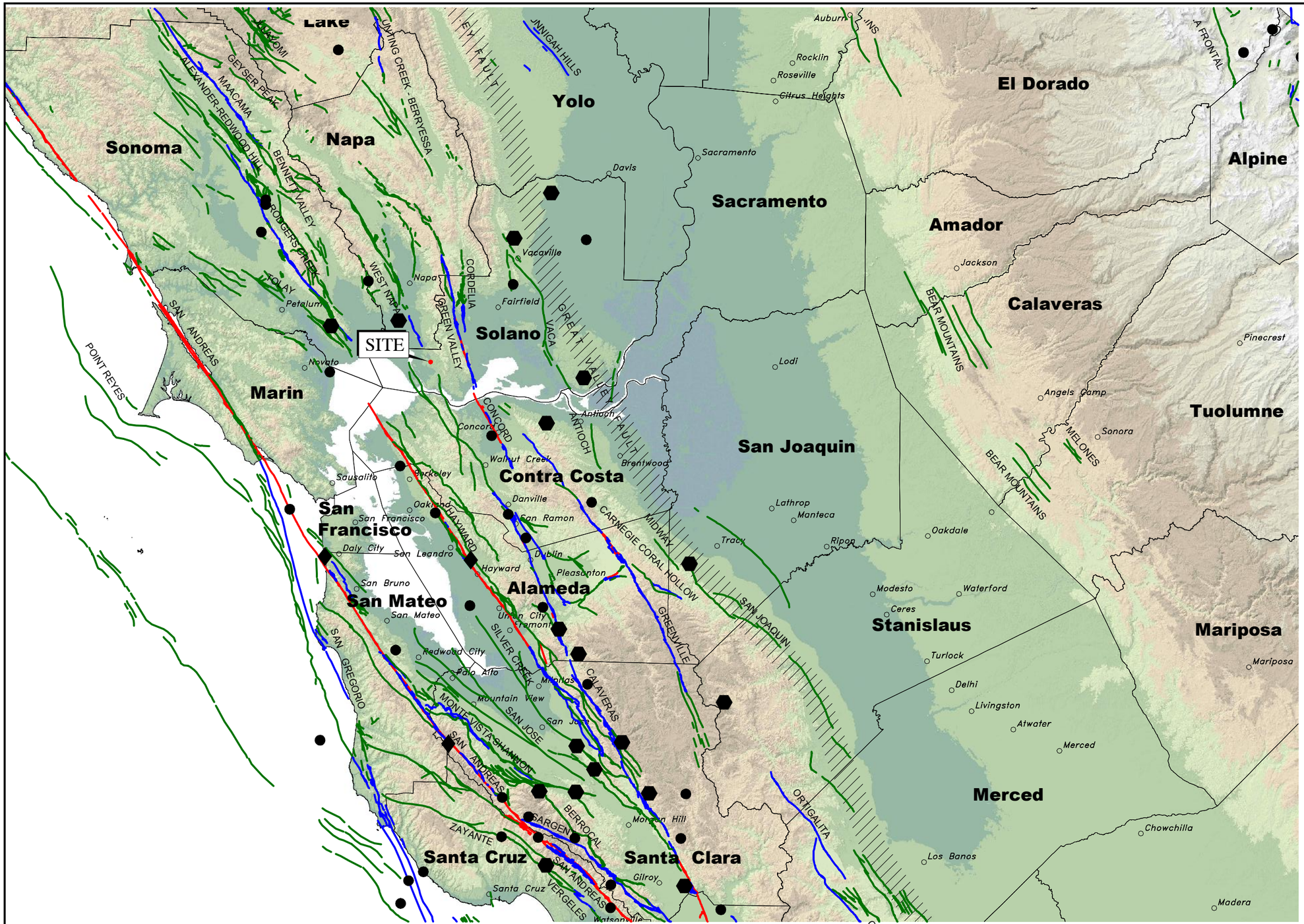

BASE MAP SOURCE:
COLOR HILLSHADE IMAGE BASED ON THE NATIONAL ELEVATION DATASET (NED) AT 30 METER RESOLUTION
U.S.G.S. QUATERNARY FAULT DATABASE, NOVEMBER, 2010
U.S.G.S. HISTORIC EARTHQUAKE DATABASE (1800–2000)

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REGIONAL FAULTING AND SEISMICITY

COOKE PROPERTY
VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000	FIGURE NO 5
SCALE: AS SHOWN	
DRAWN BY: SRP	CHECKED BY: MMG

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ORIGINAL FIGURE PRINTED IN COLOR

APPENDIX A

TEST PIT LOGS

KEY TO BORING LOGS

MAJOR TYPES			DESCRIPTION
COARSE-GRAINED SOILS MORE THAN HALF OF MAT'L LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW - Well graded gravels or gravel-sand mixtures GP - Poorly graded gravels or gravel-sand mixtures
		GRAVELS WITH OVER 12 % FINES	GM - Silty gravels, gravel-sand and silt mixtures GC - Clayey gravels, gravel-sand and clay mixtures
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 5% FINES	SW - Well graded sands, or gravelly sand mixtures SP - Poorly graded sands or gravelly sand mixtures
		SANDS WITH OVER 12 % FINES	SM - Silty sand, sand-silt mixtures SC - Clayey sand, sand-clay mixtures
FINE-GRAINED SOILS MORE THAN HALF OF MAT'L SMALLER THAN #200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50 % OR LESS		ML - Inorganic silt with low to medium plasticity CL - Inorganic clay with low to medium plasticity OL - Low plasticity organic silts and clays
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50 %		MH - Elastic silt with high plasticity CH - Fat clay with high plasticity OH - Highly plastic organic silts and clays
	HIGHLY ORGANIC SOILS		PT - Peat and other highly organic soils

For fine-grained soils with 15 to 29% retained on the #200 sieve, the words "with sand" or "with gravel" (whichever is predominant) are added to the group name.

For fine-grained soil with >30% retained on the #200 sieve, the words "sandy" or "gravelly" (whichever is predominant) are added to the group name.

GRAIN SIZES

U.S. STANDARD SERIES SIEVE SIZE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4 "	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FOOT (S.P.T.)
VERY LOOSE	0-4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	STRENGTH*
VERY SOFT	0-1/4
SOFT	1/4-1/2
MEDIUM STIFF	1/2-1
STIFF	1-2
VERY STIFF	2-4
HARD	OVER 4

SAMPLER SYMBOLS

- Modified California (3" O.D.) sampler
- California (2.5" O.D.) sampler
- S.P.T. - Split spoon sampler
- Shelby Tube
- Continuous Core
- Bag Samples
- Grab Samples
- NR No Recovery

MOISTURE CONDITION

Dry	Dusty, dry to touch
Moist	Damp but no visible water
Wet	Visible freewater

LINE TYPES

- ———— Solid - Layer Break
- – – – – – Dashed - Gradational or approximate layer break

GROUND-WATER SYMBOLS

- ▽ Groundwater level during drilling
- ▼ Stabilized groundwater level

(S.P.T.) Number of blows of 140 lb. hammer falling 30" to drive a 2-inch O.D. (1-3/8 inch I.D.) sampler

* Unconfined compressive strength in tons/sq. ft., asterisk on log means determined by pocket penetrometer

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TEST PIT LOG 1-TP1

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: CASE 590 Backhoe

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 – 2½	ELASTIC SILT (MH) dark brown, stiff, moist, high plasticity	1	52		22.4	2.0*
						4.0*
2	Very stiff					
2½ – 4	ELASTIC SILT WITH CLAYSTONE (MH), dark brown, hard, moist, small fragments up to ½“	3	46		14.8	4.5*
4	Very weak					
4 – 10	SILTSTONE & CLAYSTONE, greenish brown, highly weathered, medium weak, closely fractured, slickendsided claystone					
6	Very thin bedding					
10	Bottom of test pit at 10 feet. No groundwater encountered.					

TEST PIT LOG 1-TP2

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: CASE 590 Backhoe

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 – 1	LEAN CLAY (CL) dark brown, stiff to very stiff, moist, medium plasticity	0		80	21.1	2.75*
						2.5*
1 – 5	LEAN CLAY WITH GRAVEL (CL) grayish brown, very stiff, moist, medium plasticity, fragments of very weak claystone throughout					4.5*
5 – 10	SILTSTONE dark gray, medium strong, moderately weathered, moderately to closely fractured, thin bedding					
10	Bottom of test pit at 10 feet. No groundwater encountered.					

TEST PIT LOG 1-TP3

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: CASE 590 Backhoe

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 – ½	LEAN CLAY (CL) dark brown, stiff, moist, low to medium plasticity, 4" topsoil with roots and organics					
½ - 1½	ELASTIC SILT (MH) dark grayish brown, very stiff, moist, high plasticity (residual soil)	1	45		18.8	2.0*
1½ - 4½	SANDSTONE yellowish brown to red, strong to very strong, slightly weathered, moderately fractured, thinly bedded					
4½	Refusal to excavation at 4½ feet. No groundwater encountered.					

TEST PIT LOG 1-TP4

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: CASE 590 Backhoe

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 – 4	LEAN CLAY (CL) dark brown, stiff to very stiff, moist, low to medium plasticity	1		67	18.3	2.0* 2.5*
2	Hard					4.5+*
4 – 6½	LEAN CLAY WITH SAND (CL) yellowish brown mottled with black, hard, moist, low to medium plasticity, low cohesion, fine sand	5			20.3	4.25*
6	Grades to sandy					
6½ - 10	CLAYEY SAND WITH GRAVEL (SC) orange brown, hard, moist, some sub-rounded cobble up to 8”, black charcoal, fine to coarse grained sand					
10	Bottom of test pit at 10 feet. No groundwater encountered.					

TEST PIT LOG 1-TP5

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: CASE 590 Backhoe

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 – 1	CLAYEY SAND (SC) dark brown, moist [Fill]	1			17.1	
1 – 3	CLAYEY SAND (SC) brown, medium dense, moist, some plastic trash bags [Fill]					
3 – 7	CLAYEY GRAVEL AND SAND (SC) Siltstone, fragments up to 8" max.[Fill]	5			12.9	
4½	Pieces of trash bags					
7 – 8½	SILTY CLAY (CL) dark brown, very stiff, moist, medium plasticity [Native]	8	21		12.7	
8½ - 14	LEAN CLAY WITH SAND (CL) yellowish brown, very stiff, moist, medium plasticity	9			22.2	4.0* 3.5* 4.5+*
14	Bottom of test pit at 14 feet. No groundwater encountered.					

TEST PIT LOG 1-TP6

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: CASE 590 Backhoe

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 – 1	LEAN CLAY (CL) dark brown, stiff, moist, medium plasticity	0			24.7	
1 – 2½	SANDSTONE greenish gray and brown, strong to very strong, slightly weathered, moderately fractured					
2	Angular boulders up to 24" near bedrock surface					
2½	Excavation refusal at 2½ feet. Backhoe teeth smoking on sandstone. No groundwater encountered.					

TEST PIT LOG 1-TP7

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: CASE 590 Backhoe

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 –7	LEAN CLAY (CL) dark brown, very stiff, moist, medium plasticity	3		122	20.5	2.25*
2	Grades to yellowish brown, hard					4.5+*
7 – 11	SILTSTONE AND CLAYSTONE greenish brown to brown, medium strong, moderately weathered, closely fractured, very thin bedding					
11	Bottom of test pit at 11 feet. No groundwater encountered.					

TEST PIT LOG 1-TP8

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: CASE 590 Backhoe

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 – 1½	ELASTIC SILT (MH) dark brown, very stiff, moist, high plasticity	1	49		21.8	2.25*
1½ - 6	Grades to with gravel size rock fragments, yellowish brown, hard, high plasticity, 40% highly weathered Siltstone/Claystone fragments					4.5+*
		3	39		16.0	4.5+*
6 – 10	SILTSTONE AND CLAYSTONE grayish brown, medium strong, moderately weathered, closely to moderately fractured, very thin bedding					
10	Bottom of test pit at 10 feet. No groundwater encountered.					

TEST PIT LOG 1-TPHA1

Cooke Property
Vallejo, California
13495.000.000

Logged By: Nick Broussard
Logged Date: 11/15/2016
Equipment: Hand Auger

Depth (Feet)	Description	Depth of Test (Feet)	Plasticity Index	Expansion Index	Laboratory Moisture Content%	Unconfined Compression (Tsf) *field approx
0 – 1	LEAN CLAY (CL) dark brown, stiff, moist, medium plasticity	0			24.2	
1 – 2 ½	ELASTIC SILT (MH) olive brown, hard, high plasticity, fine to medium grained sand	1	61		13.5	
2½	Bottom of test pit at 2½ feet. No groundwater encountered.					

APPENDIX B

LABORATORY ANALYSIS

EXPANSION INDEX TEST REPORT
ASTM D4829

PROJECT NAME:	Cooke Property	**REPORT DATE:**	11/18/2016
PROJECT NO.:	13495.000.000 PH001	**SAMPLE DATE:**	11/15/2016
CLIENT:	Lewis Acquistion Company, LLC	**TESTED BY:**	R.Montalvo
SAMPLE ID:	1-TP2@0-1	**REVIEWED BY:**	M. Gilbert
SAMPLE DESCRIPTION:	Dark brown CLAY		
SAMPLE SOURCE:	Native		

Sample ID	Soil Description	Initial Dry Density (pcf)	Initial Moisture Content (%)	Final Moisture Content (%)	Expansion Index
1-TP2@0-1	Dark brown CLAY	99.1	13.4	28.2	80

*Soil was visually classified (per ASTM D2488) immediately after EI test was complete.

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

EXPANSION INDEX TEST REPORT
ASTM D4829

PROJECT NAME:	Cooke Property	**REPORT DATE:**	11/18/2016
PROJECT NO.:	13495.000.000 PH001	**SAMPLE DATE:**	11/15/2016
CLIENT:	Lewis Acquistion Company, LLC	**TESTED BY:**	R.Montalvo
SAMPLE ID:	1-TP4@1	**REVIEWED BY:**	M. Gilbert
SAMPLE DESCRIPTION:	Dark brown CLAY		
SAMPLE SOURCE:	Native		

Sample ID	Soil Description	Initial Dry Density (pcf)	Initial Moisture Content (%)	Final Moisture Content (%)	Expansion Index
1-TP4@1	Dark brown CLAY	99.7	13.3	28.1	67

*Soil was visually classified (per ASTM D2488) immediately after EI test was complete.

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

EXPANSION INDEX TEST REPORT
ASTM D4829

PROJECT NAME:	Cooke Property	**REPORT DATE:**	11/18/2016
PROJECT NO.:	13495.000.000 PH001	**SAMPLE DATE:**	11/15/2016
CLIENT:	Lewis Acquistion Company, LLC	**TESTED BY:**	R.Montalvo
SAMPLE ID:	1-TP7@3	**REVIEWED BY:**	M. Gilbert
SAMPLE DESCRIPTION:	Yellowish brown CLAY		
SAMPLE SOURCE:	Native		

Sample ID	Soil Description	Initial Dry Density (pcf)	Initial Moisture Content (%)	Final Moisture Content (%)	Expansion Index
1-TP7@3	Yellowish brown CLAY	92.1	14.8	36.0	122

*Soil was visually classified (per ASTM D2488) immediately after EI test was complete.

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

MOISTURE CONTENT DETERMINATION

ASTM D2216

BORING/SAMPLE ID	1-TP1@1	1-TP1@3	1-TP2@0	1-TP2@3	1-TP3@1	1-TP4@1	1-TP4@5	1-TP5@1
DEPTH (ft)	**1**	**3**	**0**	**3**	**1**	**1**	**4**	**1**
Method A or B	B	B	B	B	B	B	B	B
%MOISTURE	**22.4**	**14.8**	**21.1**	**22.8**	**18.8**	**18.3**	**20.3**	**17.1**

BORING/SAMPLE ID	1-TP5@5	1-TP5@8	1-TP5@9	1-TP6@0	1-TP7@1	1-TP7@3	1-TP8@1	1-TP8@3
DEPTH (ft)	**5**	**8**	**9**	**0**	**1**	**3**	**1**	**3**
Method A or B	B	B	B	B	B	B	B	B
%MOISTURE	**12.9**	**12.7**	**22.2**	**24.7**	**19.1**	**20.5**	**21.8**	**16.0**

BORING/SAMPLE ID	HA1@0	HA1@1						
DEPTH (ft)	**0**	**1**						
Method A or B	B	B						
%MOISTURE	**24.2**	**13.5**						

BORING/SAMPLE ID								
DEPTH (ft)								
Method A or B								
%MOISTURE								

BORING/SAMPLE ID								
DEPTH (ft)								
Method A or B								
%MOISTURE								

PROJECT NAME: **Cooke Property** **DATE:** **11/21/16**

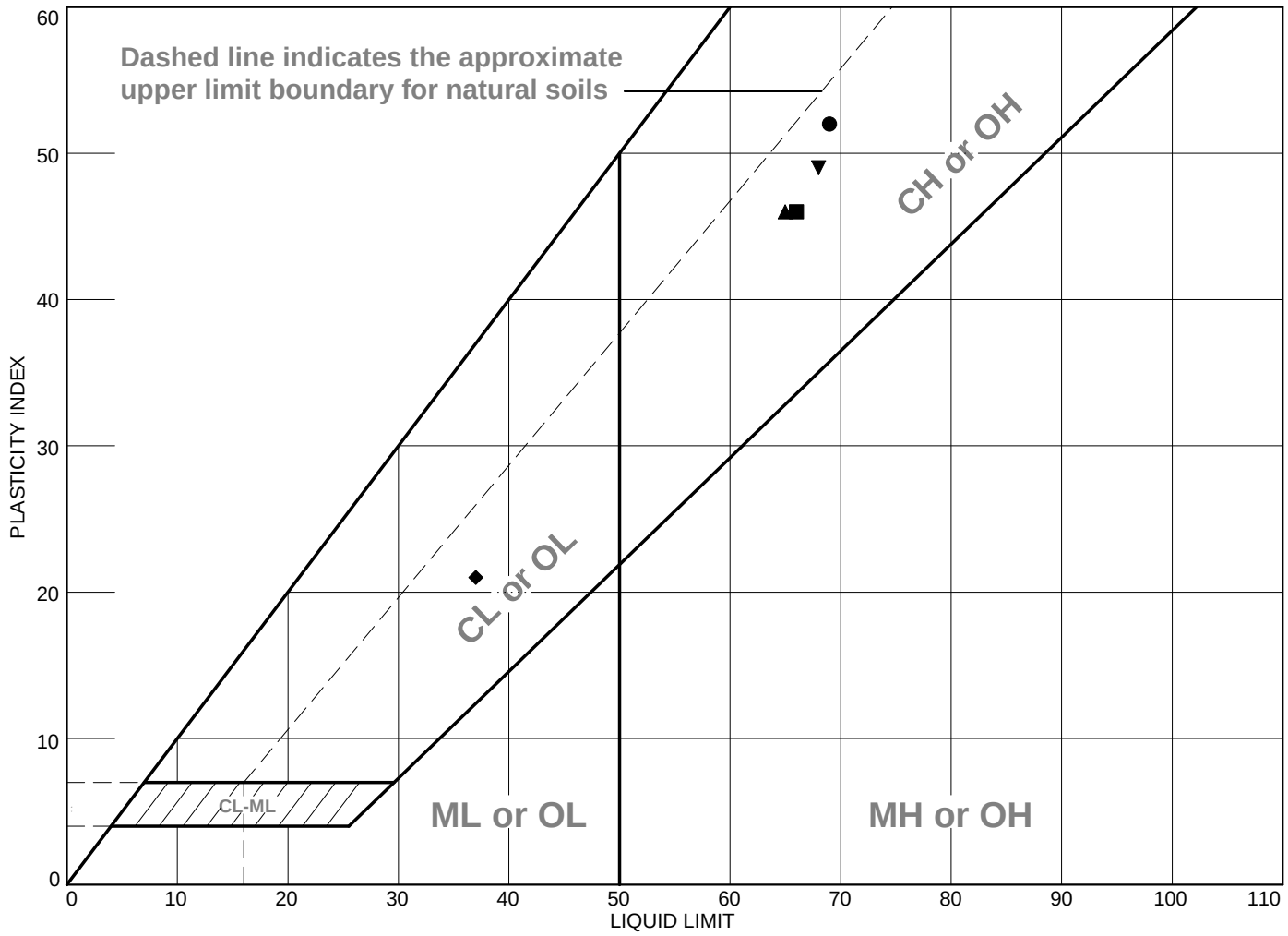
PROJECT NUMBER: **13495.000.000**

CLIENT: **Lewis Aquistion Company, LLC**

PHASE NUMBER: **001**

Tested by: R. Montalvo Reviewed by: M. Gilbert

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	See exploration logs	69	17	52			
■	See exploration logs	66	20	46			
▲	See exploration logs	65	19	46			
◆	See exploration logs	37	16	21			
▼	See exploration logs	68	19	49			

Project No. 13495.000.000 **Client:** Lewis Acquistion Company, LLC

Project: Cooke Property

●	**Source of Sample:** GEX	**Depth:** 1 feet	**Sample Number:** 1-TP1@1
■	**Source of Sample:** GEX	**Depth:** 3 feet	**Sample Number:** 1-TP1@3
▲	**Source of Sample:** GEX	**Depth:** 1 feet	**Sample Number:** 1-TP3@1
◆	**Source of Sample:** GEX	**Depth:** 8 feet	**Sample Number:** 1-TP5@8
▼	**Source of Sample:** GEX	**Depth:** 1 feet	**Sample Number:** 1-TP8@1

ENGEO INCORPORATED

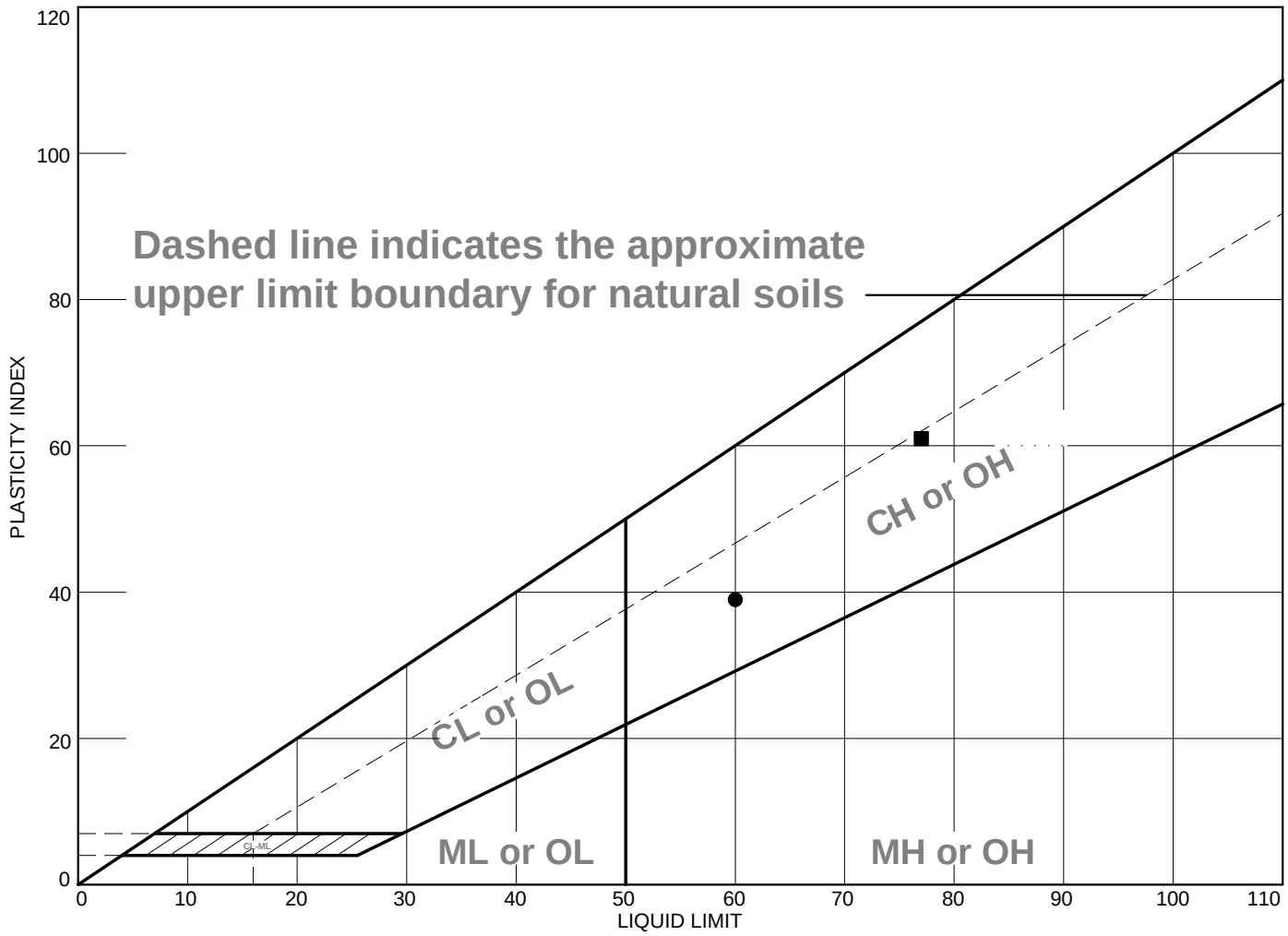
Remarks:

- ● Tested per ASTM D4318 Wet Method
- ■ Tested per ASTM D4318 Wet Method
- ▲ Tested per ASTM D4318 Wet Method
- ◆ Tested per ASTM D4318 Wet Method
- ▼ Tested per ASTM D4318 Wet Method

Figure

Tested By: R. Montalvo **Checked By:** M. Gilbert

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	See exploration logs	60	21	39			
■	See exploration logs	77	16	61			

Project No. 13495.000.000 **Client:** Lewis Acquistion Company, LLC

Project: Cooke Property

●**Source of Sample:** GEX **Depth:** 3 feet **Sample Number:** 1-TP8@3

■**Source of Sample:** GEX **Depth:** 1 feet **Sample Number:** 1-HA1@1

Remarks:

●Tested per ASTM D4318 Wet Method

■Tested per ASTM D4318 Wet Method

ENGEO INCORPORATED

Figure

Tested By: R. Montalvo **Checked By:** M. Gilbert

Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 11/23/2016
Date Submitted 11/18/2016

To: Nick Broussard
Engeo, Inc.
2213 Plaza Dr.
Rocklin, CA 95765

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following location:
Location : 13495.000.000 PH001 Site ID : 1-TP1@1FT.
Thank you for your business.

* For future reference to this analysis please use SUN # 73233-152831.

EVALUATION FOR SOIL CORROSION

Soil pH	6.27	
Minimum Resistivity	0.96 ohm-cm (x1000)	
Chloride	18.1 ppm	00.00181 %
Sulfate	15.5 ppm	00.00155 %

METHODS
pH and Min.Resistivity CA DOT Test #643
Sulfate CA DOT Test #417, Chloride CA DOT Test #422

Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 11/23/2016
Date Submitted 11/18/2016

To: Nick Broussard
Engeo, Inc.
2213 Plaza Dr.
Rocklin, CA 95765

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following location:
Location : 13495.000.000 PH001 Site ID : 1-TP6@0-1FT.
Thank you for your business.

* For future reference to this analysis please use SUN # 73233-152832.

EVALUATION FOR SOIL CORROSION

Soil pH	5.86	
Minimum Resistivity	1.42 ohm-cm (x1000)	
Chloride	27.8 ppm	00.00278 %
Sulfate	18.9 ppm	00.00189 %

METHODS
pH and Min.Resistivity CA DOT Test #643
Sulfate CA DOT Test #417, Chloride CA DOT Test #422

SAN RAMON

SAN FRANCISCO

SAN JOSE

OAKLAND

LATHROP

ROCKLIN

SANTA CLARITA

IRVINE

CHRISTCHURCH

WELLINGTON

AUCKLAND

ENGEO

Expect Excellence

Appendix G

Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT

COOKE PROPERTY
VALLEJO, CALIFORNIA

Submitted to:
Mr. Jeb Elmore
Lewis Management Corp.
9216 Kiefer Blvd.
Sacramento, CA 95816

Prepared by:
ENGEO Incorporated

November 15, 2016

Project No:
13495.000.000

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Project No.
13495.000.000

November 15, 2016

Mr. Jeb Elmore
Lewis Management Corp.
9216 Kiefer Blvd.
Sacramento, CA 95816

Subject: Cooke Property
APN 814-900-10 & APN 523-202-50
Vallejo, California

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Elmore:

ENGEO is pleased to present our phase I environmental site assessment of the subject property (Property), located in Vallejo, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM 1527-13.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Sincerely,

ENGEO Incorporated

Travis Chatters, EIT

Shawn Munger, CHG

tc/sm/bvv

TABLE OF CONTENTS

Letter of Transmittal

Page

EXECUTIVE SUMMARY 1

1.0 INTRODUCTION 2

1.1 SITE LOCATION 2
1.2 SITE AND VICINITY CHARACTERISTICS 2
1.3 CURRENT USE OF PROPERTY/DESCRIPTION OF SITE IMPROVEMENTS 3
1.4 CURRENT USE OF ADJOINING PROPERTIES 3
1.5 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT 3
1.6 DETAILED SCOPE OF SERVICES 3
1.7 SIGNIFICANT ASSUMPTIONS OR DEVIATIONS FROM ASTM STANDARD PRACTICE 4
1.8 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT 4
1.9 SPECIAL TERMS AND CONDITIONS 5

2.0 USER-PROVIDED INFORMATION 5

2.1 PROPERTY RECORDS 5
2.1.1 Title Report/Ownership 5
2.1.2 Environmental Liens and Activity Use Limitations 5
2.2 USER KNOWLEDGE OF PROPERTY 6

3.0 RECORDS REVIEW 6

3.1 HISTORICAL RECORD SOURCES 6
3.1.1 Historical Topographic Maps 6
3.1.2 Aerial Photographs 7
3.1.3 Fire Insurance Maps 8
3.1.4 City Directory 8
3.2 ENVIRONMENTAL RECORD SOURCES 8
3.2.1 Standard Environmental Records 9
3.2.1.1 Subject Property 9
3.2.1.2 Other Properties 9
3.2.2 Additional Environmental Records 9
3.2.2.1 Subject Property 9
3.2.2.2 Other Properties 9
3.3 REGULATORY AGENCY FILES AND RECORDS 10

4.0 SITE RECONNAISSANCE 11

4.1 METHODOLOGY 11
4.2 GENERAL SITE SETTING 11
4.3 EXTERIOR OBSERVATIONS 11

TABLE OF CONTENTS (Continued)

4.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT.....13
4.5 INDOOR AIR QUALITY.....13
5.0 INTERVIEWS.....13
6.0 EVALUATION.....13
6.1 FINDINGS.....13
6.2 OPINIONS AND DATA GAPS.....14
6.3 CONCLUSIONS.....14
REFERENCES
FIGURES
APPENDIX A – Environmental Data Resources, Inc., Radius Map Report
APPENDIX B – Environmental Data Resources, Inc., Sanborn Map Report
APPENDIX C – Environmental Data Resources, Inc., Historical Topographic Map Report
APPENDIX D – First American Title Company, Preliminary Title Report
APPENDIX E – Environmental Data Resources, Inc., Aerial Photo Decade Package
APPENDIX F – Environmental Data Resources, Inc., City Directory
APPENDIX G – Environmental Site Assessment Questionnaire
APPENDIX H – Qualifications of Environmental Professional

EXECUTIVE SUMMARY

ENGEO conducted a phase I environmental site assessment for the property (Property), located southeast of the intersection of Turner Parkway and Admiral Callaghan Lane and southeast of Coach Lane in Vallejo, California (Figures 1 and 2). The Property is split into two parcels, one to the west of Interstate 80, and the other to the east. The eastern parcel measures approximately 51.3 acres in area and is located south of Turner Parkway and east of Admiral Callaghan Lane. The western parcel measures approximately 1.5 acres in area, and is located at the end of Coach Lane. The Properties are identified by Assessor's Parcel Number (APN) 814-900-10 and 523-202-50 for the eastern and western sites, respectively.

Both the eastern and western parcels consist of undeveloped land, with no standing structures.

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not identify documentation or physical evidence of soil or groundwater impairments associated with the use or past use of the Property. A review of regulatory databases maintained by county, state, tribal, and federal agencies found no documentation of hazardous materials violations or discharge on the Property.

Based on the findings of this assessment, no Recognized Environmental Condition (REC), no Historic Recognized Environmental Conditions (HRECs), and no controlled RECs were identified for the Property.

ENGEO has performed a phase I environmental site assessment of the Property in general conformance with the scope and limitations of ASTM E1527. No further environmental studies are recommended at this time.

1.0 INTRODUCTION

ENGEO conducted a phase I environmental site assessment for the property (Property), located at southeast of the intersection of Turner Parkway and Admiral Callaghan Lane and southeast of Coach Lane in Vallejo, California (Figures 1 and 2). The Property is split into two parcels, one to the west of Interstate 80, and the other to the east. The eastern parcel measures approximately 51.3 acres in area, is located south of Turner Parkway and east of Admiral Callaghan Lane. The western parcel measures approximately 1.5 acres in area, and is located at the end of Coach Lane. The Properties are identified by Assessor's Parcel Number (APN) 814-900-10 and 523-202-50 for the eastern and western sites, respectively.

1.1 SITE LOCATION

The Property is located at southeast of the intersection of Turner Parkway and Admiral Callaghan Lane and southeast of Coach Lane in Vallejo, California (Figures 1 and 2). The Property is split into two parcels, one to the west of Interstate 80, and the other to the east. The eastern parcel measures approximately 51.3 acres in area and is located south of Turner Parkway and east of Admiral Callaghan Lane. The western parcel measures approximately 1.5 acres in area and is located at the end of Coach Lane.

1.2 SITE AND VICINITY CHARACTERISTICS

Review of published topographic maps found that the eastern parcel ranges in elevation from approximately 86 to 130 feet above mean sea level, while the western parcel is situated at an approximate elevation of 97 feet above mean sea level. A review of the Geologic Map of the Cordelia & Fairfield South Quadrangles (Dibblee, 2006) found that the Property is primarily underlain by Cretaceous-age Panoche Formation, (Kp), and Holocene-age alluvial deposits.

Geocheck – The Physical Setting Source Summary of the Environmental Resources Data report (Appendix A) indicated no Federal United States Geological Survey (USGS) or State wells are located on or within 1 mile of the Property.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water in the vicinity of the Property. The website identified a well approximately 4.5 miles to the west of the Property. Well measurements indicate groundwater varies from depths of 45 to 55 feet below the surface.

We reviewed EnviroStor, a website maintained by the State of California, Department of Toxic Substances Control, and GeoTracker, a website maintained by the State of California, Water Resources Control Board, for nearby facilities with records that include depth to groundwater measurements. The following information was obtained regarding local groundwater conditions.

TABLE 1.2-1
Local Groundwater Conditions

Proximity to Property	Reported Depth to Groundwater	Reported Groundwater Flow Direction
¼ mile NW	6.5 to 14 feet	WSW
½ mile SW	6 to 20 feet	NW
1 mile WSW	2 to 4.5 feet	WSW

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation, and other factors.

We reviewed the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website and map database to determine if any historic oil and/or gas wells were located within the Property. No wells were mapped within 1 mile of the Property.

1.3 CURRENT USE OF PROPERTY/DESCRIPTION OF SITE IMPROVEMENTS

The Property consists of undeveloped land.

1.4 CURRENT USE OF ADJOINING PROPERTIES

Adjoining properties consist of residential and commercial developments.

1.5 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of Lewis Management Corp. for the purpose of environmental due diligence during Property acquisition. The objective of this phase I environmental site assessment is to identify Recognized Environmental Conditions (RECs) associated with the Property. As defined in the ASTM Standard Practice E 1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to 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."

1.6 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of publicly available and practically reviewable standard local, state, tribal, and federal environmental record sources.

- A review of publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.

- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.

- Interviews with owners/occupants and public sector officials.

- Preparation of this report with our findings, opinions, and conclusions.

1.7 SIGNIFICANT ASSUMPTIONS OR DEVIATIONS FROM ASTM STANDARD PRACTICE

There were no significant deviations from the ASTM Standard Practice.

1.8 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on contracted database research, out-of-house reports and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I environmental site assessment are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I environmental site assessment is not intended to represent a complete soil or groundwater characterization, nor define the depth or extent of soil or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

1.9 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our client, Lewis Management Corp. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection of light ballasts for polychlorinated biphenyls (PCBs), a radon evaluation, or a mold survey.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage, that occurred subsequent to the reconnaissance conducted by ENGEO personnel.

2.0 USER-PROVIDED INFORMATION

2.1 PROPERTY RECORDS

2.1.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for the Property, prepared by First American Title Company and dated September 7, 2016, was provided for our review. The Property title is vested in Frank Toller, Sole Trustee of the Melvin D. Cooke Trust. No references to environmental liens, deed restrictions or other potential environmental issues were noted. This report is included in Appendix D.

2.1.2 Environmental Liens and Activity Use Limitations

The Preliminary Title Report for the Property prepared by First American Title Company and dated September 7, 2016, includes no references to environmental liens. Additionally, the questionnaire completed by the Client for APNs 814-900-10 and 523-202-50, indicated that they are not aware of any environmental cleanup liens recorded against the Property.

2.2 USER KNOWLEDGE OF PROPERTY

Mr. Jeb Elmore completed the client environmental site assessment questionnaire pertaining to user-related applicable environmental information regarding the Property. In the questionnaire, Mr. Elmore identified no potential environmentally related issues with the Property.

Mr. Elmore is unaware of commonly known, reasonably ascertainable, or specialized knowledge indicative of releases or threatened releases that is material to the potential presence of Recognized Environmental Conditions.

No Key Site Manager questionnaire provided for this report.

The questionnaire is presented in its entirety in Appendix G.

3.0 RECORDS REVIEW

3.1 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

3.1.1 Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the Property had been recorded. The following maps were provided through an EDR Historical Topographic Map Report, presented in Appendix C.

TABLE 3.1.1-1
Historical Topographic Maps

Quad	Years	Series	Scale
Carquinez Strait	1896	15	1:62500
Karquines	1898	15	1:62500
Carquinez	1901	15	1:62500
Karquines	1901	15	1:62500
Napa	1902	30	1:125000
Carquinez Strait	1940	15	1:62500
Carquinez	1942	15	1:62500
Benicia	1950, 1951	7.5	1:24000
Cordelia	1950, 1951	7.5	1:24000
Cordelia	1968	7.5	1:24000
Benicia	1968	7.5	1:24000

Quad	Years	Series	Scale
Cordelia	1980	7.5	1:24000
Benicia	1980	7.5	1:24000
Cordelia	2012	7.5	1:24000
Benicia	2012	7.5	1:24000
Mare Island	2012	7.5	1:24000
Cuttings Warf	2012	7.5	1:24000

1896, 1898, 1901, 1902 Maps – The Property appears as open space. Several roadways are mapped. Residential areas are depicted southwest of the property. Lake Chabot is shown to the west of the Property.

1940, 1942 Maps – The Property appears as open space. Interstate 80 can be seen in its current alignment. Blue Rock Springs Creek is shown to the south of the Property.

1950, 1951, 1968, 1980 Maps – The Property appears as open space. The Solano County Fairgrounds are shown north of the Property. Additional streets are depicted to the northwest and southwest of the Property. Additionally, Harry Floyd Terrace and Chabot Terrace are labeled.

2012 Map – The Property appears as open space. Surrounding areas include additional major and minor roadways surrounding the Property.

3.1.2 Aerial Photographs

The following aerial photographs, provided by EDR, were reviewed for information regarding past conditions and land use at the Property and in the immediate vicinity. These photographs are presented in Appendix E.

TABLE 3.1.2-1
Aerial Photographs

Flyer	Year	Scale
USDA	1937	1”=500’
USGS	1947	1”=500’
USDA	1952	1”=500’
USGS	1958	1”=500’
USGS	1968	1”=500’
USGS	1974	1”=500’
USDA	1982	1”=500’
USGS/DOQQ	1993	1”=500’
USDA/NAIP	2005	1”=500’

Flyer	Year	Scale
USDA/NAIP	2009	1"=500'
USDA/NAIP	2010	1"=500'
USDA/NAIP	2012	1"=500'

1937 through 1947 Photographs – The Property and adjacent parcels are undeveloped agricultural and grazing land. Interstate 80 is noted in its current alignment.

1952 through 1958 Photographs – The Property remains undeveloped land. The Solano County Fairgrounds are noted northwest of the Property.

1968 through 1974 Photographs – The Property remains undeveloped land. Several residential units have been developed to the west of the Property.

1982 Photograph – The Property remains undeveloped land. Nearby parcels to the south and the east are developed as residential and commercial units.

1993 through 2012 Photographs – The Property remains undeveloped land. Surrounding parcels are developed as residential and commercial units.

3.1.3 Fire Insurance Maps

EDR prepared a Sanborn Fire insurance map search for the Property and surrounding properties. EDR reported that no maps were available for the Property and surrounding properties. The Sanborn Map Report is presented in Appendix B.

3.1.4 City Directory

City Directories, published since the 18th century for major towns and cities, list the name of the resident or business associated with each address. No listings were reported for the Property. Multiple listings were identified for private use and retail businesses in the vicinity of the Property. The city directory search conducted by EDR is located in Appendix F.

3.2 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below.

3.2.1 Standard Environmental Records

3.2.1.1 Subject Property

The Property is not listed on the Standard Environmental Record sources.

3.2.1.2 Other Properties

The following databases include facilities listed within the appropriate ASTM search distances of the Property on the Standard Environmental Record sources.

TABLE 3.2.1.2-1

Facility	Street	Databases
Avery Green Motors	80 Admiral Callaghan Lane	LUST, RCRA-SQG, UST
Oil Changer Inc. #624	794 Admiral Callaghan Lane	AST
Valero Gas & Food	501 Fairgrounds Drive	UST
Safeway Store #989	774 Admiral Callaghan Lane	RCRA-LQG
Vallejo Corners Dry Cleaners	950 Admiral Callaghan Lane	SLIC
Redwood Cleaners	784 Admiral Callaghan Lane	RCRA-SQG
Target Store #331	904 Admiral Callaghan Lane	RCRA-SQG
Shell Service Station #126	708 Admiral Callaghan Lane	UST, RCRA-SQG
Tell Rental Inc.	711 Admiral Callaghan Lane	LUST, UST
Vallejo Toyota	1001 Admiral Callaghan Lane	LUST
Taylor Classic Motors	1001 Admiral Callaghan Lane	LUST
Tosco – Facility #6209	223 Fairgrounds Drive	LUST
Chevron Station	200 Fairgrounds Drive	LUST
Solano County Fairgrounds	900 Fairgrounds Drive	LUST

3.2.2 Additional Environmental Records

3.2.2.1 Subject Property

The Property is not listed on the Additional Environmental Record sources.

3.2.2.2 Other Properties

The following databases include facilities listed within the appropriate ASTM search distances of the Property on the Additional Environmental Record sources.

TABLE 3.2.2.2-1

Facility	Street	Databases
K&M Auto Body	3 Cabana Street	EDR Gas Station
Avery Green Motors	80 Admiral Callaghan Lane	EDR Gas Station, HAZNET, CA FID UST, HIST UST, HIST CORTESE, EMI, SWEEPS UST
PJs Mobile Auto Maintenance & Repair	510 Fairgrounds Drive	EDR Gas Station
DJ's Liquor and Food	501 Fairgrounds Drive	CA FID UST, SWEEPS UST
Ahmed	501 Fairgrounds Drive	HIST UST, HAZNET
Safeway Store #989	774 Admiral Callaghan Lane	FINDS, ECHO, RCRA-NLR
T&Js Cleaners	950 Admiral Callaghan Lane	FINDS, EMI, DRYCLEANERS
Redwood Cleaners (DBA)	760 Admiral Callaghan Lane	DRYCLEANERS
Redwood Cleaners	784 Admiral Callaghan Lane	EMI
Shell Service Station #126	708 Admiral Callaghan Lane	CA FID UST, SWEEPS UST, FINDS, ECHO, HAZNET
Tell Rental Inc.	711 Admiral Callaghan Lane	CA FID UST, SWEEPS UST
Vallejo Toyota	1001 Admiral Callaghan Lane	HIST CORTESE
Taylor Classic Motors	1001 Admiral Callaghan Lane	CA FID UST, SWEEPS UST
Tosco – Facility #6209	223 Fairgrounds Drive	HIST CORTESE
Chevron Station	200 Fairgrounds Drive	HIST CORTESE
Solano County Fairgrounds	900 Fairgrounds Drive	SWPPS UST, HIST CORTESE

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that the above-stated database sites pose an environmental risk to the Property.

No properties were listed on the "Orphan Summary" list.

3.3 REGULATORY AGENCY FILES AND RECORDS

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

- City of Vallejo
- City of Vallejo Fire Department
- Solano County Assessors Department
- Solano County Department of Environmental Health
- California State Water Resources Control Board
- California Department of Toxic Substances Control

City of Vallejo – The City of Vallejo was contacted regarding files for the Property. No files were found relating to the Property.

City of Vallejo Fire Department – The City of Vallejo Fire Department was contacted regarding any files or permits for the Property. No documents were found relating to the Property.

Solano County Assessor's Department – We reviewed the County's online permits database. There are currently no open permits relating to the Property.

Solano County Department of Environmental Health – We reviewed the Solano County Department of Environmental Management's online public record document search. No documents were found relating to the Property.

California State Water Resources Control Board – We reviewed the GeoTracker Database maintained by the State Water Resources Control Board to identify ongoing environmental site assessment and remedial activities in the immediate vicinity of the Property. There were no records for the Property listed in the GeoTracker Database.

Department of Toxic Substances Control – We reviewed the EnviroStor Database maintained by the Department of Toxic Substances Control (DTSC) to identify ongoing environmental site assessment and remedial activities in the immediate vicinity of the Property. There were no records for the Property listed in the EnviroStor Database.

4.0 SITE RECONNAISSANCE

4.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on November 9, 2016. The reconnaissance was performed by Travis Chatters, a Staff Engineer of ENGEO. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The Property was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 5.

4.2 GENERAL SITE SETTING

The Property is undeveloped land. Residential and commercial units surround the Property. Primary access to the Property is from Turner Parkway and Coach Lane.

4.3 EXTERIOR OBSERVATIONS

Structures. No structures were present at the time of the reconnaissance.

Hazardous Substances and Petroleum Products in Connection with Identified Uses. No hazardous substances or petroleum products were observed within the Property during the reconnaissance.

Storage Tanks. No above-ground storage tanks or evidence of existing underground storage tanks was observed during the site reconnaissance.

Odors. No odors indicative of hazardous materials or petroleum material impacts were noted at the time of the reconnaissance.

Pools of Potentially Hazardous Liquid. No pools of potentially hazardous liquid were observed within the Property at the time of the reconnaissance.

Drums. No drums were observed on the Property at the time of the reconnaissance.

Hazardous Substance and Petroleum Product Containers. No hazardous substance or petroleum product containers were observed on the Property at the time of the reconnaissance.

Polychlorinated Biphenyls (PCBs). No hazardous substance or PCBs were observed on the Property at the time of the reconnaissance.

Pits, Ponds and Lagoons. There are no ponds located on the Property.

Stained Soil/Pavement. No stained soil or pavement was observed.

Stressed Vegetation. No signs of stressed vegetation were observed on the Property at the time of the reconnaissance.

Solid Waste/Debris. Some litter was seen near the storm drain outlet along the northern border of the eastern parcel.

Stockpiles/Fill Material. No areas of stockpiled soil or apparent undocumented fill were observed.

Wastewater. A large storm drain outlet was observed at the northern border of the eastern parcel.

Wells. No evidence of wells was observed on the Property.

Septic Systems. No evidence of septic systems was found within the Property during the reconnaissance.

4.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

An asbestos and lead-based paint survey was not conducted as part of this assessment. There are no structures located on the Property.

4.5 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that three tests were conducted within the Property zip code, with none of the tests exceeding the current EPA action level of 4 picocuries per liter [pCi/L][1]).

In accordance with ASTM E2600-10 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); there are no potential petroleum hydrocarbon sources for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) sources within 1/3 mile of the Property.

5.0 INTERVIEWS

Mr. Jeb Elmore completed the client environmental site assessment questionnaire pertaining to user-related applicable environmental information regarding the Property. In the questionnaires, Mr. Elmore identified no potential environmentally related issues with the Property.

Mr. Elmore is unaware of commonly known, reasonably ascertainable, or specialized knowledge indicative of releases or threatened releases that is material to the potential presence of Recognized Environmental Conditions.

No Key Site Manager questionnaire was provided for this report.

The questionnaire is presented in its entirety in Appendix G.

6.0 EVALUATION

6.1 FINDINGS

The reconnaissance did not find documentation or physical evidence of soil or groundwater impairments associated with the current or past use of the Property. A review of regulatory databases maintained by county, state and federal agencies found no documentation of hazardous materials violations or discharge on the Property. No documented soil or groundwater contamination associated with abutting properties was found from the records research.

[1] California Department of Health Services – Division of Drinking Water and Environmental Management – Radon (http://www.cdph.ca.gov/HealthInfo/environhealth/Documents/Radon/CaliforniaRadonDatabase.pdf).

6.2 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. The following data gap was identified:

- We did not receive a completed key site manager questionnaire at the time of this report.

The data gap identified during this process are not expected to affect the conclusions as to the presence or lack of presence of RECs at the Property.

6.3 CONCLUSIONS

This study included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The reconnaissance did not find documentation or physical evidence of soil or groundwater impairments associated with the current or past use of the Property. A review of regulatory databases maintained by county, state and federal agencies found no documentation of hazardous materials violations or discharge on the Property.

Based on the findings of this assessment, no Recognized Environmental Condition (REC), no Historic Recognized Environmental Conditions (HRECs), and no controlled RECs were identified for the Property.

ENGEO has performed a phase I environmental site assessment of the Property in general conformance with the scope and limitations of ASTM E1527. No further environmental studies are recommended at this time.

SELECTED REFERENCES

California Department of Water Resources (http://wdl.water.ca.gov)

California Department of Conservation, Department of Oil, Gas and Geothermal Resources Website; Oil and Gas Maps, (http://www.consrv.ca.gov/dog/maps/pages/index_map.aspx)

California Department of Health Services – Division of Drinking Water and Environmental Management – Radon (http://ww2.cdph.ca.gov/HealthInfo/environhealth/Documents/Radon/CaliforniaRadonDatabase.pdf)

EnviroStor Website, Department of Toxic Substances Control, http://www.envirostor.dtsc.ca.gov/public//

GeoTracker Website, State Water Resources Control Board, http://geotracker.swrcb.ca.gov/.

Solano County (http://www.solanocounty.com/)

Solano County Environmental Health (http://solanocounty.com/depts/rm/environmental_health/default.asp)

Solano County Assessor (https://www.solanocounty.com/depts/ar/home.asp)

Google Maps (http://maps.google.com)

California Department of Water Resources (http://www.water.ca.gov/waterdatalibrary/)

FIGURES

LIST OF FIGURES

Figure 1 - Vicinity Map
Figure 2 - Site Plan
Figure 3 - Assessor's Parcel Map
Figure 4 - Topographic Map
Figure 5 - Site Photographs

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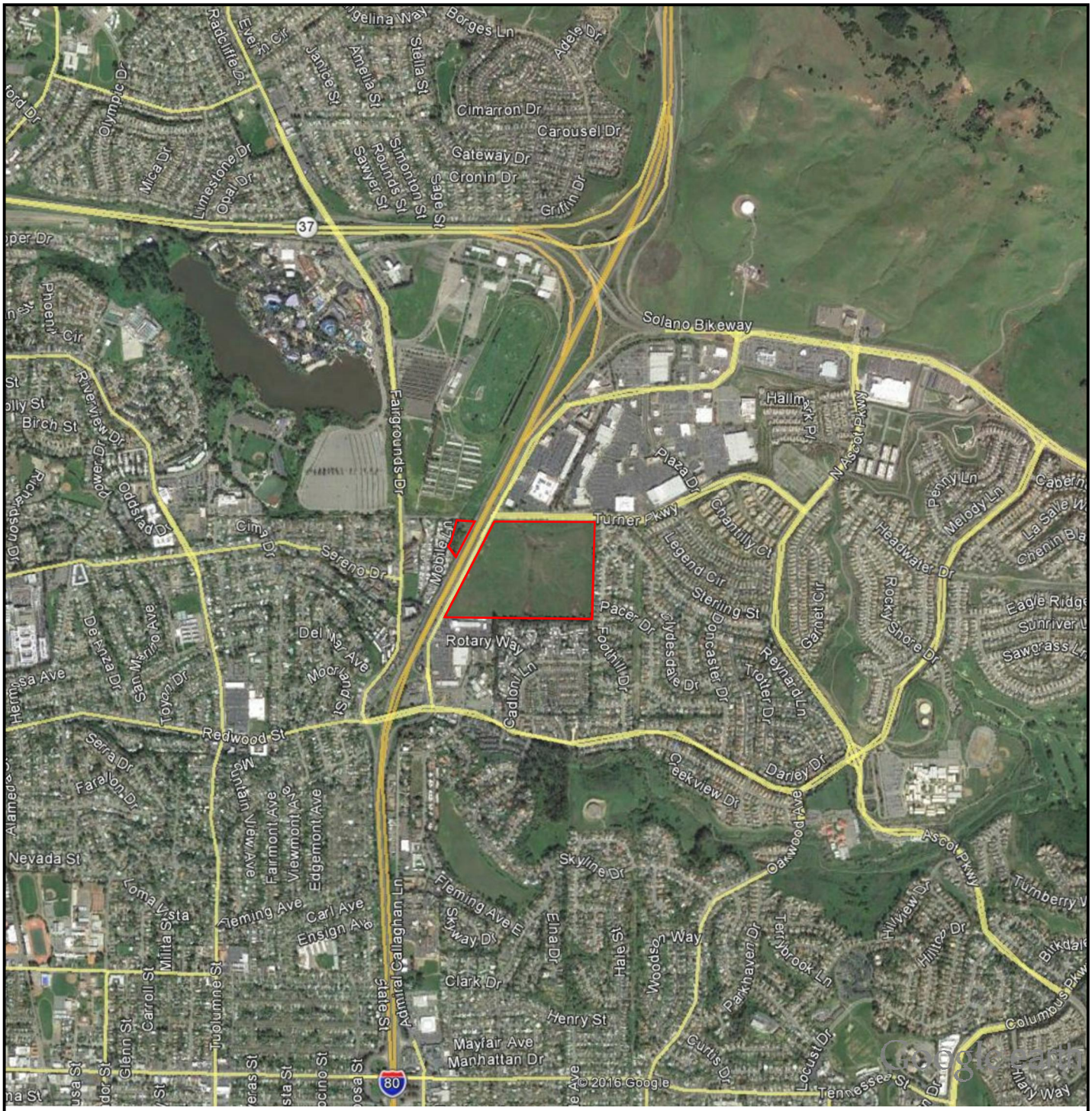

0 FEET 2000

0 METERS 1000

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

SITE BOUNDARY

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

ENGEO Expect Excellence

VICINITY MAP

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000			FIGURE NO. 1
SCALE: AS SHOWN			
DRAWN BY: SRP	CHECKED BY: SPM		

G:\Drafting\DRAFTING2_Dwg_13000 Plus\13495\000\ESA\13495000000-1-ESA-VicinityMap-1116.dwg Plot Date: 11-10-16 spatters

ORIGINAL FIGURE PRINTED IN COLOR

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N

0 FEET 400

0 METERS 200

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

SITE BOUNDARY

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

ENGEO Expect Excellence

SITE PLAN

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000	FIGURE NO. 2
SCALE: AS SHOWN	
DRAWN BY: SRP	CHECKED BY: SPM

ORIGINAL FIGURE PRINTED IN COLOR

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EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

SITE BOUNDARY

N

0 FEET 400

0 METERS 200

BASE MAP SOURCE: SOLANO COUNTY

ENGEO
Expect Excellence

ASSESSOR'S PARCEL MAP

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000	FIGURE NO. 3
SCALE: AS SHOWN	
DRAWN BY: SRP	CHECKED BY: SPM

ORIGINAL FIGURE PRINTED IN COLOR

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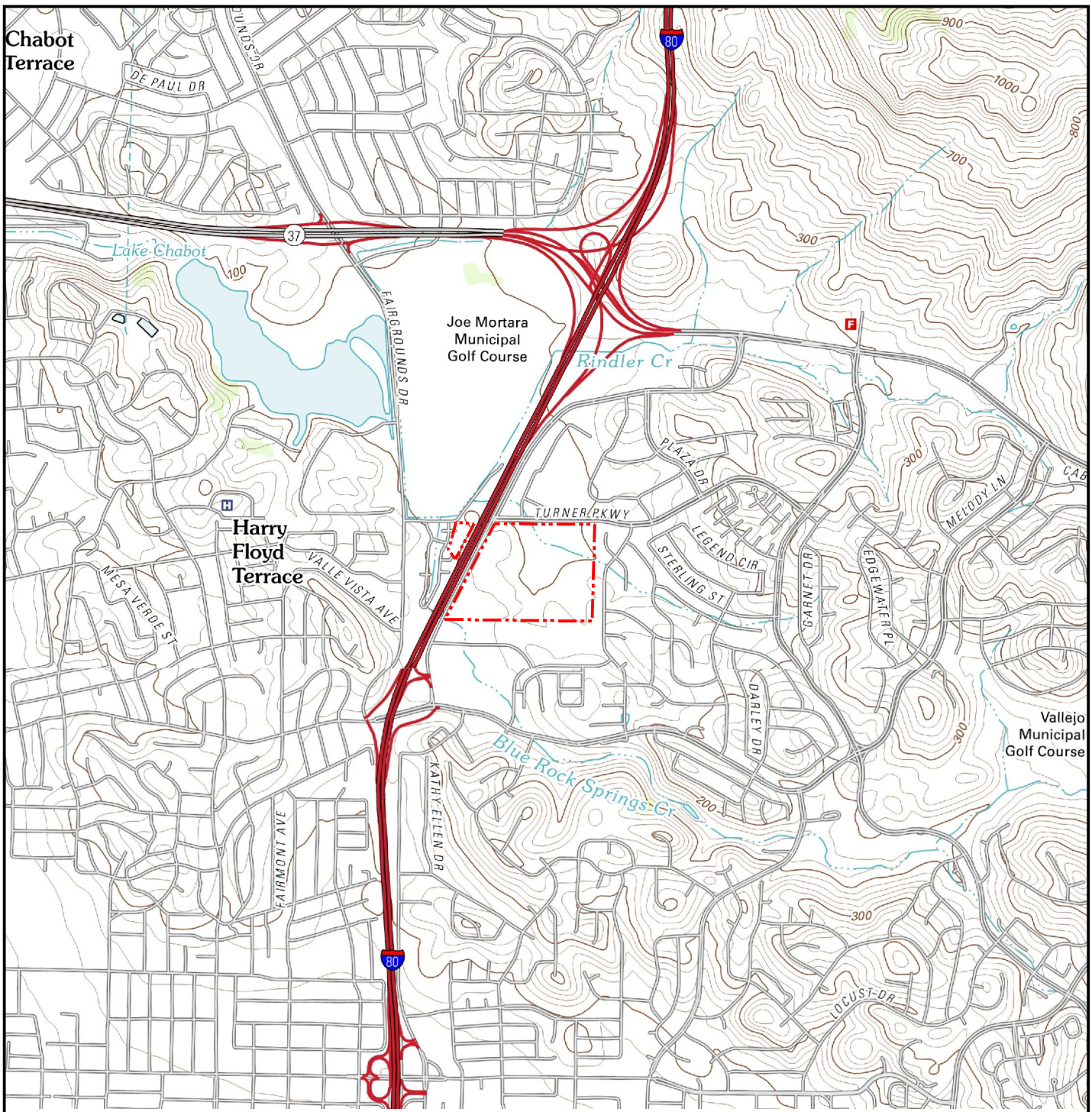

N

0 FEET 2000

0 METERS 1000

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

SITE BOUNDARY

BASE MAP SOURCE: USGS, 2012

ENGEO Expect Excellence

TOPOGRAPHIC MAP

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.:	13495.000.000		FIGURE NO. 4
SCALE:	AS SHOWN		
DRAWN BY:	SRP	CHECKED BY: SPM	

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MIDDLE OF PROPERTY LOOKING SOUTHWEST

NEAR TURNER PARKWAY LOOKING SOUTHEAST

NORTHWEST CORNER OF PROPERTY LOOKING EAST

TOP OF HILL LOOKING EAST

TOP OF HILL LOOKING SOUTHWEST

TURNER PARKWAY LOOKING SOUTH

ENGEO Expect Excellence

SITE PHOTOGRAPHS

COOKE PROPERTY

VALLEJO, CALIFORNIA

PROJECT NO.: 13495.000.000			FIGURE NO. 5
SCALE: NO SCALE			
DRAWN BY: SRP	CHECKED BY: SPM		

G:\Drafting\DRAFTING2_Dwg_13000 Plus\13495\000\ESA\13495000000-ESA-5-SitePhotographs-1116.dwg Plot Date:11-10-16 spatters

ORIGINAL FIGURE PRINTED IN COLOR

APPENDIX A

ENVIRONMENTAL DATA RESOURCES, INC.

Radius Map Report

APPENDIX A

Cooke Property
Turner Parkway
Vallejo, CA 94591

Inquiry Number: 04772246.2r
November 03, 2016

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	72
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-9
Physical Setting Source Map Findings	A-11
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

TURNER PARKWAY
VALLEJO, CA 94591

COORDINATES

Latitude (North):	38.1288560 - 38° 7' 43.88''
Longitude (West):	122.2235930 - 122° 13' 24.93''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	568049.2
UTM Y (Meters):	4220190.5
Elevation:	99 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5602186 CORDELIA, CA
Version Date:	2012
Southeast Map:	5602094 BENICIA, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
TURNER PARKWAY
VALLEJO, CA 94591

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1		3 CABANA ST	EDR Hist Auto	Lower	138, 0.026, WNW
A2		800 ADMIRAL CALLAGH	EDR Hist Auto	Higher	437, 0.083, SW
A3	AVERY GREENE MOTORS	800 ADMIRAL CALLAGHA	LUST, HAZNET	Higher	437, 0.083, SW
B4	AVERY GREEN MOTORS	800 ADMIRAL CALLAHAM	RCRA-SQG, LUST, HIST UST, CA FID UST, HIST CORTESE	Higher	490, 0.093, SW
B5	AVERY GREENE MOTORS	800 ADMIRAL CALLAGHA	LUST, UST, SWEEPS UST, EMI	Higher	490, 0.093, SW
C6		510 FAIRGROUNDS DR	EDR Hist Auto	Higher	568, 0.108, West
A7	OIL CHANGER #624	794 ADMIRAL CALLAGHA	AST	Higher	684, 0.130, SW
C8	DJ'S LIQUOR AND FOOD	501 FAIRGROUNDS DR	SWEEPS UST, CA FID UST	Higher	748, 0.142, West
C9	AHMED	501 FAIRGROUNDS DR	HIST UST, HAZNET	Higher	748, 0.142, West
C10	VALERO GAS & FOOD	501 FAIRGROUNDS DR	UST	Higher	748, 0.142, West
D11	SAFEWAY STORE NO 989	774 ADM CALLAGHAN LN	RCRA-LQG, FINDS, ECHO	Higher	802, 0.152, SSW
E12	T & J CLEANERS	950 ADMIRAL CALLAGHN	FINDS, DRYCLEANERS, EMI	Lower	808, 0.153, NNE
E13	VALLEJO CORNERS DRY	950 ADMIRAL CALLAGHA	SLIC	Lower	808, 0.153, NNE
14	REDWOOD CLEANERS (DB	760 ADMIRAL CALLAGHA	DRYCLEANERS	Higher	838, 0.159, SW
D15	SAFEWAY STORE 989	774 ADMIRAL CALLAGHA	RCRA NonGen / NLR, FINDS, ECHO	Higher	861, 0.163, SW
D16	REDWOOD CLEANERS	784 ADMIRAL CALLAHAN	RCRA-SQG, EMI	Higher	861, 0.163, SW
17	TARGET STORE T0331	904 ADMIRAL CALLAGHA	RCRA-SQG	Lower	882, 0.167, North
F18	SHELL STATION	708 ADMIRAL CALLAGHA	SWEEPS UST, CA FID UST	Higher	1305, 0.247, SW
F19	SHELL ADMIRAL CALLAG	708 ADMIRAL CALLAGHA	UST	Higher	1305, 0.247, SW
F20	SHELL SERVICE STATIO	708 ADMIRAL CALLAGHA	RCRA-SQG, FINDS, HAZNET, ECHO	Higher	1305, 0.247, SW
F21	TELL RENTAL INC.	711 ADMIRAL CALLAGHA	LUST, SWEEPS UST, CA FID UST	Higher	1314, 0.249, SW
F22	TELL RENTALS INC	711 ADMIRAL CALLAGHA	UST	Higher	1314, 0.249, SW
F23	TELL RENTALS	711 ADMRIAL CALLAGHA	LUST	Higher	1314, 0.249, SW
G24	VALLEJO TOYOTA	1001 ADMIRAL CALLAGH	LUST, HIST CORTESE	Higher	1737, 0.329, NNE
G25	TAYLOR CLASSIC MOTOR	1001 ADMIRAL CALLAGH	LUST, SWEEPS UST, CA FID UST	Higher	1737, 0.329, NNE
H26	TOSCO - FACILITY # 6	223 FAIRGROUNDS DR	LUST, HIST CORTESE	Higher	1869, 0.354, SW
H27	CHEVRON	200 FAIRGROUNDS DR	LUST, HIST CORTESE	Higher	1873, 0.355, SW
28	SOLANO COUNTY FAIRGR	900 FAIRGROUNDS	LUST, SWEEPS UST, HIST CORTESE	Lower	1978, 0.375, NNW

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 - equivalent CERCLIS

ENVIROSTOR EnviroStor Database

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

INDIAN VCP Voluntary Cleanup Priority Listing
VCP Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT Waste Management Unit Database
SWRCY Recycler Database
HAULERS Registered Waste Tire Haulers Listing
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
ODI Open Dump Inventory

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

EXECUTIVE SUMMARY

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
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
EMI	Emissions Inventory Data

ENF Enforcement Action Listing
Financial Assurance Financial Assurance Information Listing
HAZNET Facility and Manifest Data
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
WASTEWATER PITS Oil Wastewater Pits Listing
WDS Waste Discharge System
WIP Well Investigation Program Case List
FUELS PROGRAM EPA Fuels Program Registered Listing
ABANDONED MINES Abandoned Mines
ICE ICE
ECHO Enforcement & Compliance History Information

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner EDR Exclusive Historic Dry 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.

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 06/21/2016 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
SAFEWAY STORE NO 989	***774 ADM CALLAGHAN LN***	***SSW 1/8 - 1/4 (0.152 mi.)***	***D11***	***24***

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/21/2016 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
AVERY GREEN MOTORS	***800 ADMIRAL CALLAHAM***	***SW 0 - 1/8 (0.093 mi.)***	***B4***	***9***
REDWOOD CLEANERS	***784 ADMIRAL CALLAHAN***	***SW 1/8 - 1/4 (0.163 mi.)***	***D16***	***34***
SHELL SERVICE STATIO	***708 ADMIRAL CALLAGHA***	***SW 1/8 - 1/4 (0.247 mi.)***	***F20***	***48***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TARGET STORE T0331	904 ADMIRAL CALLAGHA	N 1/8 - 1/4 (0.167 mi.)	17	41

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, has revealed that there are 10 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AVERY GREENE MOTORS	***800 ADMIRAL CALLAGHA***	***SW 0 - 1/8 (0.083 mi.)***	***A3***	***8***
Database: SOLANO CO. LUST, Date of Government Version: 06/09/2016 Facility Id: 10148 Facility Status: I				
AVERY GREEN MOTORS	***800 ADMIRAL CALLAHAM***	***SW 0 - 1/8 (0.093 mi.)***	***B4***	***9***
Database: LUST, Date of Government Version: 09/12/2016 Global Id: T0609500217 Status: Completed - Case Closed				
AVERY GREENE MOTORS	***800 ADMIRAL CALLAGHA***	***SW 0 - 1/8 (0.093 mi.)***	***B5***	***12***
Database: LUST REG 2, Date of Government Version: 09/30/2004				

date9: 2/21/1995
Facility Id: 48-0232
Facility Status: Case Closed

TELL RENTAL INC. ***711 ADMIRAL CALLAGHA*** ***SW 1/8 - 1/4 (0.249 mi.)*** ***F21*** ***51***
Database: SOLANO CO. LUST, Date of Government Version: 06/09/2016
Facility Id: 10827
Facility Status: I

TELL RENTALS 711 ADMRIAL CALLAGHA SW 1/8 - 1/4 (0.249 mi.) F23 53
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 09/12/2016
Global Id: T0609591159
date9: 7/2/2001
Status: Completed - Case Closed
Facility Id: 48-0363
Facility Status: Case Closed

VALLEJO TOYOTA ***1001 ADMIRAL CALLAGH*** ***NNE 1/4 - 1/2 (0.329 mi.)*** ***G24*** ***54***
Database: SOLANO CO. LUST, Date of Government Version: 06/09/2016
Database: LUST, Date of Government Version: 09/12/2016
Facility Id: 10638
Global Id: T0609500305
Facility Status: I
Status: Completed - Case Closed

TAYLOR CLASSIC MOTOR ***1001 ADMIRAL CALLAGH*** ***NNE 1/4 - 1/2 (0.329 mi.)*** ***G25*** ***56***
Database: LUST REG 2, Date of Government Version: 09/30/2004
date9: 7/22/1998
Facility Id: 48-0335
Facility Status: Case Closed

TOSCO - FACILITY # 6 ***223 FAIRGROUNDS DR*** ***SW 1/4 - 1/2 (0.354 mi.)*** ***H26*** ***58***
Database: SOLANO CO. LUST, Date of Government Version: 06/09/2016
Database: LUST, Date of Government Version: 09/12/2016
Facility Id: 10671
Global Id: T0609500168
Facility Status: I
Status: Completed - Case Closed

CHEVRON ***200 FAIRGROUNDS DR*** ***SW 1/4 - 1/2 (0.355 mi.)*** ***H27*** ***66***
Database: SOLANO CO. LUST, Date of Government Version: 06/09/2016
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 09/12/2016
Facility Id: 10223
Global Id: T0609500030
Facility Status: I
date9: 9/23/1997
Status: Completed - Case Closed
Facility Id: 48-0032
Facility Status: Case Closed

Lower Elevation	Address	Direction / Distance	Map ID	Page

SOLANO COUNTY FAIRGR ***900 FAIRGROUNDS*** ***NNW 1/4 - 1/2 (0.375 mi.)*** ***28*** ***68***
Database: SOLANO CO. LUST, Date of Government Version: 06/09/2016
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 09/12/2016
Facility Id: 101632

Global Id: T0609500212
Facility Status: I
date9: 4/24/1998
Status: Completed - Case Closed
Facility Id: 48-0227
Facility Status: Case Closed

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, has revealed that there is 1 SLIC site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
VALLEJO CORNERS DRY	950 ADMIRAL CALLAGHA	NNE 1/8 - 1/4 (0.153 mi.)	E13	31
Database: SLIC, Date of Government Version: 09/12/2016 Facility Status: Completed - Case Closed Global Id: T10000008140				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 4 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AVERY GREENE MOTORS	***800 ADMIRAL CALLAGHA***	***SW 0 - 1/8 (0.093 mi.)***	***B5***	***12***
Database: SOLANO CO. UST, Date of Government Version: 09/26/2016 Facility Id: 10148 Facility Status: I				
VALERO GAS & FOOD	501 FAIRGROUNDS DR	W 1/8 - 1/4 (0.142 mi.)	C10	23
Database: SOLANO CO. UST, Date of Government Version: 09/26/2016 Database: UST, Date of Government Version: 09/12/2016 Facility Id: 10837 Facility Status: A Facility Id: 10837				
SHELL ADMIRAL CALLAG	708 ADMIRAL CALLAGHA	SW 1/8 - 1/4 (0.247 mi.)	F19	47
Database: SOLANO CO. UST, Date of Government Version: 09/26/2016 Database: UST, Date of Government Version: 09/12/2016 Facility Id: 10743 Facility Status: I Facility Status: T Facility Id: 10743				
TELL RENTALS INC	711 ADMIRAL CALLAGHA	SW 1/8 - 1/4 (0.249 mi.)	F22	52
Database: SOLANO CO. UST, Date of Government Version: 09/26/2016 Facility Id: 10827 Facility Status: I				

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 07/06/2016 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
OIL CHANGER #624	794 ADMIRAL CALLAGHA	SW 1/8 - 1/4 (0.130 mi.)	A7	20

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 4 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AVERY GREENE MOTORS Status: A Tank Status: A Comp Number: 10735	***800 ADMIRAL CALLAGHA***	***SW 0 - 1/8 (0.093 mi.)***	***B5***	***12***
DJ'S LIQUOR AND FOOD Status: A Tank Status: A Comp Number: 12145	***501 FAIRGROUNDS DR***	***W 1/8 - 1/4 (0.142 mi.)***	***C8***	***21***
SHELL STATION Status: A Tank Status: A Comp Number: 11211	***708 ADMIRAL CALLAGHA***	***SW 1/8 - 1/4 (0.247 mi.)***	***F18***	***45***
TELL RENTAL INC. Status: A Tank Status: A Comp Number: 12113	***711 ADMIRAL CALLAGHA***	***SW 1/8 - 1/4 (0.249 mi.)***	***F21***	***51***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AVERY GREEN MOTORS Facility Id: 00000010735	***800 ADMIRAL CALLAHAM***	***SW 0 - 1/8 (0.093 mi.)***	***B4***	***9***
AHMED Facility Id: 00000068986	***501 FAIRGROUNDS DR***	***W 1/8 - 1/4 (0.142 mi.)***	***C9***	***22***

EXECUTIVE SUMMARY

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 4 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AVERY GREEN MOTORS Facility Id: 48002408 Status: A	***800 ADMIRAL CALLAHAM***	***SW 0 - 1/8 (0.093 mi.)***	***B4***	***9***
DJ'S LIQUOR AND FOOD Facility Id: 48001042 Status: A	***501 FAIRGROUNDS DR***	***W 1/8 - 1/4 (0.142 mi.)***	***C8***	***21***
SHELL STATION Facility Id: 48000544 Status: A	***708 ADMIRAL CALLAGHA***	***SW 1/8 - 1/4 (0.247 mi.)***	***F18***	***45***
TELL RENTAL INC. Facility Id: 48001565 Status: A	***711 ADMIRAL CALLAGHA***	***SW 1/8 - 1/4 (0.249 mi.)***	***F21***	***51***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/21/2016 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
SAFEWAY STORE 989	***774 ADMIRAL CALLAGHA***	***SW 1/8 - 1/4 (0.163 mi.)***	***D15***	***32***

DRYCLEANERS: 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 cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 06/02/2016 has revealed that there are 2 DRYCLEANERS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
REDWOOD CLEANERS (DB EPA Id: CAL000401954	760 ADMIRAL CALLAGHA	SW 1/8 - 1/4 (0.159 mi.)	14	32

Lower Elevation	Address	Direction / Distance	Map ID	Page
T & J CLEANERS	***950 ADMIRAL CALLAGHN***	***NNE 1/8 - 1/4 (0.153 mi.)***	***E12***	***27***

EPA Id: CAL000251794
EPA Id: CAL000304584

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 5 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AVERY GREEN MOTORS Reg Id: 48-0232	***800 ADMIRAL CALLAHAM***	***SW 0 - 1/8 (0.093 mi.)***	***B4***	***9***
VALLEJO TOYOTA Reg Id: 48-0335	***1001 ADMIRAL CALLAGH***	***NNE 1/4 - 1/2 (0.329 mi.)***	***G24***	***54***
TOSCO - FACILITY # 6 Reg Id: 48-0179	***223 FAIRGROUNDS DR***	***SW 1/4 - 1/2 (0.354 mi.)***	***H26***	***58***
CHEVRON Reg Id: 48-0032	***200 FAIRGROUNDS DR***	***SW 1/4 - 1/2 (0.355 mi.)***	***H27***	***66***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SOLANO COUNTY FAIRGR Reg Id: 48-0227	***900 FAIRGROUNDS***	***NNW 1/4 - 1/2 (0.375 mi.)***	***28***	***68***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 3 EDR Hist Auto sites within approximately 0.125 miles of the target property.

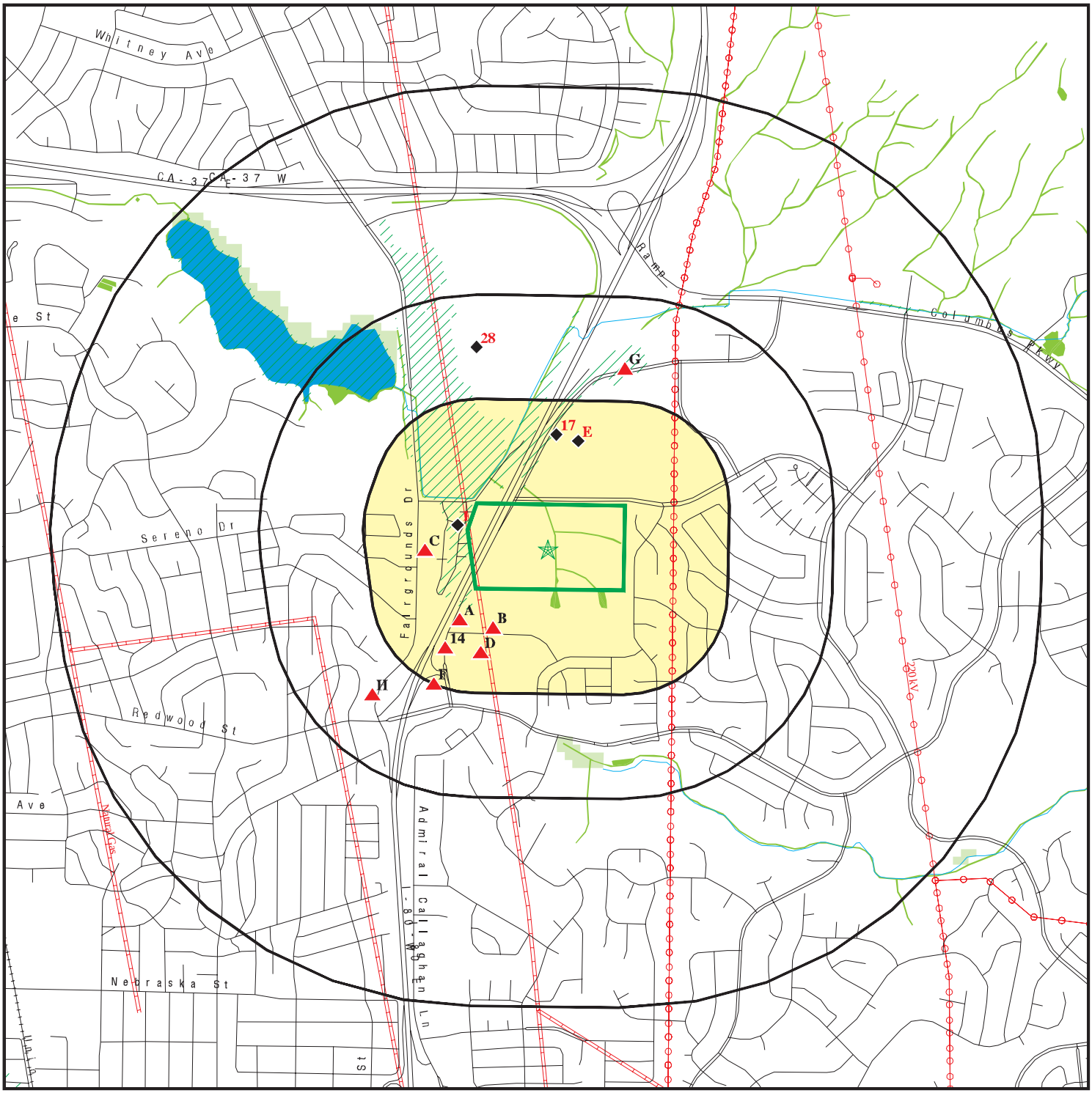
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	800 ADMIRAL CALLAGH	SW 0 - 1/8 (0.083 mi.)	A2	8
Not reported	510 FAIRGROUNDS DR	W 0 - 1/8 (0.108 mi.)	C6	20

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	3 CABANA ST	WNW 0 - 1/8 (0.026 mi.)	1	8

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 04772246.2R



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- 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: Cooke Property	CLIENT: Engeo Inc.
ADDRESS: Turner Parkway Vallejo CA 94591	CONTACT: Travis Chatters INQUIRY #: 04772246.2r
LAT/LONG: 38.128856 / 122.223593	DATE: November 03, 2016 7:36 pm

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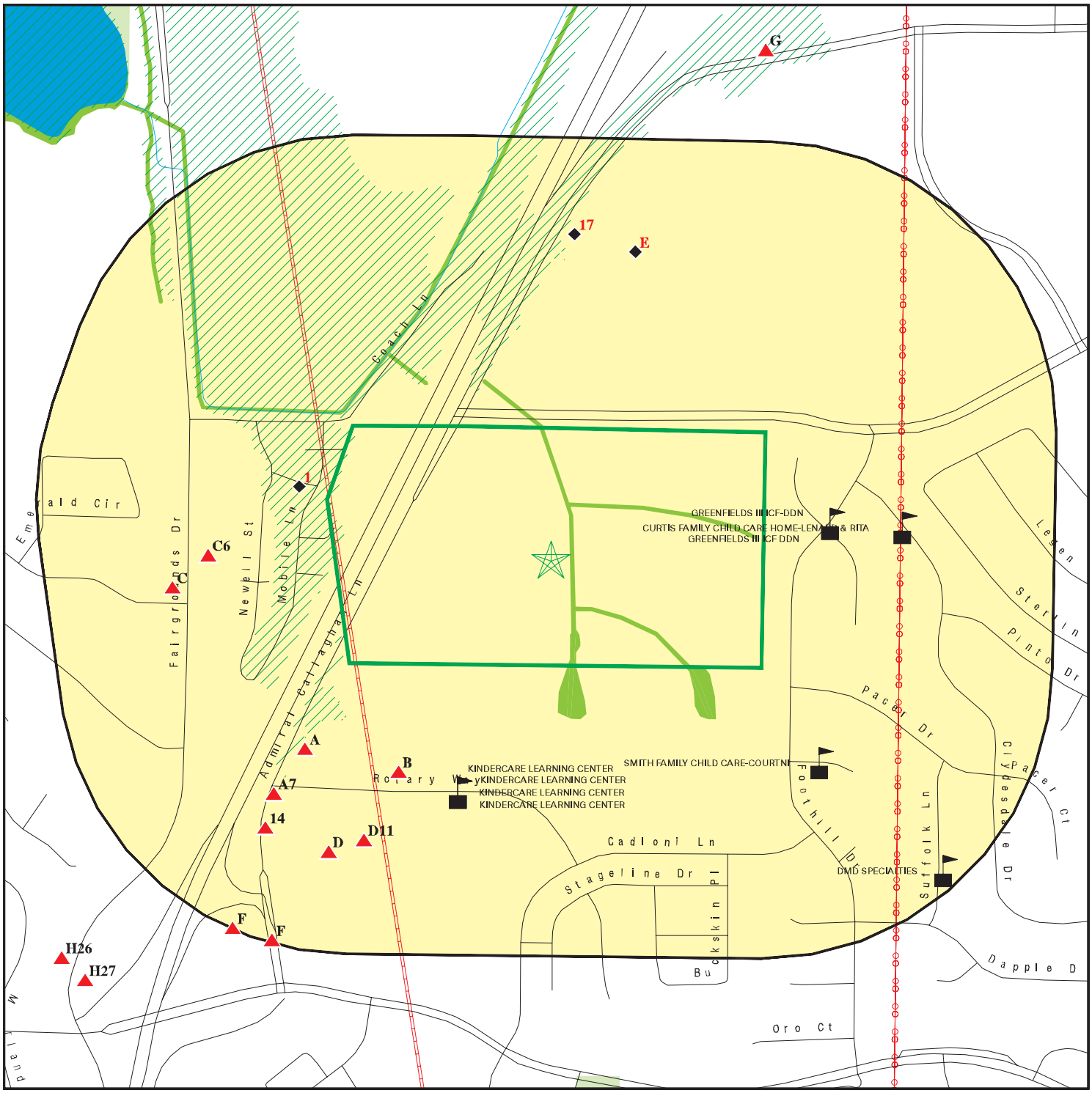
DETAIL MAP - 04772246.2R



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- 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: Cooke Property ADDRESS: Turner Parkway Vallejo CA 94591 LAT/LONG: 38.128856 / 122.223593	CLIENT: Engeo Inc. CONTACT: Travis Chatters INQUIRY #: 04772246.2r DATE: November 03, 2016 7:37 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
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		0	1	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	0	0	NR	0
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		3	2	5	NR	NR	10

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
SLIC	0.500		0	1	0	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	3	NR	NR	NR	4
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								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	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
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
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		1	3	NR	NR	NR	4
HIST UST	0.250		1	1	NR	NR	NR	2
CA FID UST	0.250		1	3	NR	NR	NR	4
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	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
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		0	1	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
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	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	2	NR	NR	NR	2
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
HIST CORTESE	0.500		1	0	4	NR	NR	5
HWP	1.000		0	0	0	0	NR	0
HWT	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
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
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
ECHO	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		3	NR	NR	NR	NR	3
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	12	21	9	0	0	42

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
WNW
< 1/8
0.026 mi.
138 ft.

3 CABANA ST
VALLEJO, CA 94589

Database(s): **EDR Hist Auto**
EDR ID Number: **1015397995**
EPA ID Number: **N/A**

Relative:
Lower

Actual:
88 ft.

EDR Historical Auto Stations:
Name: K & M AUTO BODY
Year: 2009
Address: 3 CABANA ST

A2
SW
< 1/8
0.083 mi.
437 ft.

800 ADMIRAL CALLAGHAN LN
VALLEJO, CA 94591
Site 1 of 3 in cluster A

Database(s): **EDR Hist Auto**
EDR ID Number: **1015637366**
EPA ID Number: **N/A**

Relative:
Higher

Actual:
100 ft.

EDR Historical Auto Stations:
Name: AVERY GREENE MOTORS BODY SHOP
Year: 1999
Address: 800 ADMIRAL CALLAGHAN LN

Name: AVERY GREENE MOTORS BODY SHOP
Year: 2000
Address: 800 ADMIRAL CALLAGHAN LN

A3
SW
< 1/8
0.083 mi.
437 ft.

AVERY GREENE MOTORS
800 ADMIRAL CALLAGHAN LN
VALLEJO, CA 94590
Site 2 of 3 in cluster A

Database(s): **LUST**, **HAZNET**
EDR ID Number: **S112849909**
EPA ID Number: **N/A**

Relative:
Higher

Actual:
100 ft.

SOLANO CO. LUST:
Region: SOLANO
Facility ID: 10148
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: 707-551-3200
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

HAZNET:
envid: S112849909
Year: 1994
GEPAID: CAC000884288
Contact: AVERY GREENE MOTORS
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 800 ADMIRAL CALLAGHAN
Mailing City,St,Zip: VALLEJO, CA 945900000
Gen County: Not reported
TSD EPA ID: CAD004771168
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more

AVERY GREENE MOTORS (Continued) **S112849909**

Disposal Method: Recycler
Tons: .2750
Cat Decode: Other empty containers 30 gallons or more
Method Decode: Recycler
Facility County: Solano

B4 **AVERY GREEN MOTORS** **RCRA-SQG 1000372294**
SW **800 ADMIRAL CALLAHAM LN** **LUST CAD981632136**
< 1/8 **VALLEJO, CA 94590** **HIST UST**
0.093 mi. **CA FID UST**
490 ft. **Site 1 of 2 in cluster B** **HIST CORTESE**

Relative: Higher

Actual: 107 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: AVERY GREEN MOTORS
Facility address: 800 ADMIRAL CALLAHAM LN
VALLEJO, CA 94590
EPA ID: CAD981632136
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: AVERY GREEN
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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
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

AVERY GREEN MOTORS (Continued) **1000372294**

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:	09/01/1996
Site name:	AVERY GREEN MOTORS
Classification:	Small Quantity Generator

Date form received by agency:	12/09/1986
Site name:	AVERY GREEN MOTORS
Classification:	Large Quantity Generator

Violation Status: No violations found

LUST:

Region:	STATE
Global Id:	T0609500217
Latitude:	38.126437
Longitude:	-122.226264
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/21/1995
Lead Agency:	SOLANO COUNTY LOP
Case Worker:	MCK
Local Agency:	SOLANO COUNTY LOP
RB Case Number:	48-0232
LOC Case Number:	10148
File Location:	Not reported
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0609500217
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

Status History:

Global Id:	T0609500217
Status:	Completed - Case Closed

AVERY GREEN MOTORS (Continued) **1000372294**

Status Date: 02/21/1995

Global Id: T0609500217
Status: Open - Case Begin Date
Status Date: 11/09/1992

Global Id: T0609500217
Status: Open - Site Assessment
Status Date: 11/09/1992

Global Id: T0609500217
Status: Open - Site Assessment
Status Date: 09/08/1993

Regulatory Activities:
Global Id: T0609500217
Action Type: Other
Date: 11/09/1992
Action: Leak Discovery

Global Id: T0609500217
Action Type: Other
Date: 11/09/1992
Action: Leak Reported

Global Id: T0609500217
Action Type: Other
Date: 11/09/1992
Action: Leak Stopped

HIST UST:
File Number: 000211AA
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000211AA.pdf
Region: STATE
Facility ID: 00000010735
Facility Type: Other
Other Type: AUTO DEALER
Contact Name: AVERY GREENE
Telephone: 7075531100
Owner Name: AVERY GREENE MOTORS AVERY GREE
Owner Address: 800 ADMIRAL CALLAGHAN LANE
Owner City,St,Zip: VALLEJO, CA 94590
Total Tanks: 0003

Tank Num: 001
Container Num: 003
Year Installed: 83
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: 001

AVERY GREEN MOTORS (Continued) **1000372294**

Year Installed: 83
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor

Tank Num: 003
Container Num: 002
Year Installed: 1978
Tank Capacity: 00000200
Tank Used for: PRODUCT
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 48002408
Regulated By: UTNKA
Regulated ID: 00010735
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: VALLEJO 94590
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:
Region: CORTESE
Facility County Code: 48
Reg By: LTNKA
Reg Id: 48-0232

B5 **AVERY GREENE MOTORS** **LUST U003641170**
SW **800 ADMIRAL CALLAGHAN LN** **UST N/A**
< 1/8 **VALLEJO, CA 94590** **SWEEPS UST**
0.093 mi. **EMI**
490 ft. **Site 2 of 2 in cluster B**

Relative: Higher

Actual: 107 ft.

LUST REG 2:
Region: 2
Facility Id: 48-0232
Facility Status: Case Closed
Case Number: 10148
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK

AVERY GREENE MOTORS (Continued) **U003641170**

Date Leak Confirmed: 9/8/1993
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 11/9/1992
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SOLANO CO. UST:
Facility Id: 10148
Facility Status: Inactive
Decode for Facility Status: Closed
Facility Phone: 707-551-3200

Inventory Number: 1
Inventory Type: Underground Storage Tank (1)
Inventory Description: Not reported
Permit Expire/Last Service: Not reported
Last Service Date: Not reported

Inventory Number: 2
Inventory Type: Underground Storage Tank (1)
Inventory Description: Not reported
Permit Expire/Last Service: Not reported
Last Service Date: Not reported

Inventory Number: 3
Inventory Type: Underground Storage Tank (1)
Inventory Description: Not reported
Permit Expire/Last Service: Not reported
Last Service Date: Not reported

SWEEPS UST:
Status: Active
Comp Number: 10735
Number: 9
Board Of Equalization: 44-027645
Referral Date: 10-03-89
Action Date: 10-03-89
Created Date: 02-29-88
Owner Tank Id: 3
SWRCB Tank Id: 48-087-010735-000001
Tank Status: A
Capacity: 1000
Active Date: 03-07-89
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 3

Status: Active
Comp Number: 10735
Number: 9

AVERY GREENE MOTORS (Continued) **U003641170**

Board Of Equalization:	44-027645
Referral Date:	10-03-89
Action Date:	10-03-89
Created Date:	02-29-88
Owner Tank Id:	1
SWRCB Tank Id:	48-087-010735-000002
Tank Status:	A
Capacity:	1000
Active Date:	03-07-89
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	10735
Number:	9
Board Of Equalization:	44-027645
Referral Date:	10-03-89
Action Date:	10-03-89
Created Date:	02-29-88
Owner Tank Id:	2
SWRCB Tank Id:	48-087-010735-000003
Tank Status:	A
Capacity:	550
Active Date:	03-07-89
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

EMI:

Year:	1996
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
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:	1997
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported

AVERY GREENE MOTORS (Continued) **U003641170**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
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:	1998
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
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:	1999
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
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:	2000
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

AVERY GREENE MOTORS (Continued) **U003641170**

Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2001
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
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:	2002
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
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:	2003
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
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:	2004
County Code:	48
Air Basin:	SF

AVERY GREENE MOTORS (Continued) **U003641170**

Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.633
Reactive Organic Gases Tons/Yr:	1.0356836
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:	2005
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.634
Reactive Organic Gases Tons/Yr:	1.0365141
Carbon Monoxide Emissions Tons/Yr:	.004
NOX - Oxides of Nitrogen Tons/Yr:	.016
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:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.838
Reactive Organic Gases Tons/Yr:	.5091583
Carbon Monoxide Emissions Tons/Yr:	.004
NOX - Oxides of Nitrogen Tons/Yr:	.016
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:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

AVERY GREENE MOTORS (Continued) **U003641170**

Total Organic Hydrocarbon Gases Tons/Yr:	1.008
Reactive Organic Gases Tons/Yr:	.5811316
Carbon Monoxide Emissions Tons/Yr:	.003
NOX - Oxides of Nitrogen Tons/Yr:	.012
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:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.609
Reactive Organic Gases Tons/Yr:	.4706932
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:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.63400000000000001
Reactive Organic Gases Tons/Yr:	0.4904773
Carbon Monoxide Emissions Tons/Yr:	4.0000000000000001E-3
NOX - Oxides of Nitrogen Tons/Yr:	0.016
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2010
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.35799999999999998
Reactive Organic Gases Tons/Yr:	0.30080050000000003
Carbon Monoxide Emissions Tons/Yr:	5.0000000000000001E-3
NOX - Oxides of Nitrogen Tons/Yr:	0.02
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0

AVERY GREENE MOTORS (Continued) **U003641170**

Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year:	2011
County Code:	48
Air Basin:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.373
Reactive Organic Gases Tons/Yr:	0.3108047
Carbon Monoxide Emissions Tons/Yr:	0.004
NOX - Oxides of Nitrogen Tons/Yr:	0.018
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:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.373
Reactive Organic Gases Tons/Yr:	0.3108047
Carbon Monoxide Emissions Tons/Yr:	0.004
NOX - Oxides of Nitrogen Tons/Yr:	0.018
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:	SF
Facility ID:	10405
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.394
Reactive Organic Gases Tons/Yr:	0.3294203
Carbon Monoxide Emissions Tons/Yr:	0.005
NOX - Oxides of Nitrogen Tons/Yr:	0.022
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:	SF
Facility ID:	10405

AVERY GREENE MOTORS (Continued) **U003641170**

Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.461332481
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0.005956667
NOX - Oxides of Nitrogen Tons/Yr:	0.023865981
SOX - Oxides of Sulphur Tons/Yr:	9.671e-005
Particulate Matter Tons/Yr:	0.000510571
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.000510571

C6 **EDR Hist Auto** **1015530523**
West **510 FAIRGROUNDS DR** **N/A**
< 1/8 **VALLEJO, CA 94589**
0.108 mi.
568 ft. **Site 1 of 4 in cluster C**

Relative:
Higher

Actual:
114 ft.

EDR Historical Auto Stations:

Name:	PJS MBL AUTO MNTNNC & REPAI
Year:	2004
Address:	510 FAIRGROUNDS DR

A7 **OIL CHANGER #624** **AST** **A100422939**
SW **794 ADMIRAL CALLAGHAN LN.** **N/A**
1/8-1/4 **VALLEJO, CA 94591**
0.130 mi.
684 ft. **Site 3 of 3 in cluster A**

Relative:
Higher

Actual:
102 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Oil Changer, Inc.
Total Gallons:	Not reported
CERSID:	10100713
Facility ID:	48-000-010866
Business Name:	Oil Changer, Inc.
Phone:	7076459688
Fax:	Not reported
Mailing Address:	P.O. Box 9037
Mailing Address City:	Pleasanton
Mailing Address State:	CA
Mailing Address Zip Code:	94566
Operator Name:	Oil Changer, Inc.
Operator Phone:	9257345800
Owner Phone:	9257345800
Owner Mail Address:	P.O. Box 9037
Owner State:	CA
Owner Zip Code:	94566
Owner Country:	United States
Property Owner Name:	Redwood Plaza Investments, LP
Property Owner Phone:	Not reported
Property Owner Mailing Address:	7700 College Town Dr., Suite 118
Property Owner City:	Sacramento
Property Owner Stat :	CA
Property Owner Zip Code:	95826

OIL CHANGER #624 (Continued) **A100422939**

Property Owner Country: United States
EPAID: CAL000174653

C8
West
1/8-1/4
0.142 mi.
748 ft.

DJ'S LIQUOR AND FOOD **SWEEPS UST S101595060**
501 FAIRGROUNDS DR **CA FID UST N/A**
VALLEJO, CA 94590

Site 2 of 4 in cluster C

Relative:
Higher

Actual:
120 ft.

SWEEPS UST:

Status:	Active
Comp Number:	12145
Number:	9
Board Of Equalization:	44-027661
Referral Date:	07-10-89
Action Date:	07-10-89
Created Date:	07-10-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	48-087-012145-000001
Tank Status:	A
Capacity:	12000
Active Date:	07-10-89
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	3

Status:	Active
Comp Number:	12145
Number:	9
Board Of Equalization:	44-027661
Referral Date:	07-10-89
Action Date:	07-10-89
Created Date:	07-10-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	48-087-012145-000002
Tank Status:	A
Capacity:	12000
Active Date:	07-10-89
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	12145
Number:	9
Board Of Equalization:	44-027661
Referral Date:	07-10-89
Action Date:	07-10-89
Created Date:	07-10-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	48-087-012145-000003
Tank Status:	A
Capacity:	12000
Active Date:	07-10-89
Tank Use:	M.V. FUEL
STG:	P

DJ'S LIQUOR AND FOOD (Continued) **S101595060**

Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 48001042
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 501 FAIRGROUNDS DR
Mailing Address 2: Not reported
Mailing City,St,Zip: VALLEJO 94590
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

C9 **AHMED** **HIST UST** **U001598803**
West **501 FAIRGROUNDS DR** **HAZNET** **N/A**
1/8-1/4 **VALLEJO, CA 94589**
0.142 mi.
748 ft. **Site 3 of 4 in cluster C**

Relative:
Higher

Actual:
120 ft.

HIST UST:
File Number: 00021237
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00021237.pdf
Region: STATE
Facility ID: 00000068986
Facility Type: Gas Station
Other Type: Not reported
Contact Name: Not reported
Telephone: 7077456691
Owner Name: CUSTOMER COMPANY
Owner Address: 1765 PARK ROAD
Owner City,St,Zip: BENICIA, CA 94510
Total Tanks: 0003

Tank Num: 001
Container Num: 10-R
Year Installed: 1984
Tank Capacity: 00012000
Tank Used for: WASTE
Type of Fuel: 2
Container Construction Thickness: X
Leak Detection: Stock Inventor, Sensor Instrument, Pressure Test, 10

Tank Num: 002
Container Num: 10-U
Year Installed: 1984
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED

AHMED (Continued) **U001598803**

Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, Sensor Instrument, Pressure Test, 10

Tank Num: 003
Container Num: 10-P
Year Installed: 1984
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, Sensor Instrument, Pressure Test, 10

Click here for Geo Tracker PDF:

HAZNET:
envid: U001598803
Year: 2013
GEPAID: CAC002714407
Contact: WESTCO GAS INC.
Telephone: 5103012365
Mailing Name: Not reported
Mailing Address: 3480 RIDGEWOOD WAY
Mailing City,St,Zip: RICHMOND, CA 94806
Gen County: Solano
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.075
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Not reported

C10 **VALERO GAS & FOOD** **UST** **U003641240**
West **501 FAIRGROUNDS DR** **N/A**
1/8-1/4 **VALLEJO, CA 94590**
0.142 mi.
748 ft. **Site 4 of 4 in cluster C**

Relative:
Higher

Actual:
120 ft.

UST:
Facility ID: 10837
Permitting Agency: SOLANO COUNTY
Latitude: 38.129847
Longitude: -122.228365

SOLANO CO. UST:
Facility Id: 10837
Facility Status: Active
Decode for Facility Status: Operating
Facility Phone: 707-644-3720

Inventory Number: 1
Inventory Type: Gas Station - Retail (111)
Inventory Description: Not reported
Permit Expire/Last Service: CONSULTATION - PHONE/COUNTER 10/31/17, 10/31/17

VALERO GAS & FOOD (Continued) **U003641240**

Last Service Date: 05/17/2016

Inventory Number: 2
Inventory Type: Gas Station - Retail (111)
Inventory Description: Not reported
Permit Expire/Last Service: CONSULTATION - PHONE/COUNTER 10/31/17, 10/31/17
Last Service Date: 05/17/2016

Inventory Number: 3
Inventory Type: Gas Station - Retail (111)
Inventory Description: Not reported
Permit Expire/Last Service: CONSULTATION - PHONE/COUNTER 10/31/17, 10/31/17
Last Service Date: 05/17/2016

D11 **SAFEWAY STORE NO 989** **RCRA-LQG 1014950622**
SSW **774 ADM CALLAGHAN LN** **FINDS CAR000226332**
1/8-1/4 **VALLEJO, CA 94591** **ECHO**
0.152 mi.
802 ft. **Site 1 of 3 in cluster D**

Relative: Higher

Actual: 100 ft.

RCRA-LQG:
Date form received by agency: 11/13/2014
Facility name: SAFEWAY STORE NO 989
Facility address: 774 ADM CALLAGHAN LN
VALLEJO, CA 94591
EPA ID: CAR000226332
Mailing address: 5918 STONERIDGE MALL RD
PLEASANTON, CA 94588
Contact: KEITH B POWERS
Contact address: 5918 STONERIDGE MALL RD
PLEASANTON, CA 94588
Contact country: US
Contact telephone: 925-226-5655
Contact email: KEITH.POWERS@SAFEWAY.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: REDWOOD PLAZA INVESTMENTS LP
Owner/operator address: 2581 FAIR OAKS BLVD IN TRUST FOR BOFA SERV GRP BANK OF THE
SACRAMENTO, CA 95825
Owner/operator country: US
Owner/operator telephone: Not reported

SAFEWAY STORE NO 989 (Continued) **1014950622**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1981
Owner/Op end date: Not reported

Owner/operator name: SAFEWAY
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/22/1981
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: 122
. Waste name: 122

. Waste code: 131
. Waste name: 131

. Waste code: 141
. Waste name: 141

. Waste code: 214
. Waste name: 214

. Waste code: 311
. Waste name: 311

. Waste code: 331
. Waste name: 331

. Waste code: 561
. Waste name: 561

. Waste code: 791
. Waste name: 791

. Waste code: D001

SAFEWAY STORE NO 989 (Continued) **1014950622**

. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D009
. Waste name: MERCURY

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: P001
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Historical Generators:
Date form received by agency: 12/17/2012
Site name: SAFEWAY STORE NO 989
Classification: Not a generator, verified

Date form received by agency: 06/11/2012
Site name: SAFEWAY STORE NO 989
Classification: Large Quantity Generator

. Waste code: 131
. Waste name: 131

. Waste code: 214
. Waste name: 214

. Waste code: 311
. Waste name: 311

. Waste code: 561
. Waste name: 561

. Waste code: 791
. Waste name: 791

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Violation Status: No violations found

FINDS:

SAFEWAY STORE NO 989 (Continued) **1014950622**

Registry ID: 110055075083

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.

ECHO:
Envid: 1014950622
Registry ID: 110055075083
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110055075083

E12
NNE
1/8-1/4
0.153 mi.
808 ft.

T & J CLEANERS **FINDS** **1004440822**
950 ADMIRAL CALLAGHN LN **DRYCLEANERS** **N/A**
VALLEJO, CA 94591 **EMI**

Site 1 of 2 in cluster E

Relative:
Lower

Actual:
92 ft.

FINDS:

Registry ID: 110001154198

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

HAZARDOUS AIR POLLUTANT MAJOR

DRYCLEANERS:
EPA Id: CAL000251794
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Description: Power Laundries, Family and Commercial
Create Date: 05/09/2002
Facility Active: No
Inactive Date: 06/30/2004
Facility Addr2: Not reported
Owner Name: VALLEJO CORNER CLEANERS
Owner Address: 950 ADMIRAL CALLAGHAN LN
Owner Address 2: Not reported
Owner Telephone: 7076442512
Contact Name: CHUR SOON SHIN
Contact Address: 950 ADMIRAL CALLAGHAN LN
Contact Address 2: Not reported
Contact Telephone: 7076442512
Mailing Name: Not reported
Mailing Address 1: 950 ADMIRAL CALLAGHAN LN
Mailing Address 2: Not reported
Mailing City: VALLEJO
Mailing State: CA
Mailing Zip: 94591
Owner Fax: 1

T & J CLEANERS (Continued) **1004440822**

Region Code:	Not reported
EPA Id:	CAL000304584
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	03/20/2006
Facility Active:	No
Inactive Date:	06/30/2011
Facility Addr2:	Not reported
Owner Name:	JAE YUN
Owner Address:	1111 MARIN AVE APT 8
Owner Address 2:	Not reported
Owner Telephone:	5105583351
Contact Name:	JAE YUN
Contact Address:	950 ADMIRAL CALLAGHAN LN
Contact Address 2:	Not reported
Contact Telephone:	7676442512
Mailing Name:	Not reported
Mailing Address 1:	950 ADMIRAL CALLAGHAN LN
Mailing Address 2:	Not reported
Mailing City:	VALLEJO
Mailing State:	CA
Mailing Zip:	945913680
Owner Fax:	1
Region Code:	0000000000

EMI:

Year:	1990
County Code:	48
Air Basin:	SF
Facility ID:	7731
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
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:	1995
County Code:	48
Air Basin:	SF
Facility ID:	7731
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0

T & J CLEANERS (Continued) **1004440822**

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:	1996
County Code:	48
Air Basin:	SF
Facility ID:	7731
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1997
County Code:	48
Air Basin:	SF
Facility ID:	7731
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1998
County Code:	48
Air Basin:	SF
Facility ID:	7731
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

T & J CLEANERS (Continued) **1004440822**

Year:	1999
County Code:	48
Air Basin:	SF
Facility ID:	7731
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2000
County Code:	48
Air Basin:	SF
Facility ID:	7731
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2001
County Code:	48
Air Basin:	SF
Facility ID:	13801
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2002
County Code:	48
Air Basin:	SF
Facility ID:	13801
Air District Name:	BA
SIC Code:	7216

T & J CLEANERS (Continued) **1004440822**

Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2003
County Code:	48
Air Basin:	SF
Facility ID:	13801
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

E13 **VALLEJO CORNERS DRY CLEANERS** **SLIC** **S118504696**
NNE **950 ADMIRAL CALLAGHAN LANE** **N/A**
1/8-1/4 **VALLEJO, CA 94591**
0.153 mi.
808 ft. **Site 2 of 2 in cluster E**

Relative:
Lower

Actual:
92 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	12/15/2015
Global Id:	T10000008140
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	Not reported
Latitude:	38.1322
Longitude:	-122.22395
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	48S0039
File Location:	Regional Board
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Tetrachloroethylene (PCE)
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

14
SW
1/8-1/4
0.159 mi.
838 ft.

REDWOOD CLEANERS (DBA)
760 ADMIRAL CALLAGHAN LN
VALLEJO, CA 94591

DRYCLEANERS **S117572394**
N/A

Relative:
Higher

Actual:
101 ft.

DRYCLEANERS:

EPA Id:	CAL000401954
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	11/05/2014
Facility Active:	Yes
Inactive Date:	Not reported
Facility Addr2:	Not reported
Owner Name:	DONG YOUB LEE
Owner Address:	760 ADMIRAL CALLAGHAN LN
Owner Address 2:	Not reported
Owner Telephone:	7075528885
Contact Name:	DONG YOUB
Contact Address:	760 ADMIRAL CALLAGHAN LN
Contact Address 2:	Not reported
Contact Telephone:	7075528885
Mailing Name:	Not reported
Mailing Address 1:	760 ADMIRAL CALLAGHAN LN
Mailing Address 2:	Not reported
Mailing City:	VALLEJO
Mailing State:	CA
Mailing Zip:	94591
Owner Fax:	1
Region Code:	Not reported

D15
SW
1/8-1/4
0.163 mi.
861 ft.

SAFEWAY STORE 989
774 ADMIRAL CALLAGHAN LN
VALLEJO, CA 94590

RCRA NonGen / NLR **1000686622**
FINDS **CAD983639618**
ECHO

Site 2 of 3 in cluster D

Relative:
Higher

Actual:
99 ft.

RCRA NonGen / NLR:

Date form received by agency:	12/17/2012
Facility name:	SAFEWAY STORE 989
Facility address:	774 ADMIRAL CALLAGHAN LN VALLEJO, CA 94590
EPA ID:	CAD983639618
Contact:	KEITH B POWERS
Contact address:	5918 STONERIDGE MALL RD PLEASANTON, CA 94588
Contact country:	US
Contact telephone:	925-226-5655
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	SAFEWAY STORES INC
Owner/operator address:	47400 KATO RD FREMONT, CA 94538

SAFEWAY STORE 989 (Continued) **1000686622**

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT SPECIFIED
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2013
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: 06/17/1992
Site name: SAFEWAY
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110055054284

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.

ECHO:
Envid: 1000686622

SAFEWAY STORE 989 (Continued) **1000686622**

Registry ID: 110055054284
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110055054284

D16 **REDWOOD CLEANERS** **RCRA-SQG** **1000438521**
SW **784 ADMIRAL CALLAHAN** **EMI** **CAD981650336**
1/8-1/4 **VALLEJO, CA 94591**
0.163 mi.
861 ft. **Site 3 of 3 in cluster D**

Relative:
Higher

Actual:
99 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: REDWOOD CLEANERS
Facility address: 784 ADMIRAL CALLAHAN
VALLEJO, CA 94591
EPA ID: CAD981650336
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: LEE HWAN
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
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
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

REDWOOD CLEANERS (Continued) **1000438521**

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: 01/07/1987
Site name: REDWOOD CLEANERS
Classification: Large Quantity Generator

Violation Status: No violations found

EMI:
Year: 1990
County Code: 48
Air Basin: SF
Facility ID: 5072
Air District Name: BA
SIC Code: 7216
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 1995
County Code: 48
Air Basin: SF
Facility ID: 5072
Air District Name: BA
SIC Code: 7216
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 0
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: 1996
County Code: 48
Air Basin: SF
Facility ID: 5072
Air District Name: BA

REDWOOD CLEANERS (Continued) **1000438521**

SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
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:	1997
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
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:	1998
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1999
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0

REDWOOD CLEANERS (Continued) **1000438521**

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:	2000
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2001
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2002
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
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

REDWOOD CLEANERS (Continued) **1000438521**

Year:	2003
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
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:	2004
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.506
Reactive Organic Gases Tons/Yr:	0
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:	2005
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
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:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216

REDWOOD CLEANERS (Continued) **1000438521**

Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.135
Reactive Organic Gases Tons/Yr:	0
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:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.152
Reactive Organic Gases Tons/Yr:	.1061872
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:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.331
Reactive Organic Gases Tons/Yr:	0
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:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.33100000000000002
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0

REDWOOD CLEANERS (Continued) **1000438521**

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:	2010
County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.33100000000000002
Reactive Organic Gases Tons/Yr:	0.23123659999999999
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:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.331
Reactive Organic Gases Tons/Yr:	0
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:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.331
Reactive Organic Gases Tons/Yr:	0
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

REDWOOD CLEANERS (Continued) **1000438521**

County Code:	48
Air Basin:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.331
Reactive Organic Gases Tons/Yr:	0
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:	SF
Facility ID:	5072
Air District Name:	BA
SIC Code:	7216
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.330523554
Reactive Organic Gases Tons/Yr:	0
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

17
North
1/8-1/4
0.167 mi.
882 ft.

TARGET STORE T0331 **RCRA-SQG** **1014465417**
904 ADMIRAL CALLAGHAN LANE **CAR000218875**
VALLEJO, CA 94591

Relative:
Lower

Actual:
91 ft.

RCRA-SQG:

Date form received by agency:	03/01/2014
Facility name:	TARGET STORE T0331
Facility address:	904 ADMIRAL CALLAGHAN LANE VALLEJO, CA 945913680
EPA ID:	CAR000218875
Mailing address:	P.O. BOX 111 MINNEAPOLIS, MN 55440
Contact:	STEVE MUSSER
Contact address:	P.O. BOX 111 MINNEAPOLIS, MN 55440
Contact country:	Not reported
Contact telephone:	(800) 587-2228
Contact email:	POC@TARGET.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

TARGET STORE T0331 (Continued) **1014465417**

waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	TARGET CORPORATION
Owner/operator address:	P.O. BOX 111
	MINNEAPOLIS, MN 55440
Owner/operator country:	Not reported
Owner/operator telephone:	(800) 587-2228
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	11/01/1987
Owner/Op end date:	Not reported

Owner/operator name:	TARGET CORPORATION
Owner/operator address:	P.O. BOX 111
	MINNEAPOLIS, MN 55440
Owner/operator country:	Not reported
Owner/operator telephone:	(800) 587-2228
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	11/01/1987
Owner/Op end date:	Not reported

Owner/operator name:	TARGET CORP
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	10/28/1987
Owner/Op end date:	Not reported

Owner/operator name:	TARGET CORP
Owner/operator address:	PO BOX 111
	MINNEAPOLIS, MN 55440
Owner/operator country:	US
Owner/operator telephone:	800-587-2228
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	10/28/1987
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

TARGET STORE T0331 (Continued) **1014465417**

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 WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. 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 (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D018
. Waste name: BENZENE

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D026
. Waste name: CRESOL

. Waste code: D028
. Waste name: 1,2-DICHLOROETHANE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: P001

TARGET STORE T0331 (Continued) **1014465417**

. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P042
. Waste name: 1,2-BENZENEDIOL, 4-[1-HYDROXY-2-(METHYLAMINO)ETHYL]-, (R)- (OR) EPINEPHRINE

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

. Waste code: P081
. Waste name: 1,2,3-PROPANETRIOL, TRINITRATE (R) (OR) NITROGLYCERINE (R)

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U034
. Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

. Waste code: U035
. Waste name: BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U058
. Waste name: 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE (OR) CYCLOPHOSPHAMIDE

. Waste code: U072
. Waste name: BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

. Waste code: U150
. Waste name: L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U188
. Waste name: PHENOL

. Waste code: U200
. Waste name: RESERPINE (OR) YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-

. Waste code: U201
. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

TARGET STORE T0331 (Continued) **1014465417**

. Waste code: U279
. Waste name: CARBARYL (OR) 1-NAPHTHALENOL, METHYLCARBAMATE

Historical Generators:
Date form received by agency: 04/11/2011
Site name: TARGET STORE NO 0331
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: P001
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P046
. Waste name: ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE (OR) BENZENEETHANAMINE, ALPHA, ALPHA-DIMETHYL-

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Violation Status: No violations found

F18 **SHELL STATION** **SWEEPS UST** **S101595021**
SW **708 ADMIRAL CALLAGHAN LN** **CA FID UST** **N/A**
1/8-1/4 **VALLEJO, CA 94591**
0.247 mi.
1305 ft. **Site 1 of 6 in cluster F**

Relative:
Higher

Actual:
111 ft.

SWEEPS UST:
Status: Active
Comp Number: 11211
Number: 1
Board Of Equalization: 44-000074
Referral Date: 03-07-89
Action Date: 03-07-89
Created Date: 03-07-89

SHELL STATION (Continued) **S101595021**

Owner Tank Id: Not reported
SWRCB Tank Id: 48-087-011211-000001
Tank Status: A
Capacity: 12000
Active Date: 03-07-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 11211
Number: 1
Board Of Equalization: 44-000074
Referral Date: 03-07-89
Action Date: 03-07-89
Created Date: 03-07-89
Owner Tank Id: Not reported
SWRCB Tank Id: 48-087-011211-000002
Tank Status: A
Capacity: 12000
Active Date: 03-07-89
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 11211
Number: 1
Board Of Equalization: 44-000074
Referral Date: 03-07-89
Action Date: 03-07-89
Created Date: 03-07-89
Owner Tank Id: Not reported
SWRCB Tank Id: 48-087-011211-000003
Tank Status: A
Capacity: 12000
Active Date: 03-07-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 48000544
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: NONE
Mailing Address 2: Not reported
Mailing City,St,Zip: VALLEJO 94591
Contact: Not reported
Contact Phone: Not reported

SHELL STATION (Continued) **S101595021**

DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

F19 **SHELL ADMIRAL CALLAGHAN #126** **UST** **U003641219**
SW **708 ADMIRAL CALLAGHAN LN** **N/A**
1/8-1/4 **VALLEJO, CA 94590**
0.247 mi.
1305 ft. **Site 2 of 6 in cluster F**

Relative:
Higher

Actual:
111 ft.

UST:
Facility ID: 10743
Permitting Agency: SOLANO COUNTY
Latitude: 38.1251624
Longitude: -122.2259067

SOLANO CO. UST:
Facility Id: 10743
Facility Status: Inactive
Decode for Facility Status: Closed
Facility Phone: 707-554-0933

Inventory Number: 1
Inventory Type: Gas Station - Retail (111)
Inventory Description: Not reported
Permit Expire/Last Service: LICENSE/PERMIT INVESTIGATION 06/30/16, 06/30/16
Last Service Date: 08/25/2016

Inventory Number: 2
Inventory Type: Gas Station - Retail (111)
Inventory Description: Not reported
Permit Expire/Last Service: CONSTRUCTION / EQUIPMENT INSPECTION 06/30/16, 06/30/16
Last Service Date: 04/27/2016

Inventory Number: 3
Inventory Type: Gas Station - Retail (111)
Inventory Description: Not reported
Permit Expire/Last Service: IN-SERVICE TRAINING - TRAINEE 06/30/16, 06/30/16
Last Service Date: 03/01/2016

Inventory Number: 4
Inventory Type: Gas Station - Retail (111)
Inventory Description: Regular
Permit Expire/Last Service: ROUTINE - INITIAL (INVENTORIED) * Missing *
Last Service Date: 08/16/2016

Inventory Number: 5
Inventory Type: Gas Station - Retail (111)
Inventory Description: Premium
Permit Expire/Last Service: ROUTINE - INITIAL (INVENTORIED) * Missing *
Last Service Date: 08/16/2016

SHELL ADMIRAL CALLAGHAN #126 (Continued) **U003641219**

Inventory Number: 6
Inventory Type: Gas Station - Retail (111)
Inventory Description: Diesel
Permit Expire/Last Service: ROUTINE - INITIAL (INVENTORIED) * Missing *
Last Service Date: 08/16/2016

F20 **SHELL SERVICE STATION** **RCRA-SQG** **1005415622**
SW **708 ADMIRAL CALLAGHAN LN** **FINDS** **CAR000113720**
1/8-1/4 **VALLEJO, CA 94591** **HAZNET**
0.247 mi. **ECHO**
1305 ft. **Site 3 of 6 in cluster F**

Relative:
Higher

Actual:
111 ft.

RCRA-SQG:
Date form received by agency: 03/19/2002
Facility name: SHELL SERVICE STATION
Facility address: 708 ADMIRAL CALLAGHAN LN
S A P 136216
VALLEJO, CA 94590
EPA ID: CAR000113720
Mailing address: P O BOX 2648
HOUSTON, TX 772522648
Contact: SONDRA BIENVENU
Contact address: P O BOX 2648
HOUSTON, TX 772522648
Contact country: US
Contact telephone: (713) 241-5036
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: EQUILON ENT LLC DBA S O P U S
Owner/operator address: P O BOX 2648
HOUSTON, TX 77252
Owner/operator country: Not reported
Owner/operator telephone: (713) 241-5036
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

SHELL SERVICE STATION (Continued) **1005415622**

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 WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110012249496

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

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.

STATE MASTER

HAZNET:

envid: 1005415622
Year: 2010
GEPAID: CAR000113720
Contact: J. Traylor/ENV REPORTING ANALYST
Telephone: 7132416992
Mailing Name: Not reported
Mailing Address: PO BOX 3127
Mailing City,St,Zip: HOUSTON, TX 772530000
Gen County: Not reported
TSD EPA ID: UTD981552177
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Not reported
Tons: 0.06
Cat Decode: Other organic solids
Method Decode: Not reported
Facility County: Solano

envid: 1005415622
Year: 2010
GEPAID: CAR000113720
Contact: J. Traylor/ENV REPORTING ANALYST
Telephone: 7132416992
Mailing Name: Not reported
Mailing Address: PO BOX 3127

SHELL SERVICE STATION (Continued) **1005415622**

Mailing City,St,Zip: HOUSTON, TX 772530000
Gen County: Not reported
TSD EPA ID: CAD059494310
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.06255
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Solano

envid: 1005415622
Year: 2009
GEPAID: CAR000113720
Contact: R HULL/ENV. REPORTING ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DR 300G03
Mailing City,St,Zip: Houston, TX 770670000
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.03
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Solano

envid: 1005415622
Year: 2009
GEPAID: CAR000113720
Contact: R HULL/ENV. REPORTING ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DR 300G03
Mailing City,St,Zip: Houston, TX 770670000
Gen County: Not reported
TSD EPA ID: CAD008830290
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.06
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Solano

envid: 1005415622
Year: 2008
GEPAID: CAR000113720
Contact: R HULL/ENV. REPORTING ANALYST

SHELL SERVICE STATION (Continued) **1005415622**

Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DR 300G03
Mailing City,St,Zip: Houston, TX 770670000
Gen County: Not reported
TSD EPA ID: CAD008830290
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.015
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Solano

Click this hyperlink while viewing on your computer to access
9 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:
Envid: 1005415622
Registry ID: 110012249496
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110012249496

F21 **TELL RENTAL INC.** **LUST** **S101595091**
SW **711 ADMIRAL CALLAGHAN LN** **SWEEPS UST** **N/A**
1/8-1/4 **VALLEJO, CA 94590** **CA FID UST**
0.249 mi.
1314 ft. **Site 4 of 6 in cluster F**

Relative: Higher

Actual: 112 ft.

SOLANO CO. LUST:
Region: SOLANO
Facility ID: 10827
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: 707-644-4438
Program: 29S
Inventory Number: 1
Inventory Type: LOP - Closed Site (128)
Inventory Description: Not reported
Last service/permit exp: SAMPLING ACTIVITIES
Last service date: 08/01/2011

SWEEPS UST:
Status: Active
Comp Number: 12113
Number: 2
Board Of Equalization: 44-027649
Referral Date: 03-07-89
Action Date: 03-07-89
Created Date: 03-07-89
Owner Tank Id: Not reported
SWRCB Tank Id: 48-087-012113-000001
Tank Status: A
Capacity: 550
Active Date: 03-07-89
Tank Use: M.V. FUEL

TELL RENTAL INC. (Continued) **S101595091**

STG: P
Content: LEADED
Number Of Tanks: 2

Status: Active
Comp Number: 12113
Number: 2
Board Of Equalization: 44-027649
Referral Date: 03-07-89
Action Date: 03-07-89
Created Date: 03-07-89
Owner Tank Id: Not reported
SWRCB Tank Id: 48-087-012113-000002
Tank Status: A
Capacity: 550
Active Date: 03-07-89
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 48001565
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 821 GREENHEAD WAY
Mailing Address 2: Not reported
Mailing City,St,Zip: VALLEJO 94590
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

F22 **TELL RENTALS INC** **UST** **U003895705**
SW **711 ADMIRAL CALLAGHAN LN** **N/A**
1/8-1/4 **VALLEJO, CA 94591**
0.249 mi.
1314 ft. **Site 5 of 6 in cluster F**

Relative:
Higher

Actual:
112 ft.

SOLANO CO. UST:
Facility Id: 10827
Facility Status: Inactive
Decode for Facility Status: Closed
Facility Phone: 707-644-4438

Inventory Number: 1
Inventory Type: Underground Storage Tank (1)
Inventory Description: Not reported
Permit Expire/Last Service: Not reported
Last Service Date: Not reported

TELL RENTALS INC (Continued) **U003895705**

Inventory Number: 2
Inventory Type: Underground Storage Tank (1)
Inventory Description: Not reported
Permit Expire/Last Service: Not reported
Last Service Date: Not reported

F23 **TELL RENTALS** **LUST** **S105194868**
SW **711 ADMRIAL CALLAGHAN LN** **N/A**
1/8-1/4 **VALLEJO, CA 94591**
0.249 mi.
1314 ft. **Site 6 of 6 in cluster F**

Relative:
Higher

Actual:
112 ft.

LUST:
Region: STATE
Global Id: T0609591159
Latitude: 38.124261
Longitude: -122.228676
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/02/2001
Lead Agency: SOLANO COUNTY LOP
Case Worker: MCK
Local Agency: SOLANO COUNTY LOP
RB Case Number: 48-0363
LOC Case Number: 10827
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0609591159
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

Status History:
Global Id: T0609591159
Status: Completed - Case Closed
Status Date: 07/02/2001

Global Id: T0609591159
Status: Open - Case Begin Date
Status Date: 07/02/2001

Regulatory Activities:
Global Id: T0609591159
Action Type: Other
Date: 07/02/2001
Action: Leak Reported

TELL RENTALS (Continued) **S105194868**

LUST REG 2:

Region:	2
Facility Id:	48-0363
Facility Status:	Case Closed
Case Number:	10827
How Discovered:	Tank Closure
Leak Cause:	UNK
Leak Source:	UNK
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

G24 **VALLEJO TOYOTA** **LUST** **S103872559**
NNE **1001 ADMIRAL CALLAGHAN** **HIST CORTESE** **N/A**
1/4-1/2 **VALLEJO, CA 94591**
0.329 mi.
1737 ft. **Site 1 of 2 in cluster G**

Relative:
Higher

Actual:
117 ft.

LUST:

Region:	STATE
Global Id:	T0609500305
Latitude:	38.132535
Longitude:	-122.223965
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/22/1998
Lead Agency:	SOLANO COUNTY LOP
Case Worker:	MCK
Local Agency:	SOLANO COUNTY LOP
RB Case Number:	48-0335
LOC Case Number:	10638
File Location:	Not reported
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0609500305
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

Status History:

Global Id:	T0609500305
Status:	Completed - Case Closed
Status Date:	07/22/1998

VALLEJO TOYOTA (Continued) **S103872559**

Global Id: T0609500305
Status: Open - Case Begin Date
Status Date: 05/07/1998

Global Id: T0609500305
Status: Open - Site Assessment
Status Date: 07/21/1998

Regulatory Activities:
Global Id: T0609500305
Action Type: Other
Date: 05/07/1998
Action: Leak Discovery

Global Id: T0609500305
Action Type: RESPONSE
Date: 07/24/1998
Action: Other Report / Document

Global Id: T0609500305
Action Type: Other
Date: 05/07/1998
Action: Leak Reported

Global Id: T0609500305
Action Type: Other
Date: 05/07/1998
Action: Leak Stopped

SOLANO CO. LUST:
Region: SOLANO
Facility ID: 10638
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: 707-416-4787
Program: 29S
Inventory Number: 1
Inventory Type: LOP - Closed Site (128)
Inventory Description: Not reported
Last service/permit exp: ISSUANCE OF A CLOSURE DOCUMENT
Last service date: 07/22/1998

HIST CORTESE:
Region: CORTESE
Facility County Code: 48
Reg By: LTNKA
Reg Id: 48-0335

G25
NNE
1/4-1/2
0.329 mi.
1737 ft.

TAYLOR CLASSIC MOTORS
1001 ADMIRAL CALLAGHAN LN
VALLEJO, CA 94590

Site 2 of 2 in cluster G

LUST **S101595054**
SWEEPS UST **N/A**
CA FID UST

Relative:
Higher

Actual:
117 ft.

LUST REG 2:

Region:	2
Facility Id:	48-0335
Facility Status:	Case Closed
Case Number:	48-10638
How Discovered:	Tank Closure
Leak Cause:	UNK
Leak Source:	UNK
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	7/21/1998
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

SWEEPS UST:

Status:	Active
Comp Number:	12114
Number:	9
Board Of Equalization:	44-027650
Referral Date:	03-07-89
Action Date:	03-07-89
Created Date:	03-07-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	48-087-012114-000001
Tank Status:	A
Capacity:	4000
Active Date:	03-07-89
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	5

Status:	Active
Comp Number:	12114
Number:	9
Board Of Equalization:	44-027650
Referral Date:	03-07-89
Action Date:	03-07-89
Created Date:	03-07-89
Owner Tank Id:	Not reported
SWRCB Tank Id:	48-087-012114-000002
Tank Status:	A
Capacity:	3000
Active Date:	03-07-89
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not reported

Status: Active

TAYLOR CLASSIC MOTORS (Continued) **S101595054**

Comp Number: 12114
Number: 9
Board Of Equalization: 44-027650
Referral Date: 03-07-89
Action Date: 03-07-89
Created Date: 03-07-89
Owner Tank Id: Not reported
SWRCB Tank Id: 48-087-012114-000003
Tank Status: A
Capacity: 550
Active Date: 03-07-89
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 12114
Number: 9
Board Of Equalization: 44-027650
Referral Date: 03-07-89
Action Date: 03-07-89
Created Date: 03-07-89
Owner Tank Id: Not reported
SWRCB Tank Id: 48-087-012114-000004
Tank Status: A
Capacity: 550
Active Date: 03-07-89
Tank Use: OIL
STG: P
Content: NEW OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 12114
Number: 9
Board Of Equalization: 44-027650
Referral Date: 03-07-89
Action Date: 03-07-89
Created Date: 03-07-89
Owner Tank Id: Not reported
SWRCB Tank Id: 48-087-012114-000005
Tank Status: A
Capacity: 550
Active Date: 03-07-89
Tank Use: CHEMICAL
STG: W
Content: WASTE COOLAN
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 48000952
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported

TAYLOR CLASSIC MOTORS (Continued) **S101595054**

Mail To:	Not reported
Mailing Address:	1000 VAN NESS AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	VALLEJO 94590
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

H26 **TOSCO - FACILITY # 6209** **LUST S104493349**
SW **223 FAIRGROUNDS DR** **HIST CORTESE N/A**
1/4-1/2 **VALLEJO, CA 94591**
0.354 mi.
1869 ft. **Site 1 of 2 in cluster H**

Relative:
Higher

Actual:
163 ft.

LUST:

Region:	STATE
Global Id:	T0609500168
Latitude:	38.1237814129097
Longitude:	-122.231389582157
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/29/2014
Lead Agency:	SOLANO COUNTY LOP
Case Worker:	MCK
Local Agency:	SOLANO COUNTY LOP
RB Case Number:	48-0179
LOC Case Number:	10671
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	See site documents for historic information.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0609500168
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

Status History:

Global Id:	T0609500168
Status:	Completed - Case Closed
Status Date:	08/29/2014
Global Id:	T0609500168
Status:	Open - Case Begin Date
Status Date:	05/19/1988
Global Id:	T0609500168

TOSCO - FACILITY # 6209 (Continued) **S104493349**

Status: Open - Eligible for Closure
Status Date: 10/09/2013

Global Id: T0609500168
Status: Open - Remediation
Status Date: 07/06/2005

Global Id: T0609500168
Status: Open - Site Assessment
Status Date: 01/24/1989

Global Id: T0609500168
Status: Open - Site Assessment
Status Date: 07/19/1990

Global Id: T0609500168
Status: Open - Verification Monitoring
Status Date: 08/11/2007

Global Id: T0609500168
Status: Open - Verification Monitoring
Status Date: 05/01/2013

Regulatory Activities:
Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 11/10/2004
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 02/15/2005
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 11/21/2003
Action: File review

Global Id: T0609500168
Action Type: RESPONSE
Date: 03/22/2012
Action: Well Installation Workplan

Global Id: T0609500168
Action Type: RESPONSE
Date: 07/12/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0609500168
Action Type: RESPONSE
Date: 08/21/2013
Action: Request for Closure - Regulator Responded

Global Id: T0609500168
Action Type: REMEDIATION
Date: 06/22/1995

TOSCO - FACILITY # 6209 (Continued) **S104493349**

Action:	Free Product Removal
Global Id:	T0609500168
Action Type:	REMEDIATION
Date:	01/01/2004
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0609500168
Action Type:	REMEDIATION
Date:	04/07/2008
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0609500168
Action Type:	RESPONSE
Date:	07/10/2012
Action:	Monitoring Report - Semi-Annually
Global Id:	T0609500168
Action Type:	Other
Date:	05/19/1988
Action:	Leak Discovery
Global Id:	T0609500168
Action Type:	REMEDIATION
Date:	08/22/2007
Action:	In Situ Physical/Chemical Treatment (other than SVE)
Global Id:	T0609500168
Action Type:	ENFORCEMENT
Date:	05/12/2005
Action:	File review
Global Id:	T0609500168
Action Type:	ENFORCEMENT
Date:	12/03/2012
Action:	Meeting
Global Id:	T0609500168
Action Type:	ENFORCEMENT
Date:	01/22/2014
Action:	LOP Case Closure Summary to RB
Global Id:	T0609500168
Action Type:	Other
Date:	05/19/1988
Action:	Leak Reported
Global Id:	T0609500168
Action Type:	ENFORCEMENT
Date:	02/26/2003
Action:	File review
Global Id:	T0609500168
Action Type:	ENFORCEMENT
Date:	01/03/2012
Action:	Staff Letter

TOSCO - FACILITY # 6209 (Continued) **S104493349**

Global Id: T0609500168
Action Type: RESPONSE
Date: 11/05/2012
Action: Soil Vapor Intrusion Investigation Report

Global Id: T0609500168
Action Type: RESPONSE
Date: 12/04/2007
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 04/14/2006
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 01/13/2009
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 05/10/2004
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 04/27/2004
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 08/12/2003
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 11/29/2005
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 08/04/2005
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 04/04/2012
Action: Staff Letter

Global Id: T0609500168
Action Type: RESPONSE
Date: 02/01/2011
Action: Remedial Progress Report

Global Id: T0609500168
Action Type: RESPONSE

TOSCO - FACILITY # 6209 (Continued) **S104493349**

Date: 01/11/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 03/04/2014
Action: Staff Letter

Global Id: T0609500168
Action Type: Other
Date: 05/19/1988
Action: Leak Stopped

Global Id: T0609500168
Action Type: RESPONSE
Date: 04/07/2008
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 08/03/2004
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 11/19/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 06/14/2010
Action: Staff Letter

Global Id: T0609500168
Action Type: RESPONSE
Date: 05/07/2010
Action: Corrective Action Plan / Remedial Action Plan - Addendum

Global Id: T0609500168
Action Type: RESPONSE
Date: 03/08/2011
Action: Other Workplan

Global Id: T0609500168
Action Type: RESPONSE
Date: 06/05/2014
Action: Verbal Communication

Global Id: T0609500168
Action Type: RESPONSE
Date: 10/17/2008
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 11/14/2007
Action: Other Report / Document

TOSCO - FACILITY # 6209 (Continued) **S104493349**

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 02/05/2004
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 06/13/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 08/19/2002
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 09/13/2013
Action: Technical Correspondence / Assistance / Other

Global Id: T0609500168
Action Type: RESPONSE
Date: 07/05/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0609500168
Action Type: RESPONSE
Date: 05/14/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0609500168
Action Type: RESPONSE
Date: 10/13/2009
Action: Correspondence

Global Id: T0609500168
Action Type: RESPONSE
Date: 03/04/2009
Action: CAP/RAP - Other Report

Global Id: T0609500168
Action Type: RESPONSE
Date: 02/10/2006
Action: Well Installation Report

Global Id: T0609500168
Action Type: RESPONSE
Date: 01/08/2007
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 10/02/2007
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: ENFORCEMENT

TOSCO - FACILITY # 6209 (Continued) **S104493349**

Date: 03/23/2007
Action: Staff Letter

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 02/22/2011
Action: Staff Letter

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 12/09/2009
Action: Site Visit / Inspection / Sampling

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 07/19/2005
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 02/07/2005
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 03/23/2011
Action: Staff Letter

Global Id: T0609500168
Action Type: RESPONSE
Date: 07/08/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 08/29/2014
Action: Closure/No Further Action Letter

Global Id: T0609500168
Action Type: RESPONSE
Date: 06/04/2007
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 10/03/2008
Action: Pilot Study/ Treatability Report

Global Id: T0609500168
Action Type: RESPONSE
Date: 04/12/2009
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 08/11/2009
Action: Staff Letter

TOSCO - FACILITY # 6209 (Continued) **S104493349**

Global Id: T0609500168
Action Type: RESPONSE
Date: 01/11/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0609500168
Action Type: RESPONSE
Date: 11/04/2011
Action: Preliminary Site Assessment Report

Global Id: T0609500168
Action Type: RESPONSE
Date: 10/09/2006
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 07/19/2006
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 07/10/2009
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 07/29/2009
Action: Corrective Action Plan / Remedial Action Plan - Addendum

Global Id: T0609500168
Action Type: RESPONSE
Date: 02/03/2006
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 11/25/2009
Action: CAP/RAP - Other Report

Global Id: T0609500168
Action Type: RESPONSE
Date: 03/14/2007
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: RESPONSE
Date: 09/16/2009
Action: Monitoring Report - Quarterly

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 03/26/2007
Action: Verbal Communication

Global Id: T0609500168
Action Type: ENFORCEMENT

TOSCO - FACILITY # 6209 (Continued) **S104493349**

Date: 01/11/2007
Action: Site Visit / Inspection / Sampling

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 06/30/2009
Action: Staff Letter

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 03/23/2009
Action: Staff Letter

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 12/20/2002
Action: File review

Global Id: T0609500168
Action Type: ENFORCEMENT
Date: 05/21/2003
Action: File review

SOLANO CO. LUST:
Region: SOLANO
Facility ID: 10671
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: 707-552-1500
Program: 29S
Inventory Number: 1
Inventory Type: LOP - Closed Site (128)
Inventory Description: Ref Date = 8/29/2014
Last service/permit exp: ISSUANCE OF A CLOSURE DOCUMENT
Last service date: 08/28/2014

HIST CORTESE:
Region: CORTESE
Facility County Code: 48
Reg By: LTNKA
Reg Id: 48-0179

H27 **CHEVRON** **LUST** **S104493348**
SW **200 FAIRGROUNDS DR** **HIST CORTESE** **N/A**
1/4-1/2 **VALLEJO, CA 94589**
0.355 mi.
1873 ft. **Site 2 of 2 in cluster H**

Relative:
Higher

Actual:
152 ft.

LUST:
Region: STATE
Global Id: T0609500030
Latitude: 38.123618
Longitude: -122.230815
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/23/1997

CHEVRON (Continued) **S104493348**

Lead Agency:	SOLANO COUNTY LOP
Case Worker:	MCK
Local Agency:	SOLANO COUNTY LOP
RB Case Number:	48-0032
LOC Case Number:	10223
File Location:	Not reported
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0609500030
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

Status History:

Global Id:	T0609500030
Status:	Completed - Case Closed
Status Date:	09/23/1997
Global Id:	T0609500030
Status:	Open - Case Begin Date
Status Date:	02/27/1986
Global Id:	T0609500030
Status:	Open - Site Assessment
Status Date:	02/18/1992

Regulatory Activities:

Global Id:	T0609500030
Action Type:	Other
Date:	11/09/1987
Action:	Leak Discovery
Global Id:	T0609500030
Action Type:	Other
Date:	02/27/1986
Action:	Leak Reported
Global Id:	T0609500030
Action Type:	Other
Date:	11/09/1987
Action:	Leak Stopped

LUST REG 2:

Region:	2
Facility Id:	48-0032
Facility Status:	Case Closed

CHEVRON (Continued) **S104493348**

Case Number: 10223
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 2/18/1992
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SOLANO CO. LUST:
Region: SOLANO
Facility ID: 10223
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: Not reported
Program: 29S
Inventory Number: 1
Inventory Type: LOP - Closed Site (128)
Inventory Description: Not reported
Last service/permit exp: REVIEW REPORTS / POST REM MONIT
Last service date: 08/29/2006

HIST CORTESE:
Region: CORTESE
Facility County Code: 48
Reg By: LTNKA
Reg Id: 48-0032

28
NNW
1/4-1/2
0.375 mi.
1978 ft.

SOLANO COUNTY FAIRGROUNDS **LUST** **U003641241**
900 FAIRGROUNDS **SWEEPS UST** **N/A**
VALLEJO, CA 94589 **HIST CORTESE**

Relative:
Lower

Actual:
94 ft.

LUST:
Region: STATE
Global Id: T0609500212
Latitude: 38.1317556
Longitude: -122.2293621
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 04/24/1998
Lead Agency: SOLANO COUNTY LOP
Case Worker: MCK
Local Agency: SOLANO COUNTY LOP
RB Case Number: 48-0227
LOC Case Number: 10838
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

SOLANO COUNTY FAIRGROUNDS (Continued) **U003641241**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0609500212
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

Status History:

Global Id:	T0609500212
Status:	Completed - Case Closed
Status Date:	04/24/1998
Global Id:	T0609500212
Status:	Open - Case Begin Date
Status Date:	12/16/1992
Global Id:	T0609500212
Status:	Open - Site Assessment
Status Date:	03/01/1993

Regulatory Activities:

Global Id:	T0609500212
Action Type:	Other
Date:	12/16/1992
Action:	Leak Discovery
Global Id:	T0609500212
Action Type:	Other
Date:	03/01/1993
Action:	Leak Reported
Global Id:	T0609500212
Action Type:	Other
Date:	12/16/1992
Action:	Leak Stopped

LUST REG 2:

Region:	2
Facility Id:	48-0227
Facility Status:	Case Closed
Case Number:	10838
How Discovered:	Tank Closure
Leak Cause:	UNK
Leak Source:	UNK
Date Leak Confirmed:	3/1/1993
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	Not reported

SOLANO COUNTY FAIRGROUNDS (Continued) **U003641241**

Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SOLANO CO. LUST:
Region: SOLANO
Facility ID: 101632
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: Not reported
Program: 29S
Inventory Number: 1
Inventory Type: General Site Mitigation (100)
Inventory Description: Not reported
Last service/permit exp: Not reported
Last service date: Not reported

SWEEPS UST:
Status: Active
Comp Number: 60171
Number: 5
Board Of Equalization: 44-027714
Referral Date: 12-11-89
Action Date: 12-11-89
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 48-087-060171-000001
Tank Status: A
Capacity: 1000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: 2

Status: Active
Comp Number: 60171
Number: 5
Board Of Equalization: 44-027714
Referral Date: 12-11-89
Action Date: 12-11-89
Created Date: 02-29-88
Owner Tank Id: 2
SWRCB Tank Id: 48-087-060171-000002
Tank Status: A
Capacity: Not reported
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 48
Reg By: LTNKA

SOLANO COUNTY FAIRGROUNDS (Continued) **U003641241**

Reg Id: 48-0227

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: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2016
Next Scheduled EDR Contact: 01/16/2017
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: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2016
Next Scheduled EDR Contact: 01/16/2017
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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2016
Next Scheduled EDR Contact: 01/16/2017
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: 09/14/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
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: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/20/2016
Next Scheduled EDR Contact: 01/30/2017
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: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/20/2016
Next Scheduled EDR Contact: 01/30/2017
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: 06/27/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
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: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
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: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
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: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/09/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
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: 05/09/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
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: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 51

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

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: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
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: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
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: 08/15/2016
Date Data Arrived at EDR: 08/16/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 50

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/16/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

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 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 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

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

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
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: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

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: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
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: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
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: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

SLIC: Statewide SLIC Cases

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: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 12/26/2016
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: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/11/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
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: 10/24/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

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: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
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: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

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: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

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: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

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: 01/26/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 119

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

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

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
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: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 02/29/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/22/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/21/2016
Next Scheduled EDR Contact: 01/02/2017
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: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 08/26/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 49
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

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: 08/31/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 10/10/2016
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: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 02/13/2017
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: 12/31/2015
Date Data Arrived at EDR: 05/10/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

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: 08/30/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
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: 09/22/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 10/20/2016
Number of Days to Update: 23

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/12/2016
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

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
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: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

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: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
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: 06/27/2016
Date Data Arrived at EDR: 06/28/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 87

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/27/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/03/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/26/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 11/01/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

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: 09/09/2016
Next Scheduled EDR Contact: 12/19/2016
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: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
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: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
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: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 10/20/2016
Next Scheduled EDR Contact: 11/28/2016
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: 07/12/2016
Date Data Arrived at EDR: 08/17/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 65

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 11/28/2016
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: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
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: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 09/06/2016
Next Scheduled EDR Contact: 11/21/2016
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: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/23/2016
Next Scheduled EDR Contact: 01/02/2017
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: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/26/2016
Next Scheduled EDR Contact: 12/05/2016
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: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
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: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/19/2016
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: 05/01/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 99

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/25/2016
Next Scheduled EDR Contact: 11/07/2016
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: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 08/12/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
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: 07/27/2016
Date Data Arrived at EDR: 08/05/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 77
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 10/11/2016
Next Scheduled EDR Contact: 01/23/2017
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: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
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: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
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: 09/05/2016
Next Scheduled EDR Contact: 11/21/2016
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: 09/09/2016
Next Scheduled EDR Contact: 12/19/2016
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: 09/06/2016
Next Scheduled EDR Contact: 12/19/2016
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: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
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: 10/03/2016
Date Data Arrived at EDR: 10/05/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 16
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/05/2016
Next Scheduled EDR Contact: 01/16/2017
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: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/02/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
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: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/26/2016
Next Scheduled EDR Contact: 12/05/2016
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: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/21/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/26/2016
Next Scheduled EDR Contact: 11/21/2016
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: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/07/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 148

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/20/2016
Next Scheduled EDR Contact: 01/16/2017
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: 06/30/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 88

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 88

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
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: 08/05/2016
Date Data Arrived at EDR: 09/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/01/2016
Next Scheduled EDR Contact: 12/12/2016
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: 09/02/2016
Next Scheduled EDR Contact: 12/12/2016
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: 09/02/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

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: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/27/2016
Date Data Arrived at EDR: 06/28/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 51

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/27/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

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: 06/02/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 37

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 09/23/2016
Date Made Active in Reports: 10/24/2016
Number of Days to Update: 31

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/23/2016
Next Scheduled EDR Contact: 01/02/2017
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: 08/22/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 42

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 11/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/10/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 51

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
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: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/12/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Annually

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: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/23/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/11/2016
Date Data Arrived at EDR: 07/13/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/12/2016
Next Scheduled EDR Contact: 01/23/2017
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: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Varies

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: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/18/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 36

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/16/2016
Next Scheduled EDR Contact: 11/28/2016
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: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
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: 09/10/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
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: 07/06/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
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 board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/23/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 59

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/23/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

ICE: ICE
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 43

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/23/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

ABANDONED MINES: Abandoned Mines
An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/18/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/20/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Quarterly

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 Historic Gas 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 Historic Dry 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:

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: 07/07/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 37

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/07/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 27

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 18

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 07/20/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 60

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 09/06/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/10/2016
Number of Days to Update: 47

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 04/08/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 50

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/24/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 75

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

FRESNO COUNTY:

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: 07/13/2016
Date Data Arrived at EDR: 07/19/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 21

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/08/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 41

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 10/13/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 07/25/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 08/04/2016
Date Data Arrived at EDR: 08/08/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 71

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

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: 05/25/2016
Date Data Arrived at EDR: 05/27/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 26

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 09/08/2016
Date Data Arrived at EDR: 09/09/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 35

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

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: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/05/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 37

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/15/2016
Date Data Arrived at EDR: 07/19/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 78

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/18/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/17/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/23/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 28
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/18/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 32
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 04/07/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 36
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 32

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 08/29/2016
Date Data Arrived at EDR: 08/31/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 44

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/22/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 07/25/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 51

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 53

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/09/2016
Date Made Active in Reports: 10/11/2016
Number of Days to Update: 63

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/09/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 07/18/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 81

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 07/13/2016
Date Data Arrived at EDR: 07/18/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 21

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 07/06/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 07/06/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

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: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/19/2016
Number of Days to Update: 42

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

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: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

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: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

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: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/21/2016
Date Data Arrived at EDR: 09/22/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 26
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/18/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

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

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/08/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 60

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/15/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 29

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/22/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 07/10/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 28

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2016
Date Data Arrived at EDR: 07/05/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 44

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 16

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 08/12/2016
Date Data Arrived at EDR: 08/16/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 49

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

VENTURA COUNTY:

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: 06/28/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

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: 09/29/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Quarterly

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: 06/28/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 67
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/29/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/11/2016
Number of Days to Update: 27
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/11/2016
Number of Days to Update: 48
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/05/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 61
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/12/2016
Next Scheduled EDR Contact: 01/23/2017
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: 08/01/2016
Date Data Arrived at EDR: 08/03/2016
Date Made Active in Reports: 09/09/2016
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/02/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 09/20/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COOKE PROPERTY
TURNER PARKWAY
VALLEJO, CA 94591

TARGET PROPERTY COORDINATES

Latitude (North):	38.128856 - 38° 7' 43.88''
Longitude (West):	122.223593 - 122° 13' 24.93''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	568049.2
UTM Y (Meters):	4220190.5
Elevation:	99 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5602186 CORDELIA, CA
Version Date:	2012
Southeast Map:	5602094 BENICIA, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

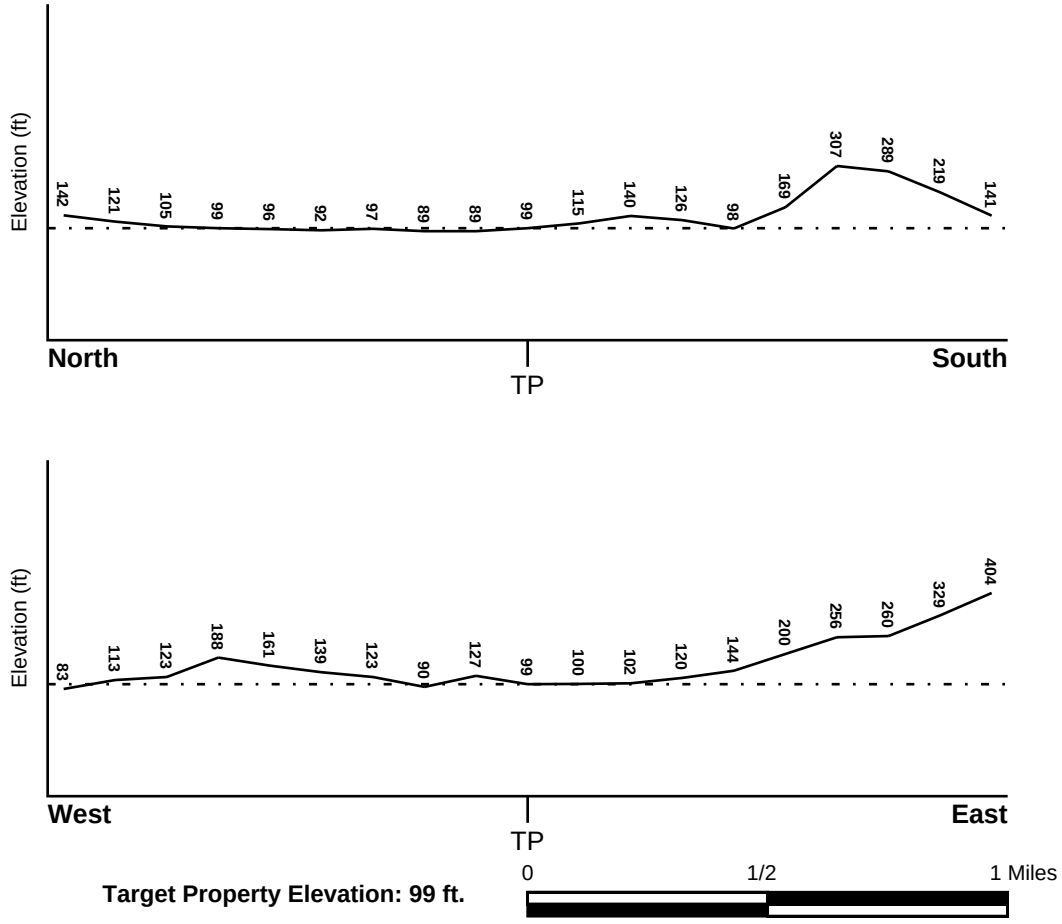
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 99 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06055C0650E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06095C0630F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CORDELIA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/8 - 1/4 Mile NW	WSW
2	1/4 - 1/2 Mile SW	NW
A3	1/2 - 1 Mile WSW	SW
A4	1/2 - 1 Mile WSW	Varies
5	1/2 - 1 Mile WSW	Varies

For additional site information, refer to Physical Setting Source Map Findings.

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

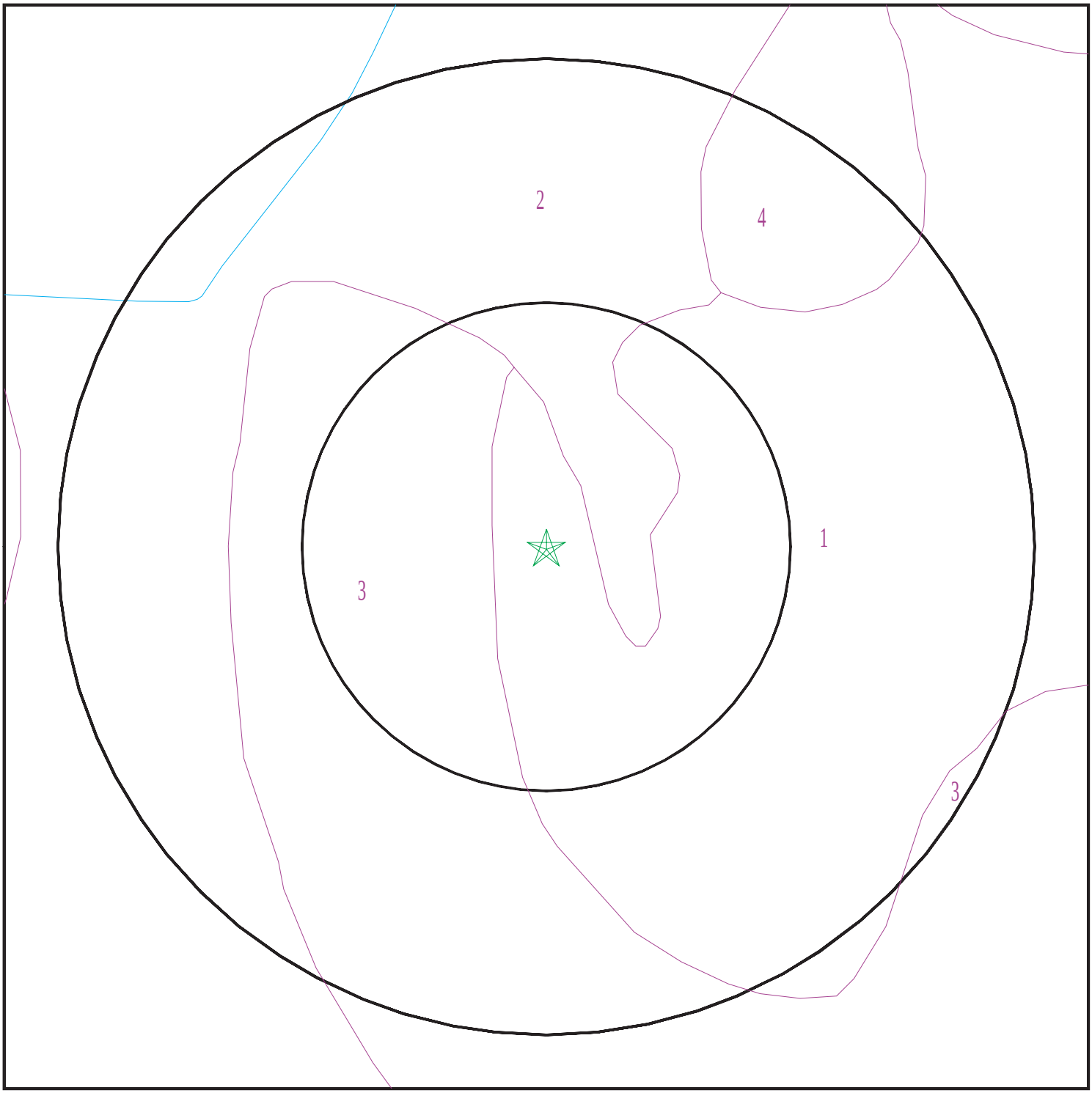
Era:	Mesozoic
System:	Cretaceous
Series:	Upper Cretaceous
Code:	uK *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 04772246.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Cooke Property	CLIENT:	Engeo Inc.
ADDRESS:	Turner Parkway Vallejo CA 94591	CONTACT:	Travis Chatters
		INQUIRY #:	04772246.2r
LAT/LONG:	38.128856 / 122.223593	DATE:	November 03, 2016 7:37 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Dibble

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	12 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 5.6
2	12 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 7.3 Min: 6.1
3	29 inches	33 inches	weathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 2

Soil Component Name: Clear Lake

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 138 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	44 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1
2	44 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: Dibble

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	12 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 6.5 Min: 5.6
2	12 inches	29 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 7.3 Min: 6.1
3	29 inches	33 inches	weathered bedrock	Not reported	Not reported	Max: 4 Min: 1.4	Max: Min:

Soil Map ID: 4

Soil Component Name: Borrow pits

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 04772246.2r

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Cooke Property	CLIENT:	Engeo Inc.
ADDRESS:	Turner Parkway Vallejo CA 94591	CONTACT:	Travis Chatters
		INQUIRY #:	04772246.2r
LAT/LONG:	38.128856 / 122.223593	DATE:	November 03, 2016 7:37 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 **NW** **1/8 - 1/4 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported WSW 6.5 14 Not Reported 07/20/1998	**AQUIFLOW**	**52564**
2 **SW** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported NW 6 20.83 Not Reported 01/27/1995	**AQUIFLOW**	**52539**
A3 **WSW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported SW 2.00 4.55 Not Reported 05/04/1990	**AQUIFLOW**	**52587**
A4 **WSW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported Varies 0.69 4.87 Not Reported 07/13/1999	**AQUIFLOW**	**52588**
5 **WSW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported Varies 3.5 12 Not Reported 06/26/1998	**AQUIFLOW**	**52637**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94591	13	2

Federal EPA Radon Zone for SOLANO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 94591

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.500 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX B

ENVIRONMENTAL DATA RESOURCES, INC.

Sanborn Map Report

APPENDIX B

Cooke Property
Turner Parkway
Vallejo, CA 94591

Inquiry Number: 4770857.3
November 02, 2016

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/02/16

Site Name:

Cooke Property
Turner Parkway
Vallejo, CA 94591
EDR Inquiry # 4770857.3

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Travis Chatters

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 373B-4281-8DAA

PO # 13495.000.000

Project Cooke Property

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 373B-4281-8DAA

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Engeo Inc. (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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APPENDIX C

ENVIRONMENTAL DATA RESOURCES, INC.

Historical Topographic Map Report

APPENDIX C

Cooke Property
Turner Parkway
Vallejo, CA 94591

Inquiry Number: 4770857.4
November 02, 2016

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

11/02/16

Site Name:

Cooke Property
Turner Parkway
Vallejo, CA 94591
EDR Inquiry # 4770857.4

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Travis Chatters

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 13495.000.000
Project: Cooke Property

Coordinates:

Latitude:	38.128915 38° 7' 44" North
Longitude:	-122.223089 -122° 13' 23" West
UTM Zone:	Zone 10 North
UTM X Meters:	568091.63
UTM Y Meters:	4220403.61
Elevation:	93.28' above sea level

Maps Provided:

2012
1980
1968
1950, 1951
1942
1940
1902
1901
1898
1896

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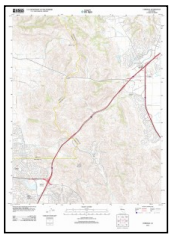
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Cuttings Wharf
2012
7.5-minute, 24000

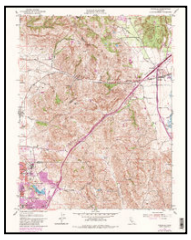
Mare Island
2012
7.5-minute, 24000



Cordelia
2012
7.5-minute, 24000

Benicia
2012
7.5-minute, 24000

1980 Source Sheets



Cordelia
1980
7.5-minute, 24000
Photo Revised 1980
Aerial Photo Revised 1978

Benicia
1980
7.5-minute, 24000
Photo Revised 1980
Aerial Photo Revised 1979

1968 Source Sheets

Cordelia
1968
7.5-minute, 24000
Photo Revised 1968
Aerial Photo Revised 1968

Benicia
1968
7.5-minute, 24000
Photo Revised 1968
Aerial Photo Revised 1968

1950, 1951 Source Sheets

Benicia
1950
7.5-minute, 24000
Aerial Photo Revised 1948

Cordelia
1951
7.5-minute, 24000
Aerial Photo Revised 1948

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1942 Source Sheets

Carquinez
1942
15-minute, 62500
Aerial Photo Revised 1937

1940 Source Sheets

Carquinez Strait
1940
15-minute, 62500

1902 Source Sheets

Napa
1902
30-minute, 125000

1901 Source Sheets

Carquinez
1901
15-minute, 62500

Karquines
1901
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1898 Source Sheets

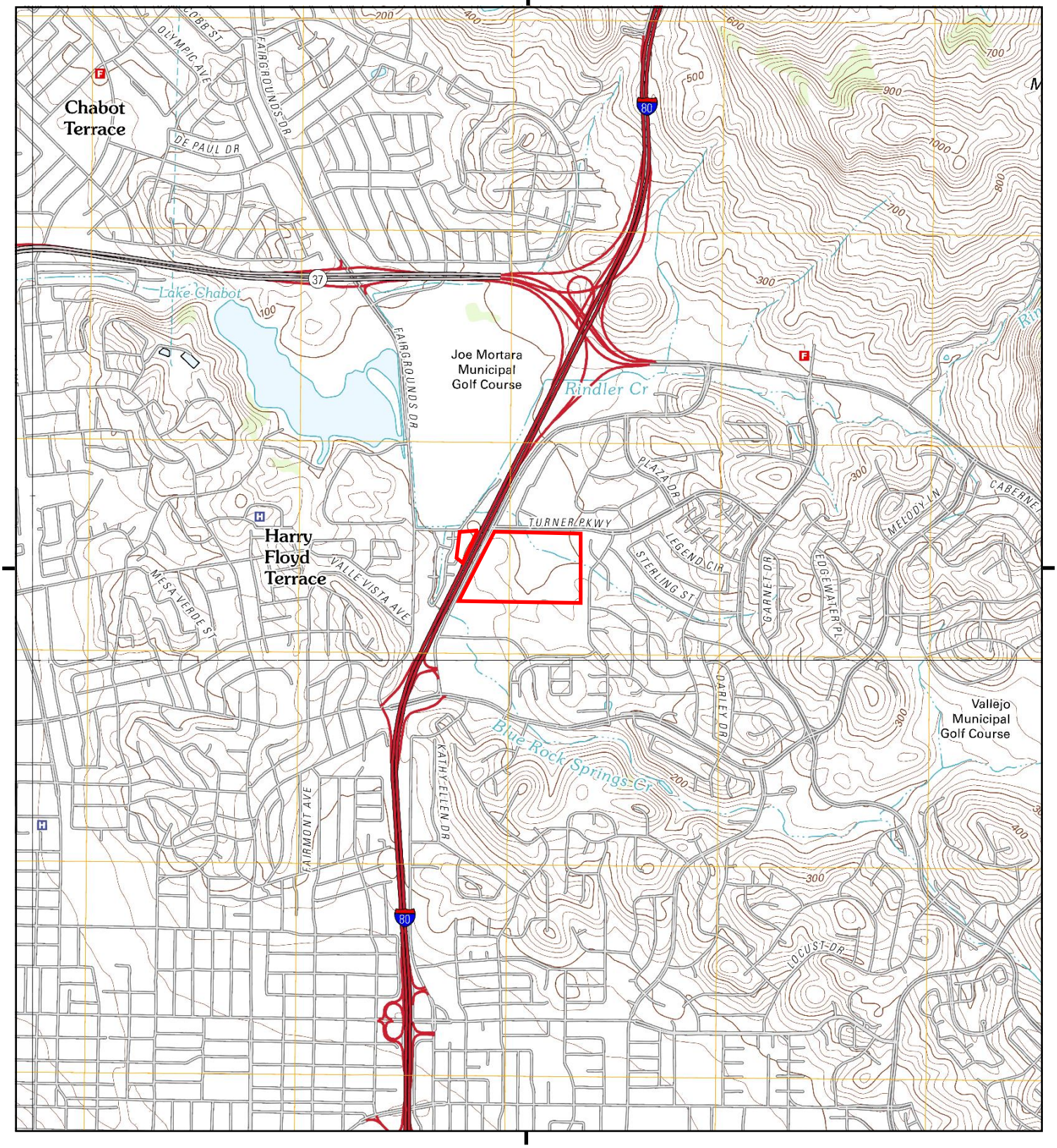
Karquines
1898
15-minute, 62500

1896 Source Sheets

Carquinez Strait
1896
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

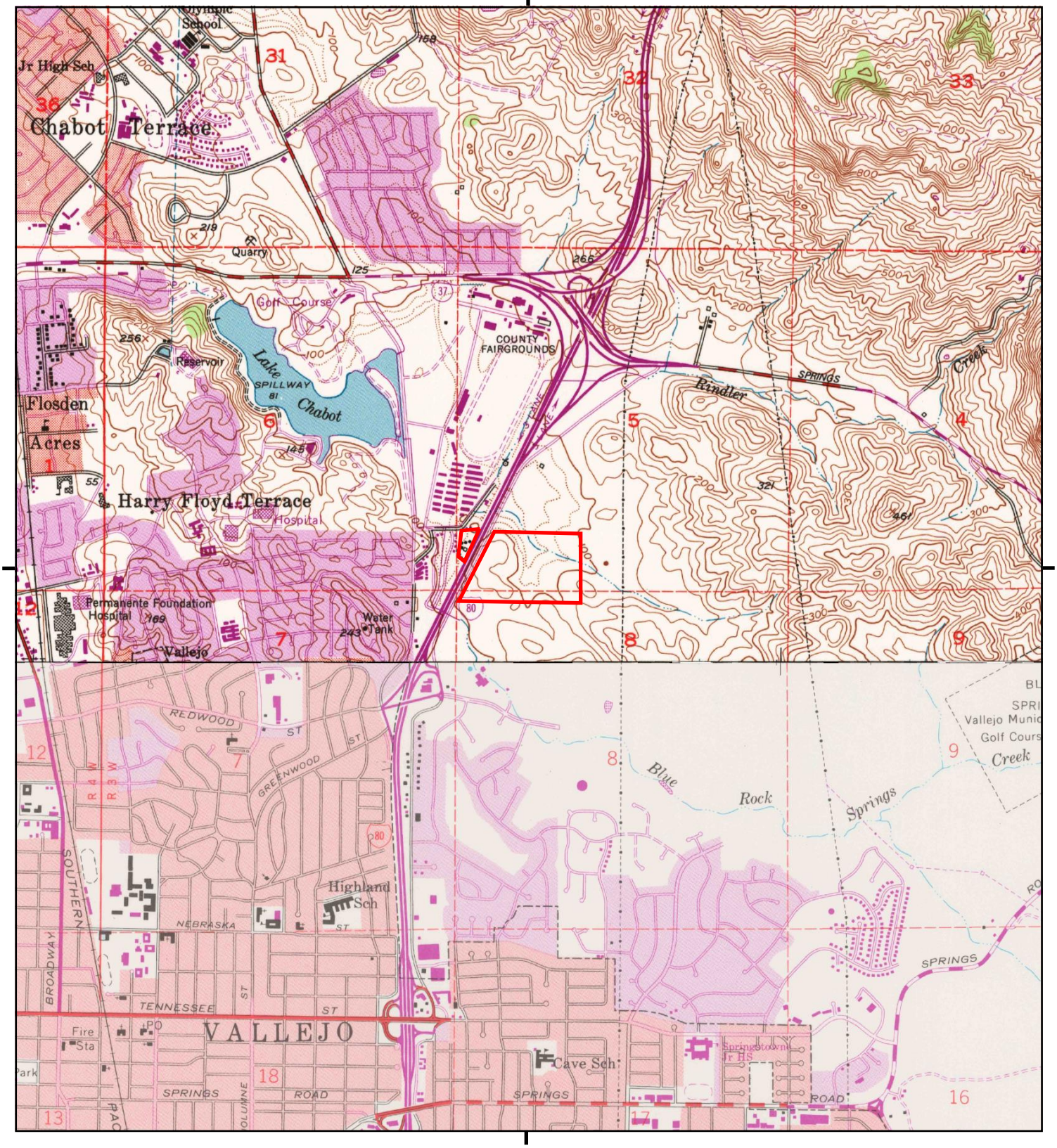
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Cordelia, 2012, 7.5-minute
SE, Benicia, 2012, 7.5-minute
SW, Mare Island, 2012, 7.5-minute
NW, Cuttings Wharf, 2012, 7.5-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

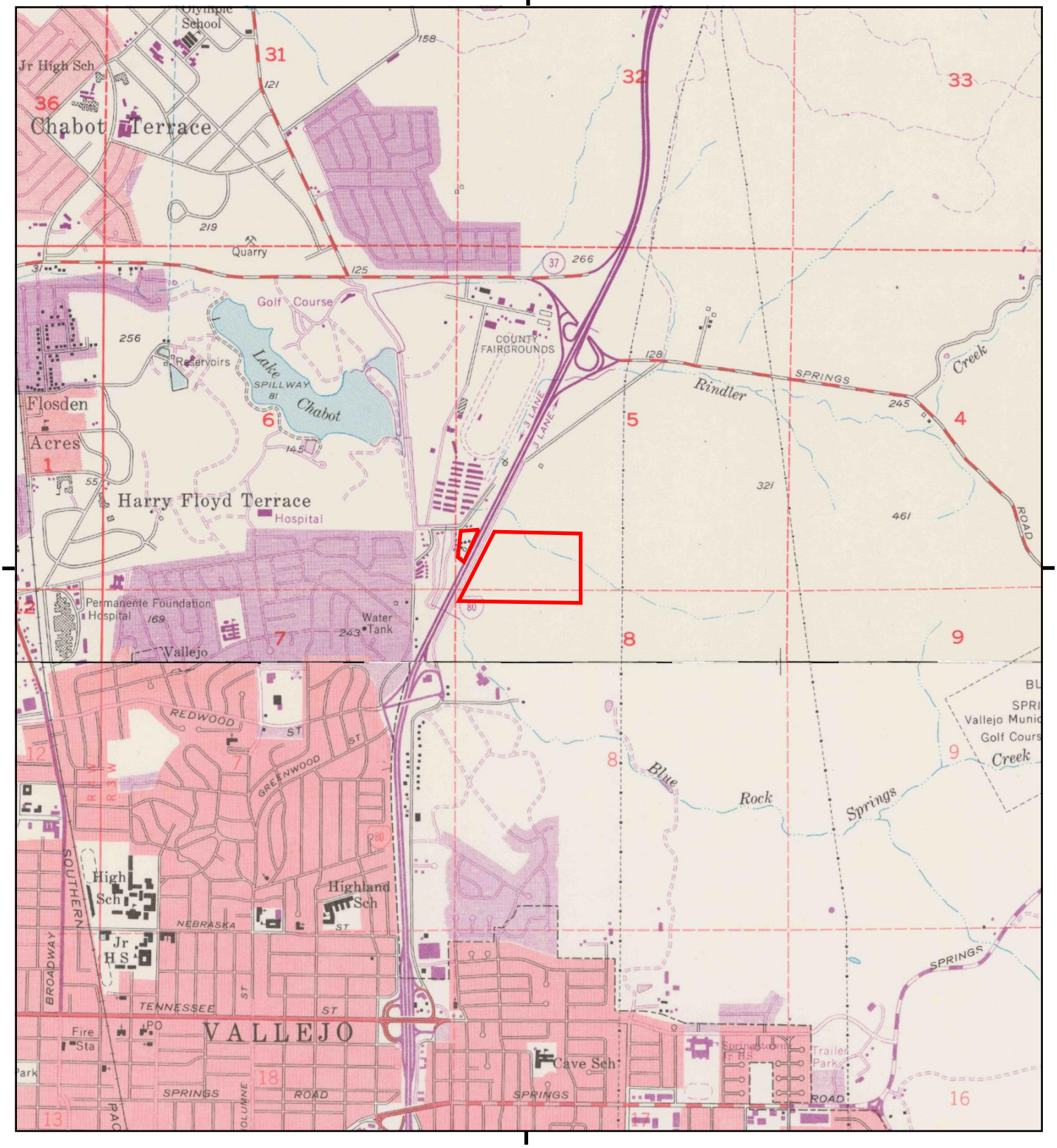
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Cordelia, 1980, 7.5-minute
SE, Benicia, 1980, 7.5-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

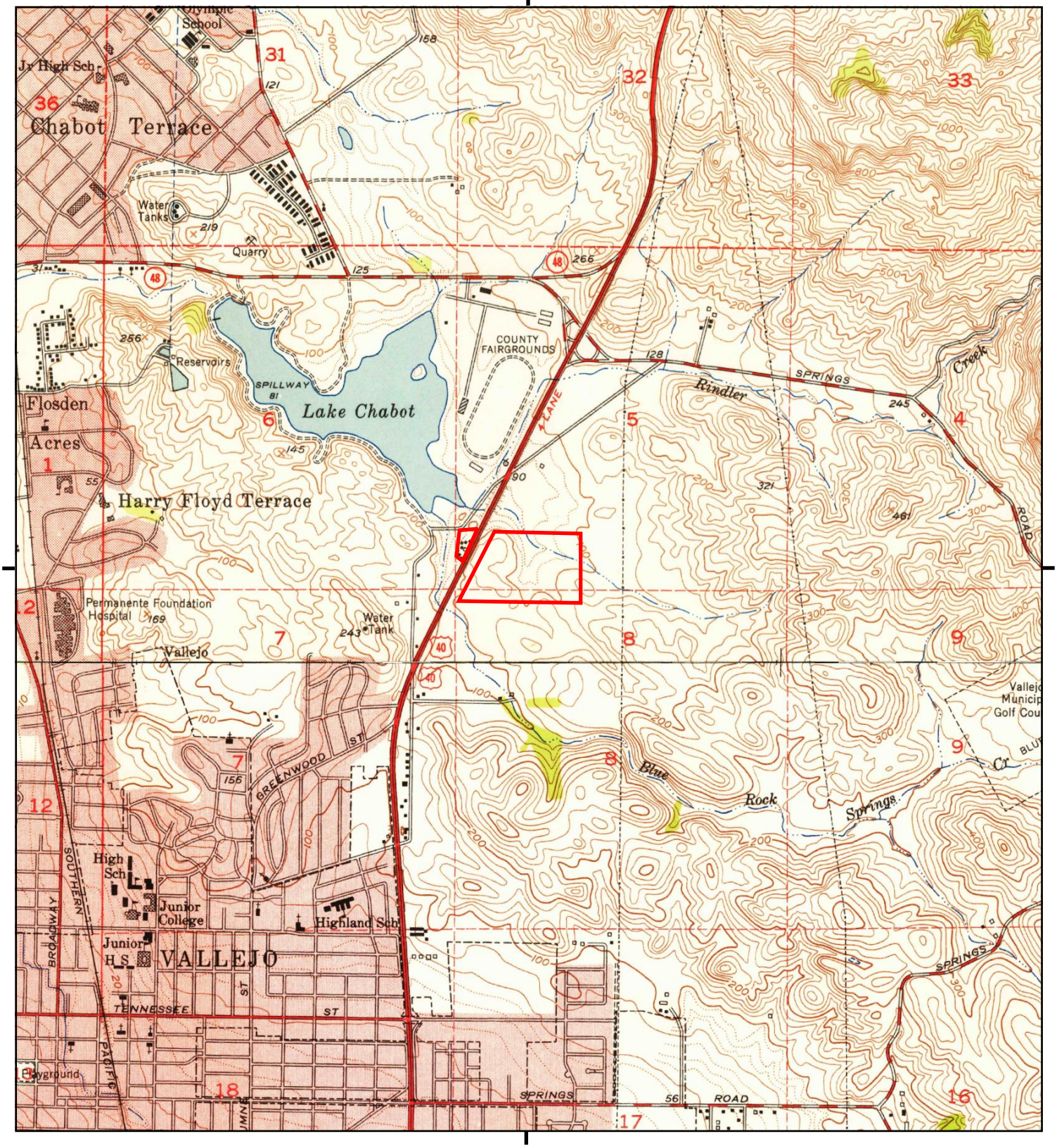
TP, Cordelia, 1968, 7.5-minute
SE, Benicia, 1968, 7.5-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N

Historical Topo Map

1950, 1951



This report includes information from the following map sheet(s).

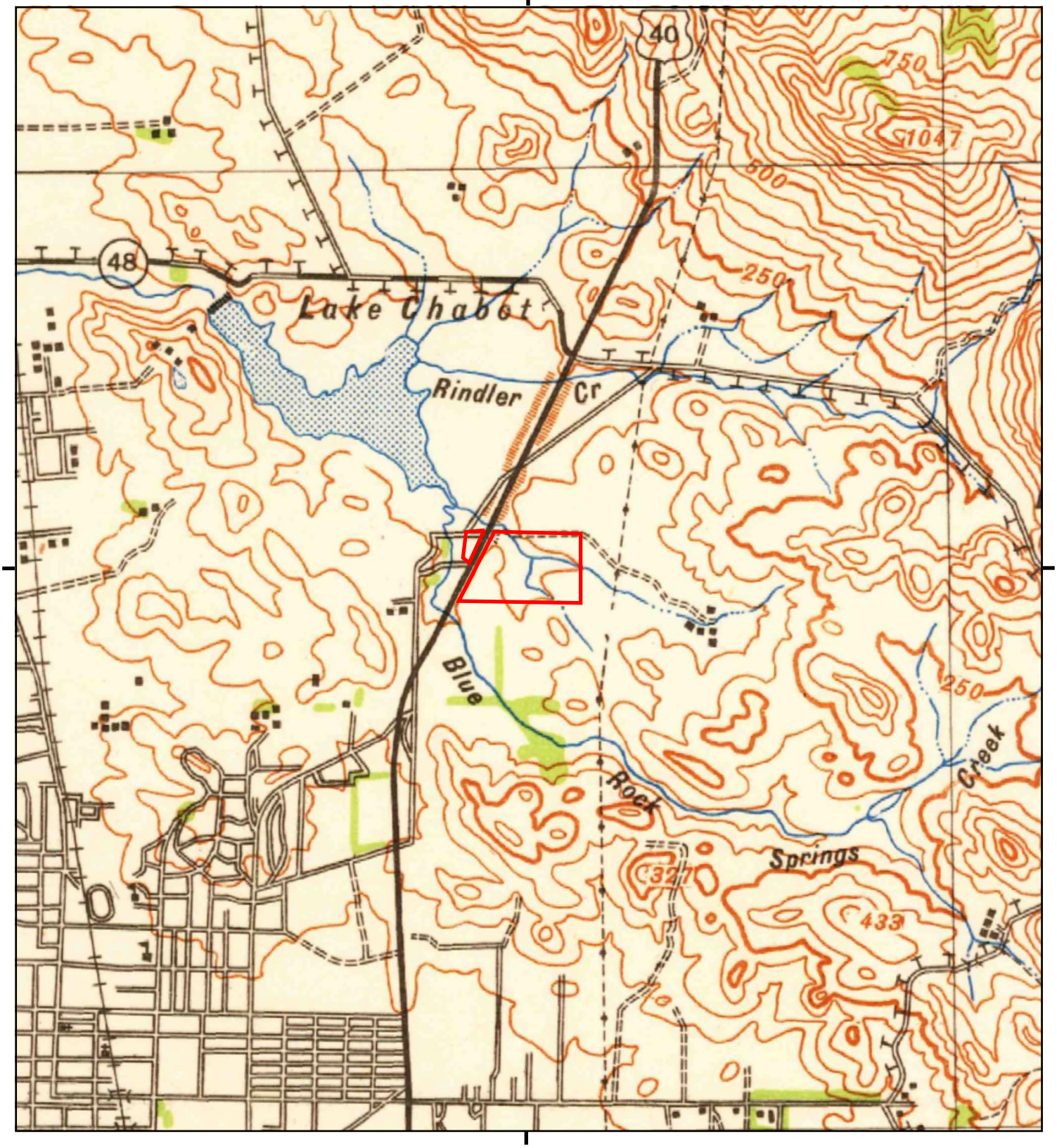
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Cordelia, 1951, 7.5-minute
SE, Benicia, 1950, 7.5-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

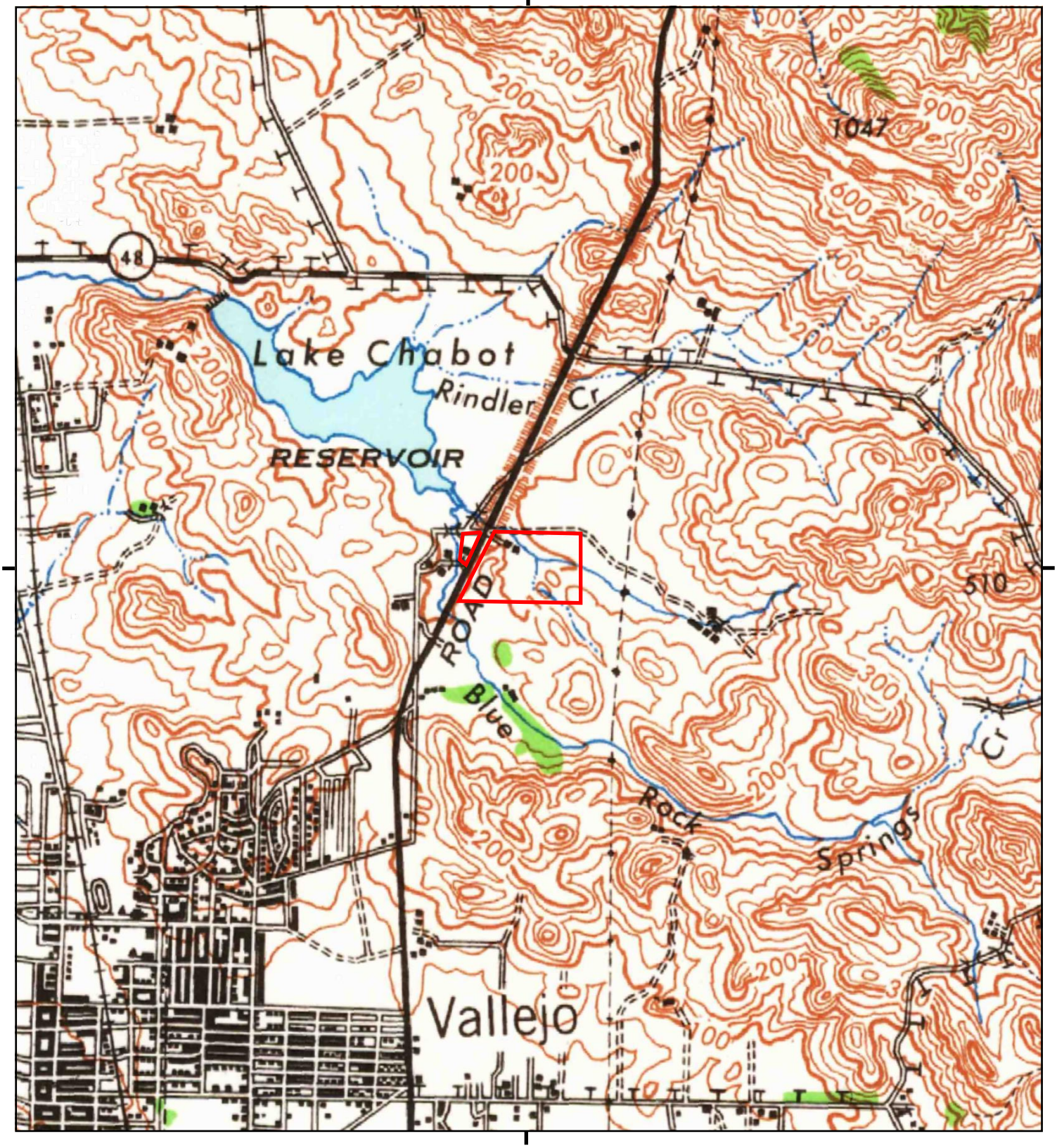
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Carquinez, 1942, 15-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

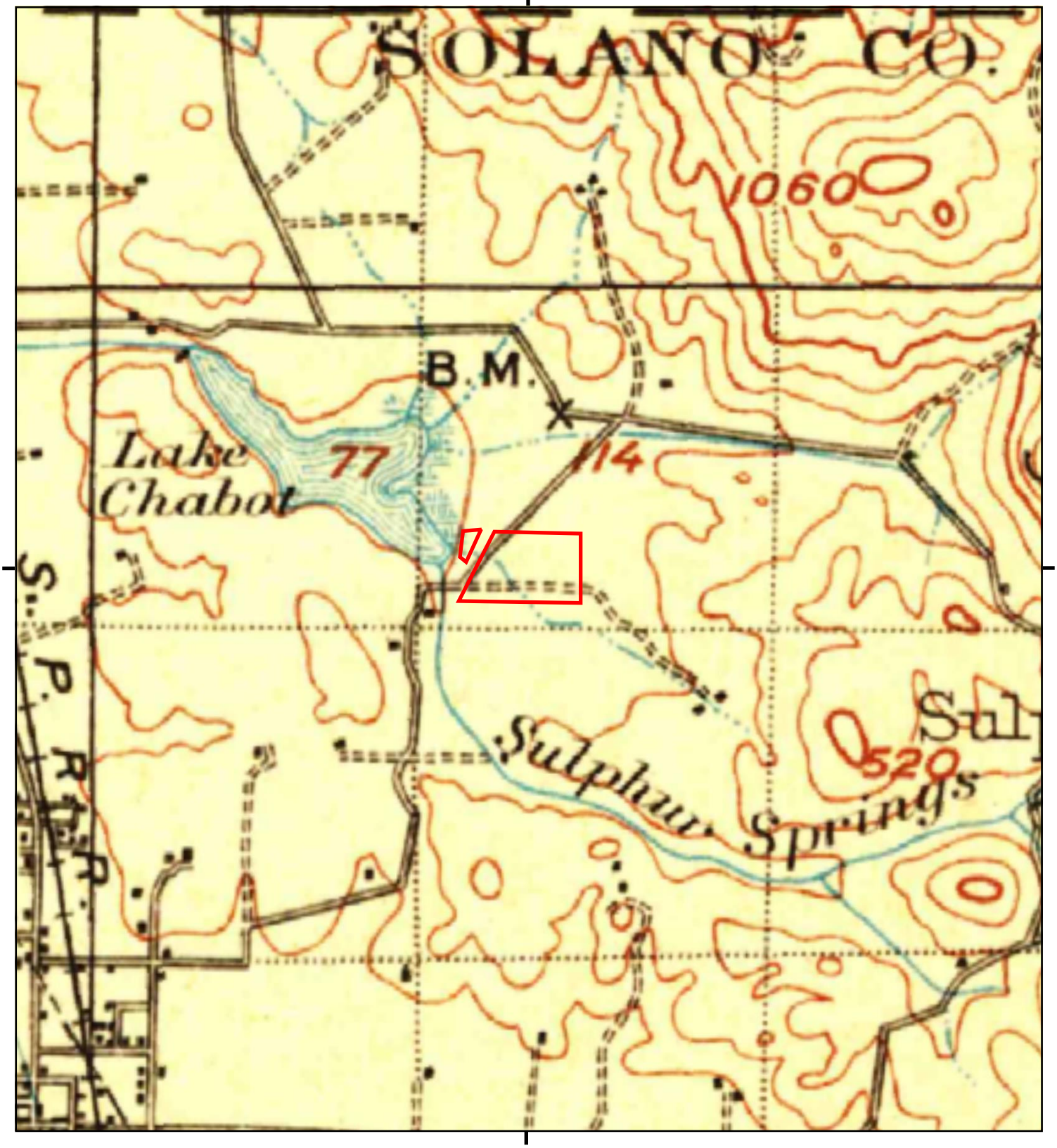
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Carquinez Strait, 1940, 15-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

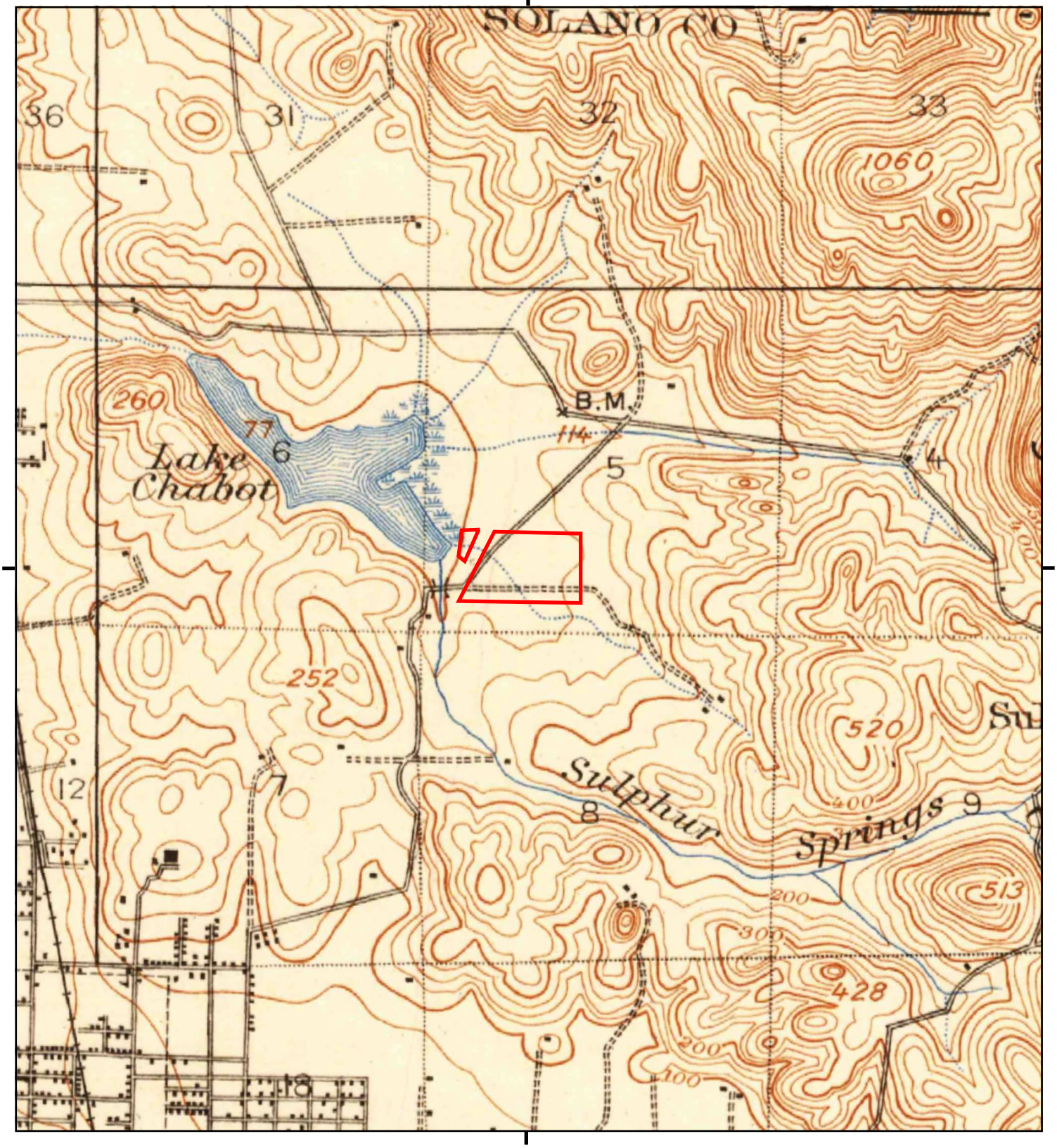
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Napa, 1902, 30-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

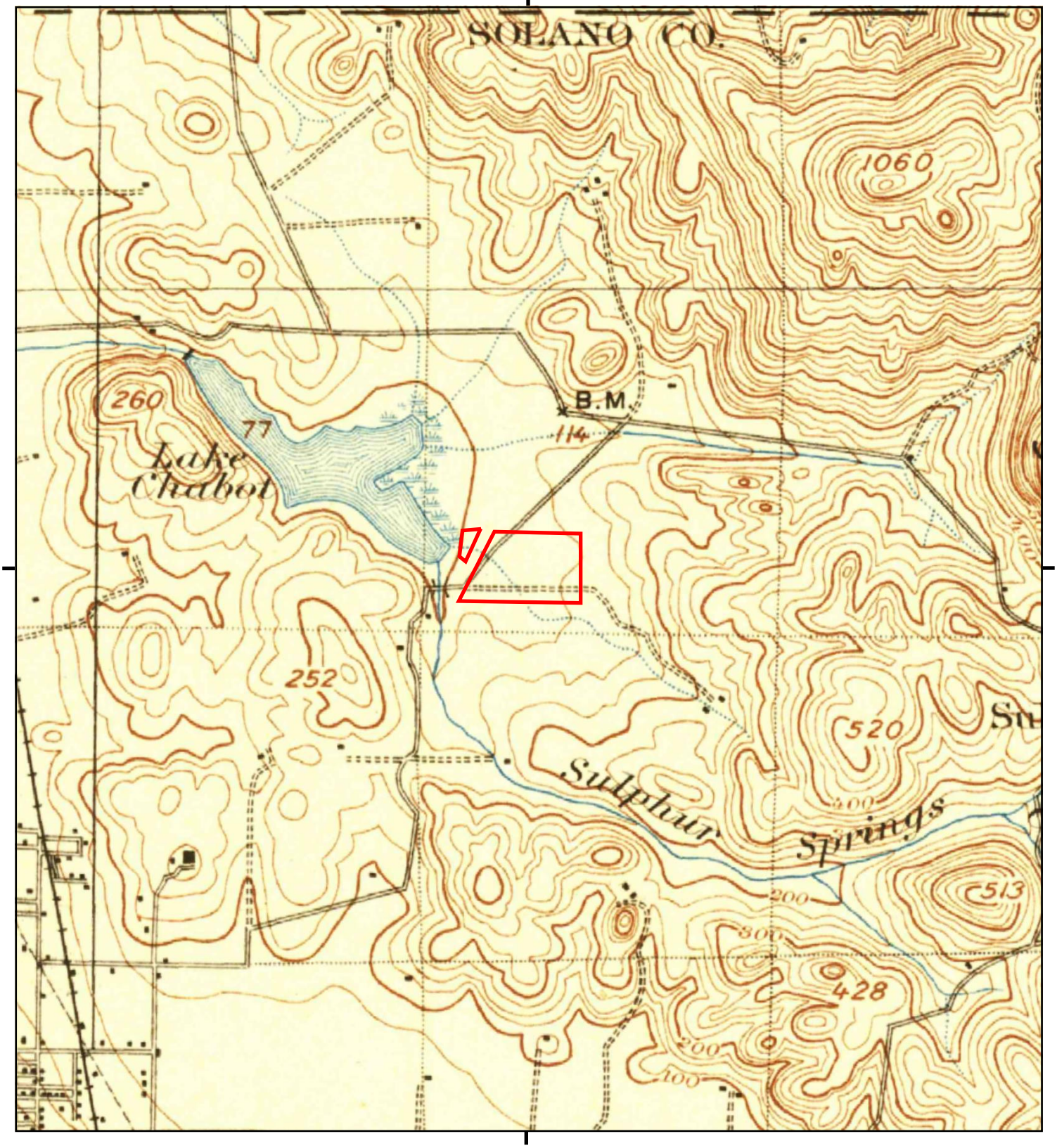
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Carquinez, 1901, 15-minute
TP, Karquines, 1901, 15-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

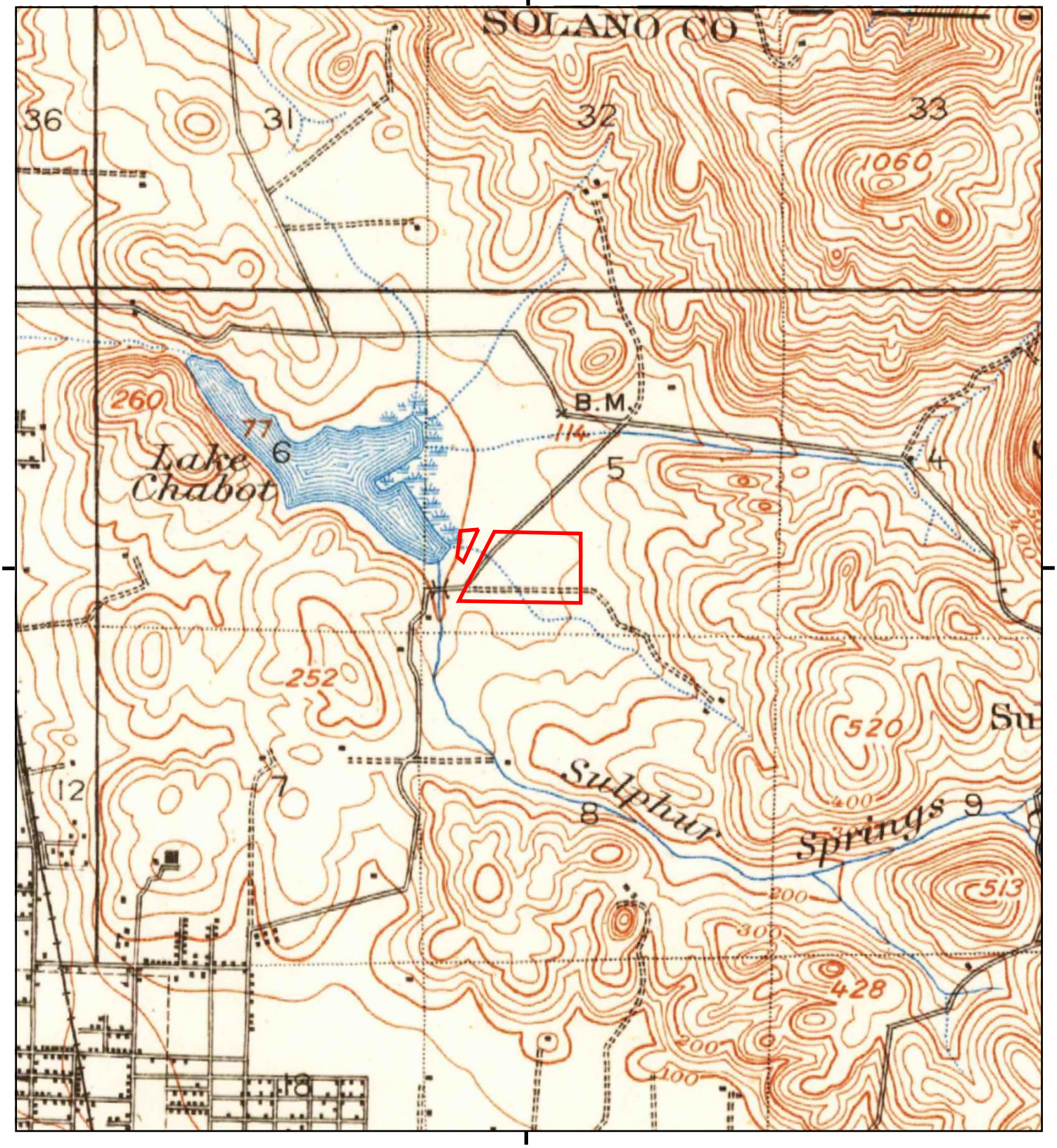
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Karquines, 1898, 15-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Carquinez Strait, 1896, 15-minute

SITE NAME: Cooke Property
ADDRESS: Turner Parkway
Vallejo, CA 94591
CLIENT: Engeo Inc.

N

APPENDIX D

FIRST AMERICAN TITLE COMPANY

Preliminary Title Report

APPENDIX D

First American Title

First American Title Company

4750 Willow Road, #100
Pleasanton, CA 94588

File No.: 0131-621755ala (st)

This report has been amended/updated to reflect the following matters:

[ ] No changes made to the report other than the Effective Date

[ ] Property address has been revised

[ ] Vesting has been revised

[X] Legal Description has been revised

[ ] Taxes have been updated

[ ] Original item number(s) have been removed

[ ] New item number(s) have been added

[ ] Original item number(s) have been revised

[ ] Other:

Amended 9/7/2016

First American Title

First American Title Company

4750 Willow Road, #100
Pleasanton, CA 94588

Escrow Officer:	Barbara Clarke
Phone:	(916)786-5300
Fax No.:	(866)373-6882
E-Mail:	bclarke@firstam.com
Title Officer:	Sheryl Taylor
Phone:	(559)470-8819
Fax No.:	
E-Mail:	ShTaylor@firstam.com
E-Mail Loan Documents to:	Lenders please contact the Escrow Officer for email address for sending loan documents.
Buyer:	Lewis Managment Corp
Property:	0052-320-250 and 0081-490-010 Vallejo, CA

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit A attached. *The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.* Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of August 26, 2016 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

ALTA Extended Loan Policy - 2006

ALTA Extended Owner Policy - 2006

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

FRANK TOLLER, AS SOLE TRUSTEE OF THE MELVIN D. COOKE TRUST U/A DATED NOVEMBER 20, 2012

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A fee.

A fee as to Parcel(s) One of Tract One and Tract Two, an easement as to Parcel(s) Two of Tract One.

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

1. General and special taxes and assessments for the fiscal year 2016-2017, a lien not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. An easement for right of way for pipe line and incidental purposes, recorded May 9, 1930 as Instrument No. 1789 in Book 55, Page 189 of Official Records.
   In Favor of: Pacific Gas and Electric Company
   Affects: As described therein

4. Waiver and relinquishment of abutter's rights including access rights appurtenant to grantors remaining property adjoining freeway highway, provided, however, that such remaining property shall abut upon and have access to a frontage road which will be connected to the freeway only at such points as may be established by public authority, waiver of claim for damages and other covenants related to the establishment of a freeway highway, as provided in the following deeds from either one or both August Cooke and Minnie Cooke, his wife, in favor of the State of California, to wit:

   (A) Deed, dated April 13, 1933 and recorded May 31, 1933, in Book 105 of Official Records, Page 196, as Recorder's Instrument No. 2012.

   (B) Deed, dated January 31, 1945 and recorded April 16, 1945, in Book 301 of Official Records, Page 154, as Recorder's Instrument No. 3701.

   (C) Deed, dated June 26, 1945 and recorded September 21, 1945, in Book 331, Page 176, as Recorder's Instrument No. 9658.

   (D) Deed, dated April 15, 1948 and recorded April 12, 1949, in Book 476 of Official Records, Page 236, as Recorder's Instrument No. 3734.

   (E) Deed, dated December 22, 1954 and recorded August 15, 1955, in Book 783 of Official Records, Page 587, as Recorder's Instrument No. 15728.

5. An easement for a right of way and incidental purposes, recorded May 31, 1933 in Book 105, Page 196 of Official Records.
   In Favor of: State of California
   Affects: As described therein

   The location of the easement cannot be determined from record information.

6. An easement for pipe lines and appurtenances hereto, together with the right of ingress and egress, right of way and incidental purposes, recorded October 22, 1937 as Instrument No. 5921 in Book 180, Page 333 of Official Records.
   In Favor of: Pacific Gas and Electric Company, a California corporation
   Affects: As described therein

   The location of the easement cannot be determined from record information.

7. An easement for a right of way and incidental purposes, recorded November 5, 1937 in Book 179, Page 447 of Official Records.
   In Favor of: Vallejo Electric Light and Power Company, a corporation
   Affects: As described therein

   The location of the easement cannot be determined from record information.

8. An easement for slope encroachment and incidental purposes, recorded August 15, 1955 as Instrument No. 15729 in Book 783, Page 590 of Official Records.
   In Favor of: State of California
   Affects: As described therein

9. Waiver of damages as contained in the slope control easement.
Recorded: August 15, 1955, Book 783, Page 590, Series No. 15729, Official Records.

10. A waiver of any claims for damages by reason of the location, construction, landscaping or maintenance of a contiguous freeway, highway or roadway, as contained in the document recorded July 27, 1959 in Book 985, Page 495 of Official Records.

11. An easement for the right of access to and from the nearest roadway of State Highway and incidental purposes, recorded July 27, 1959 in Book 985, Page 495 of Official Records.
In Favor of: State of California
Affects: As described therein

The location of the easement cannot be determined from record information.

12. The effect of a map purporting to show the land and other property, filed September 18, 1962 in Book 8, Page 16 of Record of Surveys.

13. An easement for sanitary sewers and storm drains and incidental purposes, recorded November 17, 1972 as Instrument No. 6979 in Book 1789, Page 674 of Official Records.
In Favor of: Vallejo Sanitation and Flood Control District
Affects: As described therein

14. A document entitled "Notice of Assessment Northeast Quadrant Assessment District No. 55" recorded March 28, 1979 as Book 14144, Page 23029 of Official Records.

15. The effect of a map purporting to show the land and other property, filed March 6, 2013 in Book 30, Page 94 of Record of Surveys.

16. Any easements and/or servitudes affecting easement parcel(s) Two of Tract One herein described.

17. Rights of the public in and to that portion of the land lying within any Road, Street, Alley or Highway.

18. Water rights, claims or title to water, whether or not shown by the public records.

19. Rights of parties in possession.

20. Any facts, rights, interests or claims which would be disclosed by a correct ALTA/NSPS survey.

Prior to the issuance of any policy of title insurance, the Company will require:

21. With respect to the trust referred to in the vesting:
a. A certification pursuant to Section 18100.5 of the California Probate Code in a form satisfactory to the Company.
b. Copies of those excerpts from the original trust documents and amendments thereto which designate the trustee and confer upon the trustee the power to act in the pending transaction.
c. Other requirements which the Company may impose following its review of the material required herein and other information which the Company may require.

22. An ALTA/NSPS survey of recent date which complies with the current minimum standard detail requirements for ALTA/NSPS land title surveys.

INFORMATIONAL NOTES

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

1. General and special taxes and assessments for the fiscal year 2015-2016.

First Installment:	$115.44, PAID
Penalty:	$0.00
Second Installment:	$115.44, PAID
Penalty:	$0.00
Tax Rate Area:	7000
A. P. No.:	0052-320-250

Affects: Tract One

2. General and special taxes and assessments for the fiscal year 2015-2016.

First Installment:	$7,744.42, PAID
Penalty:	$0.00
Second Installment:	$7,744.42, PAID
Penalty:	$0.00
Tax Rate Area:	7000
A. P. No.:	0081-490-010

Affects: Tract One

3. The property covered by this report is vacant land.

4. According to the public records, there has been no conveyance of the land within a period of twenty-four months prior to the date of this report, except as follows:

None

5. We find no open deeds of trust. Escrow please confirm before closing.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

LEGAL DESCRIPTION

Real property in the City of Vallejo , County of Solano, State of California, described as follows:

TRACT ONE:

PARCEL ONE:

ALL OF THAT CERTAIN PROPERTY AS SHOWN ON THE RECORD OF SURVEY ENTITLED "SURVEY OF PORTIONS OF PARCELS 2 AND 3 OF THE MINNIE COOK RANCH AS SHOWN ON THE RECORD OF SURVEY FILED IN BOOK 7 OF SURVEYS AT PAGE 29" RECORDED ON SEPTEMBER 18, 1962 IN BOOK 8 OF SURVEYS, AT PAGE 16, FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SOLANO COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION OF LAND DESCRIBED IN THAT CERTAIN GRANT DEED TO THE STATE OF CALIFORNIA RECORDED ON MAY 28, 1971 IN BOOK 1687, PAGE 184, AND INSTRUMENT NO. 10466, FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SOLANO COUNTY, CALIFORNIA.

THIS LEGAL DESCRIPTION IS MADE PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE RECORDED AUGUST 19, 2015, AS INSTRUMENT NO. 201500075624, OF OFFICIAL RECORDS.

PARCEL TWO:

AN EASEMENT AND RIGHT OF WAY FOR THE PURPOSES OF A ROADWAY AND FOR PUBLIC UTILITIES OVER A TRIANGLE OF LAND PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY CORNER OF THE 0.302 ACRE PARCEL DESCRIBED AND DESIGNATED AS "PARCEL 1" (SAID POINT BEING AT AN ANGLE CORNER IN THE SOUTH BOUNDARY OF COUNTY ROAD NO. 458) OF THAT CERTAIN GRANT DEED EXECUTED BY JACK NEWELL AND BERNICE L. NEWELL, HUSBAND AND WIFE TO MELVIN D. COOKE, RECORDED APRIL 2, 1962, IN BOOK 1132, PAGE 493, OF OFFICIAL RECORDS; THENCE N. 89° 20' 20" W. ALONG SOUTH SIDE OF COUNTY ROAD NO. 458, A DISTANCE OF 55 FEET; THENCE SOUTHEASTERLY A DISTANCE OF 56 FEET, MORE OR LESS TO THAT POINT ON THE WESTERLY BOUNDARY OF THE AFOREMENTIONED "PARCEL 1" WHICH IS S. 18° 20' W. A DISTANCE OF 45 FEET FROM THE POINT OF BEGINNING; THENCE N. 18° 20' E. ALONG SAID BOUNDARY A DISTANCE OF 45 FEET TO SAID POINT BEGINNING.

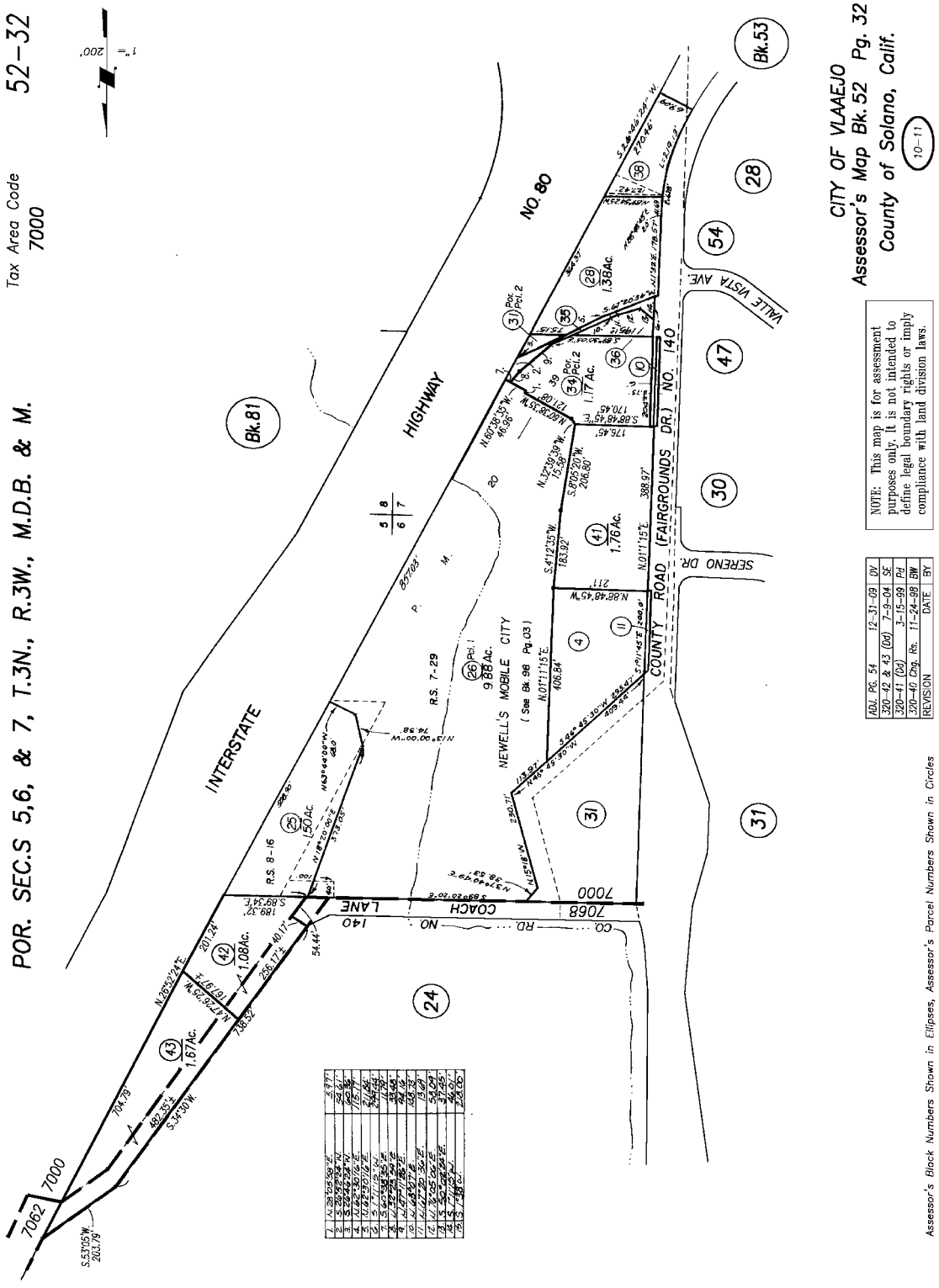
TRACT TWO:

ALL OF PARCEL 1 AS SHOWN ON THE RECORD OF SURVEY RECORDED ON SEPTEMBER 21, 1959 IN BOOK 7 OF SURVEYS, AT PAGE 29, AND FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SOLANO COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION OF LAND DESCRIBED IN THAT CERTAIN "GRANT DEED FOR PUBLIC STREET" FROM MELVIN D. COOKE TO THE CITY OF VALLEJO, A MUNICIPAL CORPORATION, RECORDED MARCH 1, 1984 IN BOOK 1984, PAGE 17702, AND INSTRUMENT NO. 9294, AND FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SOLANO COUNTY, CALIFORNIA.

THIS LEGAL DESCRIPTION IS MADE PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE RECORDED AUGUST 19, 2015, AS INSTRUMENT NO. 201500075623, OF OFFICIAL RECORDS.

APN: 0052-320-250 (Affects Tract I) and 0081-490-010 (Affects Tract II)



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NOTICE

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)

CLTA STANDARD COVERAGE POLICY – 1990

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public, records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13)

EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
   a. building;
   b. zoning;
   c. land use;
   d. improvements on the Land;
   e. land division; and
   f. environmental protection.

   This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

   This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:
For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1% of Policy Amount Shown in Schedule A or $2,500 (whichever is less)	$10,000
Covered Risk 18:	1% of Policy Amount Shown in Schedule A or $5,000 (whichever is less)	$25,000
Covered Risk 19:	1% of Policy Amount Shown in Schedule A or $5,000 (whichever is less)	$25,000
Covered Risk 21:	1% of Policy Amount Shown in Schedule A or $2,500 (whichever is less)	$5,000

2006 ALTA LOAN POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;

(ii) the character, dimensions, or location of any improvement erected on the Land;

(iii) the subdivision of land; or

(iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters

(a) created, suffered, assumed, or agreed to by the Insured Claimant;

(b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

(c) resulting in no loss or damage to the Insured Claimant;

(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or

(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.

4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is

(a) a fraudulent conveyance or fraudulent transfer, or

(b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.

7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

[Except as provided in Schedule B - Part II,[t[or T]his policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[PART I

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.]

PART II

In addition to the matters set forth in Part I of this Schedule, the Title is subject to the following matters, and the Company insures against loss or damage sustained in the event that they are not subordinate to the lien of the Insured Mortgage:]

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

(i) the occupancy, use, or enjoyment of the Land;

(ii) the character, dimensions, or location of any improvement erected on the Land;

(iii) the subdivision of land; or

(iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters

(a) created, suffered, assumed, or agreed to by the Insured Claimant;

(b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

(c) resulting in no loss or damage to the Insured Claimant;

(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 or 10); or

(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.

4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is

(a) a fraudulent conveyance or fraudulent transfer, or

(b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.

5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[The above policy form may be issued to afford ither Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.
7. [Variable exceptions such as taxes, easements, CC&R's, etc. shown here.]

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (12-02-13)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

(i) the occupancy, use, or enjoyment of the Land;

(ii) the character, dimensions, or location of any improvement erected on the Land;

(iii) the subdivision of land; or

(iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters

   (a) created, suffered, assumed, or agreed to by the Insured Claimant;

   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

   (c) resulting in no loss or damage to the Insured Claimant;

   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or

   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is

   (a) a fraudulent conveyance or fraudulent transfer, or

   (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

First American Title

Privacy Information
We Are Committed to Safeguarding Customer Information
In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability
This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information
Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information
We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers
Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security
We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site
First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.
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FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values
Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.
Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.
Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.
Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.
Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.
Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

APPENDIX E

ENVIRONMENTAL DATA RESOURCES, INC.

Aerial Photo Decade Package

APPENDIX E

Cooke Property
Turner Parkway
Vallejo, CA 94591

Inquiry Number: 4770857.9
November 04, 2016

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

11/04/16

Site Name:

Cooke Property
Turner Parkway
Vallejo, CA 94591
EDR Inquiry # 4770857.9

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Travis Chatters

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1993	1"=500'	Acquisition Date: July 06, 1993	USGS/DOQQ
1982	1"=500'	Flight Date: July 05, 1982	USDA
1974	1"=500'	Flight Date: April 30, 1974	USGS
1968	1"=500'	Flight Date: April 22, 1968	USGS
1958	1"=500'	Flight Date: July 25, 1958	USGS
1952	1"=500'	Flight Date: August 03, 1952	USDA
1947	1"=500'	Flight Date: March 01, 1947	USGS
1937	1"=500'	Flight Date: August 20, 1937	USDA

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INQUIRY #: 4770857.9
YEAR: 2012
= 500'
N
EDR

INQUIRY #: 4770857.9
YEAR: 2010
= 500'
N
EDR

INQUIRY #: 4770857.9
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 4770857.9

YEAR: 2005

= 500'

N

EDR

INQUIRY #: 4770857.9

YEAR: 1993

= 500'

N

EDR

INQUIRY #: 4770857.9
YEAR: 1982
= 500'
N
EDR

INQUIRY #: 4770857.9
YEAR: 1974
= 500'
N
EDR

INQUIRY #: 4770857.9
YEAR: 1968
= 500'
N
EDR

INQUIRY #: 4770857.9
YEAR: 1958
= 500'
N
EDR

INQUIRY #: 4770857.9

YEAR: 1952

= 500'

N

EDR

INQUIRY #: 4770857.9
YEAR: 1947
= 500'
N
EDR

INQUIRY #: 4770857.9
YEAR: 1937
= 500'
N
EDR

APPENDIX F

ENVIRONMENTAL DATA RESOURCES, INC.

City Directory

APPENDIX F

Cooke Property
Turner Parkway
Vallejo, CA 94591

Inquiry Number: 4770857.5
November 04, 2016

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2013	☐	☑	Cole Information Services
2008	☐	☑	Cole Information Services
2003	☐	☑	Cole Information Services
1999	☐	☑	Cole Information Services
1995	☐	☑	Cole Information Services
1992	☐	☑	Cole Information Services
1988	☑	☑	Polk City Directory
1984	☐	☑	Polk City Directory
1979	☐	☑	Polk City Directory
1974	☐	☑	Polk City Directory
1970	☐	☑	Polk City Directory
1965	☐	☑	Polk City Directory
1959	☐	☐	Polk City Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

Turner Parkway
Vallejo, CA 94591

Year	*CD Image*	*Source*	
TURNER PKWY			
2013	-	Cole Information Services	Street not listed in Source
2008	-	Cole Information Services	Street not listed in Source
2003	-	Cole Information Services	Street not listed in Source
1999	-	Cole Information Services	Street not listed in Source
1995	-	Cole Information Services	Street not listed in Source
1992	-	Cole Information Services	Street not listed in Source
1988	pg A19	Polk City Directory	
1984	-	Polk City Directory	Street not listed in Source
1979	-	Polk City Directory	Street not listed in Source
1974	-	Polk City Directory	Street not listed in Source
1970	-	Polk City Directory	Street not listed in Source
1965	-	Polk City Directory	Street not listed in Source
1959	-	Polk City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
ADMIRAL CALLAGHAN LN			
2013	pg. A1	Cole Information Services	
2008	pg. A3	Cole Information Services	
2003	pg. A5	Cole Information Services	
1999	pg. A8	Cole Information Services	
1995	pg. A11	Cole Information Services	
1992	pg. A13	Cole Information Services	
1988	pg. A15	Polk City Directory	
1988	pg. A16	Polk City Directory	
1984	pg. A20	Polk City Directory	
1984	pg. A21	Polk City Directory	
1979	pg. A23	Polk City Directory	
1974	pg. A24	Polk City Directory	
1970	pg. A25	Polk City Directory	
1970	pg. A26	Polk City Directory	
1965	pg. A27	Polk City Directory	
1959	-	Polk City Directory	Target and Adjoining not listed in Source
FOOTHILL DR			
2013	pg. A2	Cole Information Services	
2008	pg. A4	Cole Information Services	
2003	pg. A7	Cole Information Services	
1999	pg. A9	Cole Information Services	
1995	pg. A12	Cole Information Services	
1992	pg. A14	Cole Information Services	
1988	pg. A17	Polk City Directory	
1988	pg. A18	Polk City Directory	
1984	pg. A22	Polk City Directory	
1979	-	Polk City Directory	Street not listed in Source
1974	-	Polk City Directory	Street not listed in Source
1970	-	Polk City Directory	Street not listed in Source
1965	-	Polk City Directory	Street not listed in Source
1959	-	Polk City Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	Cole Information Services

ADMIRAL CALLAGHAN LN 2013

730	AUTOZONE
731	REDWOOD VETERINARY HOSPITAL
746	PAPA MURPHYS TAKE N BAKE PIZZA
750	SENSE SALON
754	ALLIED CASH ADVANCE
756	CHIA SAMUEL S OD
758	VALLEJO GRILL
760	REDWOOD CLEANERS
762	PRO NAILS
	VALLEJO JELLY DONUTS
764	LIBERTY TAX SERVICE
774	SAFEWAY
	STARBUCKS COFFEE
	WELLS FARGO
794	OIL CHANGERS
800	AVERY GREENE HONDA
900	SLEEP TRAIN
902	MCDONALDS
904	RADIOSHACK
	TARGET
908	PAYLESS SHOESOURCE
910	SALLY BEAUTY SUPPLY
918	RADIOSHACK
920	RASPUTIN MUSIC
924	CHECK INTO CASH
926	GOLDEN ISLAND MASSAGE
928	FAMILY CHIROPRACTIC & SPORTS THERA
930	EYEBROW HUB
938	DOLLAR TREE

Target Street	Cross Street	Source
-	✓	Cole Information Services

FOOTHILL DR 2013

100	ANTONIO SABATER
124	JOHN LUJAN
210	AMARJIT SAHOTA
220	DAVID APILADO
230	MICHAEL MARINO
300	OCCUPANT UNKNOWN
310	CONSOLACI CADIZ
320	BILL BALISI
400	CURTIS CARR
410	OCCUPANT UNKNOWN
421	EDDIE HINMAN
451	ANN HOLMES
600	MARVIN GREER
607	RAYMOND CALLEJO
615	MOISES BALAGOT
625	THOMAS GREEN
701	DANIEL GILL
707	ROGER VILLANUEVA
710	ALVIN LOPEZ
	BONIFACIO ARDALES
715	RYAN MENDOZA
725	I ENTERPRISING
	ROMUALDO ALVAREZ
735	ARSEN ELIAPO
800	ELIZABETH BASCARA
	PATRICIA OCHOA
808	JESUS MENDOZA
809	FAUSTO DULAY
816	ROMULO LADIAO
817	MARK CABULOY
824	THEODORE BORLEY
825	TAT FONG
832	EFREN CALMA
833	CLARA SHELBY
840	XU WANG
841	IRMAN ARCIBAL
849	BENJAMIN CABANILLA
856	ANTONIO FRANCO
857	FELIX TRINIDAD
865	NAREK GABRIELIAN
872	VICTOR BOGNOT
873	OCCUPANT UNKNOWN
881	JOHN DYER
901	FRANCOIS ASSEMIAN
921	OCCUPANT UNKNOWN
941	JAMES JAMIAS
1001	MICHAEL MCCLAIN
1011	RONALD FOWLER

Target Street	Cross Street	Source
-	✓	Cole Information Services

ADMIRAL CALLAGHAN LN 2008

730	AUTOZONE INC
731	GALE JAGELS DVM
	GENEVER E FOX DVM
	REDWOOD VETERINARY HOSPITAL
742	STARA INDIAN CUISINE
744	ALLSTATE INSURANCE CO
748	REED FAMILY BARBEQUE
	TAILORED TO FIT
750	SENSE SALON
754	ALLIED CASH ADVANCE
756	CHIA SAMUEL S OD
	PRIMARY EYECARE
762	PAMS BEAUTY CARE
	PAMS NAIL CARE CENTER
764	JACKSON HEWITT TAX SERVICE
768	GOLDEN 1 CREDIT UNION
774	SAFEWAY PHARMACY
784	REDWOOD CLEANERS
794	OIL CHANGER INC
800	AVERY GRENE MOTORS
900	SLEEP TRAIN
904	TARGET
908	PAYLESS SHOESOURCE
910	SALLY BEAUTY SUPPLY
914	HYMAN FAMILY LP
918	RADIOSHACK
922	SCREAMERS
924	CHECK INTO CASH
926	PRETTY PLUMP
	RED ACRES FINANCIAL SERVICES
936	COLOR MOTION
	PERFECT STUDIO VALLEJO
938	CITIFINANCIAL

Target Street	Cross Street	Source
-	✓	Cole Information Services

FOOTHILL DR 2008

100	ANTONIO SABATER
124	JOHN LUJAN
200	OCCUPANT UNKNOWN
210	GURNEK SAHOTA
220	YONG LIANG
230	MICHAEL MARINO
300	ANTONIO MALLARE
310	CONSOLACION CADIZ
320	OCCUPANT UNKNOWN
400	CURTIS CARR
410	JASON ESTELLA
421	GRETA SYLVESTER
510	CRIS VILLANUEVA
	LIVING BREAD MINISTRIES
600	ARTHUR EVANGELISTA
607	FRED THOMAS
615	MOISES BALAGOT
625	THOMAS GREEN
701	OCCUPANT UNKNOWN
707	LISA CONSTANTINO
710	BONIFACIO ARDALES
715	RYAN MENDOZA
725	JULIET CALALO
735	ARSEN ELIAPO
800	OCCUPANT UNKNOWN
801	OCCUPANT UNKNOWN
808	JESUS MENDOZA
809	FAUSTO DULAY
816	CK PRODUCTION
	ROMULO LADIAO
824	FEIL TAX SERVICES
	LINDA FEIL
825	DERRICK LANGFORD
832	GERALD JENNINGS
833	CLARA SHELBY
840	NOEL ESCANO
841	NESTOR ARCIBAL
849	BENJAMIN CABANILLA
856	OCCUPANT UNKNOWN
857	KARL PARKER
865	ROBERT GRAYSON
872	VICTOR BOGNOT
873	MARC SPEARS
881	JOHN DYER
901	F FELIPE
921	OCCUPANT UNKNOWN
941	JAMES JAMIAS
1001	MICHAEL MCCLAIN
1011	RICARDO PINEDA

Target Street	Cross Street	Source
-	✓	Cole Information Services

ADMIRAL CALLAGHAN LN 2003

730	AUTOZONE
731	GENEVER FOX
	REDWOOD VETERINARY HOSPITAL
742	STARA INDIAN CUISINE
744	JIM SPENCER
	SPENCER JIM INS
746	PAPA MRPHYS TAKENBAKE PIZZA
748	RICHARD MAHANAY
750	DESIGNER CUTS
	ERIKA HIRATA
754	OCCUPANT UNKNOWN
756	CHIA SAMUEL S OD
	DR SAMUEL CHIA
	PRIMARY EYECARE
	SAMUEL S CHIA OD
758	SOUTH VILLA
	VILLA SOUTH
760	HALE ROBERT DDS
	MOZSARY PTR G DDS A PRF CORP
	MOZSARY ROBERT DDS
	NORCAL TRI CITY DENTAL SRVC
	PETER G MOZSARY INC
	PGM INC
762	PAMS NALL CARE CTR
	ROYAL JELLY DONUTS
764	HAIR FOR U TOO
	JACKSON HEWITT TAX SERVICE
	OCCUPANT UNKNOWN
	REDWOOD LAUNDRY
766	GRAY MITCHELL PAULA DC CCSP
	OCCUPANT UNKNOWN
	WOLFE CLD B LCNSD ACPNCTRST
768	ALLIED CASH ADVANCE
774	SAFEWAY FOOD & DRUG
	SAFEWAY STORES VALLEJO
	WELLS FARGO FINANCIAL INC
784	KITTY LEE
	REDWOOD CLEANERS
786	AVIS RENT A CAR
794	OCCUPANT UNKNOWN
800	AVERY GREENE MOTORS
900	OCCUPANT UNKNOWN
	SLEEP TRAIN
908	OCCUPANT UNKNOWN
	PAYLESS SHOESOURCE
910	SALLY BEAUTY SUPPLY
914	DOLLAR JOES
	OCCUPANT UNKNOWN
	SUSIES DEALS
920	OCCUPANT UNKNOWN

Target Street	Cross Street	Source
-	✓	Cole Information Services

ADMIRAL CALLAGHAN LN 2003 (Cont'd)

924	CHECK INTO CASH
926	REALSIZE RETAILING SYSTEMS INC
928	CABRERA DAKILA CHIROPRACTOR
	FAMILY CHRPRCTC & SPRT THRPY
	STEPHANO JOSEPH DC
930	GLENN MACAYAN
	PLANET PINOY
932	OCCUPANT UNKNOWN
	TAKE 2 CONSIGNMENTS
934	MILAD SHAHEEN
936	NICOLAS CARRION ENTERPRISES
	PERFECT STUDIO
940	PAULA DIAZ
	WESTERN CHRISTIAN BOOK STORES

Target Street	Cross Street	Source
-	✓	Cole Information Services

FOOTHILL DR 2003

100	JOSE SABATER
200	OCCUPANT UNKNOWN
210	GURNEK SAHOTA
220	DARWIN NAGAL
230	MICHAEL MARINO
300	ANTONIO MALLARE
310	CELING CADIZ
320	OCCUPANT UNKNOWN
400	ANDY HARRIS
410	CLARITA ESTELLA
421	MARLON HIPOLITO
510	C VILLANUEVA
600	MICHAEL GAYAC
607	RONILIO SALVADOR
615	MOISES BALAGOT
625	THOMAS GREEN
701	LAWRENCE GUTIERREZ
707	JOSEPHINE OMINGA
710	SCOTT MACKENZIE
715	RHONA RIVERA
725	JULIET CALALO
735	ARSEN ELIAPO
800	BELINDA ESTIMO
	CHELSEA BAY JNTRL SERVICE
	FELICITAS BASCARA
801	MARIA GABRIEL
	NESTOR ARCIBAL
808	JESUS MENDOZA
809	FAUSO DULAY
816	ROMULO LADIAO
817	JOAQUIN SANCHEZ
824	LINDA FEIL
825	DARREN SANCHEZ
832	GERALD JENNINGS
833	CLARA SHELBY
840	HERBERT HORDER
841	MANUELITO ARCIBAL
849	BENJAMIN CABANILLA
856	ROSARIO VALENZUELA
857	JASON TURNER
865	ROBERT GRAYSON
872	VICTOR BOGNOT
873	ROSSINI VILLANUEVA
881	JOHN DYER
901	F FELIPE
921	LUIS BORDON
941	JAMES JAMIAS
1001	MICHAEL MCCLAIN
1011	RONALD FOWLER

Target Street	Cross Street	Source
-	✓	Cole Information Services

ADMIRAL CALLAGHAN LN 1999

730	CHIEF AUTO PARTS
731	BREER JULIE DVM
	FOX GENEVER E DVM
	HUEBNER JOHN C DVM
	JAGELS GALE DVM
	REDWOOD VETERINARY HOSPITAL
742	OCEAN WORLD AQUATICS
744	ALLSTATE INSURANCE COMPANIES SALES OFFICES
	SPENCER JIM INS
746	MURPHYS PIZZA
	PAPA MURPHYS TAKE N BAKE PIZZA
748	CANDYS FLORIST & GIFTS
750	DESIGNER CUTS
752	LUCKY TOURS
	RENO TOURS
756	CHIA SAMUEL S OD
	PRIMARY EYE CARE OPTOMETRY
758	SOUTH VILLA
760	MOZSARY PETER G INCORPORATED
	NORCAL TRI CITY DENTAL SERVICES INCORPORATED
762	HAIR FOR YOU
	PAMS NALL CARE CENTER
	ROYAL JELLY DONUTS
764	REDWOOD LAUNDRY
774	SAFEWAY STORES
	WELLS FARGO BANK BRANCH OFFICES
784	REDWOOD CLEANERS
794	OIL CHANGERS
800	AVERY GREENE MOTORS BODY SHOP
	AVERY GREENE MOTORS MAIN OFFICE & SERVICE DEPARTMENT
	GREENE AVERY MOTORS NEW & USED CARS
	HONDA AUTOMOBILES VALLEJO
900	PIER 1 IMPORTS
	SLEEP TRAIN
902	MCDONALDS RESTAURANT
904	TARGET STORES
908	PAYLESS SHOESOURCE
910	SALLY BEAUTY SUPPLY
914	DOLLAR JOES
918	RADIOSHACK A DIVISION OF TANDY CORPORATION
	RDO SHACK A DIVISON OF TANDY CORPORATION CONSUMER ELECTRONIC
926	PRETTY & PLUMP
940	JENNY CRAIG WEIGHT LOSS CENTRES

Target Street	Cross Street	Source
-	✓	Cole Information Services

FOOTHILL DR 1999

100	ANTONIO SABATER
124	JOHN LUJAN
210	GURNEK SAHOTA
220	JIAN LIANG
	OCCUPANT UNKNOWN
230	MICHAEL MARINO
300	ANTONIO MALLARE
310	CONSOLACI CADIZ
	OCCUPANT UNKNOWN
320	DOUGLES & ASSOCIATES
	OCCUPANT UNKNOWN
400	CURTIS CARR
410	JASON ESTELLA
421	GRETA SYLVESTER
510	OCCUPANT UNKNOWN
600	ARTHUR EVANGELISTA
615	MOISES BALAGOT
625	THOMAS GREEN
701	OCCUPANT UNKNOWN
707	LISA CONSTANTINO
710	BONIFACIO ARDALES
	SCOTT MACKENZIE
715	OCCUPANT UNKNOWN
725	JULIET CALALO
735	ARSEN ELIAPO
800	EFREN CALMA
801	NESTOR ARCIBAL
808	JESUS MENDOZA
809	FAUSTO DULAY
	JERILYN CAMPOS
816	ROMULO LADIAO
817	OCCUPANT UNKNOWN
824	LINDA FEIL
825	KEVIN BROWN
	OCCUPANT UNKNOWN
832	GERALD JENNINGS
833	CLARA SHELBY
840	NOEL ESCANO
	OCCUPANT UNKNOWN
849	B CABANILLA
	BENJAMIN CABANILLA
857	KARL PARKER
	WILLIE CARNEY
865	ROBERT GRAYSON
	TIMOTHY CORBETT
872	VICTOR BOGNOT
873	ROSSINI VILLANUEVA
881	JOHN DYER
901	F FELIPE
	SURETY LIFE INSURANCE PADRE

Target Street	Cross Street	Source
-	✓	Cole Information Services

FOOTHILL DR 1999 (Cont'd)

941 ANNALISSA AMANTE
1001 MICHAEL MCCLAIN
1011 RICARDO PINEDA

Target Street	Cross Street	Source
-	✓	Cole Information Services

ADMIRAL CALLAGHAN LN 1995

730	CHIEF AUTO PARTS
731	REDWOOD VETERINARY HOSPITALS
742	ROUND TABLE PIZZA
744	ALLSTATE INSURANCE
746	ABC 1 HOUR PHOTO
748	INNOVATIONS HAIR DESIGN
	REDWOOD BEAUTY SUPPLY
750	DESIGNER CUTS
	LES NAILS
752	VALLEJO CHECK CASHING
754	OLAN MILLS PORTRAIT STUDIO
758	SOUTH VILLA
764	PAMS NAIL CARE CTR
766	STAR SHIRT ENTERPRISE
768	KUNG FU INSTITUTE
774	CHINA EXPRESS
	SAFEWAY STORES INC
	WELLS FARGO BANK
784	REDWOOD CLEANERS
786	MOVIE MOVERS
794	ZOOM LUBE
800	AVERY GREENE MOTORS
902	MC DONALDS
904	TARGET STORES
908	PAYLESS SHOE SOURCE
910	SALLY BEAUTY SUPPLY
914	CLOTHES TIME INC
	U S VIDEO
918	RADIO SHACK
920	FIVE DOLLAR CLOTHING STORE
922	FOXY 5
926	PRETTY & PLUMP
928	COMPUWORLD OF VALLEJO
930	BODY GEAR
934	LAURENS HALLMARK
936	ATHLETIC X PRESS
940	JENNY CRAIG WEIGHT LOSS CTR

Target Street	Cross Street	Source
-	✓	Cole Information Services

FOOTHILL DR 1995

200	CERVANTES, GIL H
210	SAHOTA, GURNEK S
220	NAGAL, DARWIN
230	MARINO, MICHAEL J
310	CADIZ, C L
400	LARGO, CESAR L
410	COMPUTER SERVICES CTR
	ESTELLA, BO R
510	HAMILTON, SHARON
600	GAYAC, MICHAEL
607	VALENCIA, XAVIER M
615	BALAGOT, MOISES O
625	GREEN, THOMAS
701	OCCUPANT UNKNOWNN
707	TEIN, MICHAEL
710	BRINKERHOFF, LEROY
715	MENDOZA, JUDITH R
735	ELIAPO, MAGAGA
800	ESTIMO, BELINDA
801	ARCIBAL, NESTOR S
808	OCCUPANT UNKNOWNN
809	CAMPOS, CIRILO M
816	OCCUPANT UNKNOWNN
817	TUSELL, JORGE E
824	SOLLARS, CHARLES
825	BASH, EDWARD R
832	JENNINGS, GERALD C
833	SHELBY, CLARA
840	FAMY, MARIA
841	ARCIBAL, M S
849	CABANILLA, B C
856	RICE, FRANCIS
857	HAMNER, DAVID B
865	CORBETT, TIMOTHY J
872	BOGNOT, BRENDA A
873	VILLANUEVA, ROSSINI R
881	DYER, JOHN W
901	OCCUPANT UNKNOWNN
921	BRUNO, ERNESTO
941	SCHRAUER, L

Target Street	Cross Street	Source
-	✓	Cole Information Services

ADMIRAL CALLAGHAN LN 1992

730	CHIEF AUTO PARTS
731	REDWD VETRNRY HSPTL
742	ROUND TABLE PIZZA
744	ALLSTATE INS SALES
746	A B C 1 HOUR PHOTO
748	REDWD BEAUTY SUPPLY
750	DESIGNER CUTS
752	CHECK CASHING
754	OLAN MILLS STUDIO
756	AMER TRAVEL NETWORK
758	SOUTH VILLA
760	NUTRI SYS WGHT LOSS
762	PAPAS DELI
764	PAMS NAIL CARE CNTR
774	SAFEWAY STORE PHAR
	WELLS FRGO NEW ACCT
784	REDWD CLEANERS
786	MOVIE MOVERS
800	AVERY GREEN MOTORS
900	PIER 1 IMPORTS
902	MCDONALDS HAMBURGER
904	TARGET STORES
908	PAYLESS SHOESOURCE
914	US VIDEO
916	DISC MANIA
918	RADIO SHACK RTL STR
920	RADIO SHACK OFC
922	CLOTHESTIME
926	PRETTY&PLUMP
928	FOXY 5
930	BODY GEAR
934	HALLMARK SH LAURENS
936	ATHLETIC EXPRESS
938	KIDS MART
940	JENNY CRAIG CENTER

Target Street	Cross Street	Source
-	✓	Cole Information Services

FOOTHILL DR 1992

300	MALLARE, ANTONIO
707	TEIN, MICHAEL
710	BRINKERHOFF, LEROY
809	DULAY, FAUSDO
817	KNAUER, CHUCK
824	SOLLARS, CHARLES
840	FAMY, MARIA
856	DELEONARD, DAVID
901	FELIPE, F
921	BRUNO, ERNESTO

Target Street	Cross Street	Source
-	✓	Polk City Directory

ADMIRAL CALLAGHAN LN 1988

REDWOOD PKWY INTERSECTS

708 Shell Car Wash 554-0933
709 M & H Tobacco Co 643-4526
711 Tell Rentals Inc 644-4438
720 Perko's Coffee Cup restr 552-0280
730 Chief Auto Parts 557-4453
731 Redwood Veterinary Hospital 553-1400
740 Redwood Plaza shopping center
742 Round Table Pizza restr 554-4033
744 Allstate Insurance Co 644-7711
746 A B C One Hour Photo 557-1188
748 Redwood Beauty Supply 552-3304
750 Designer Cuts hair salon 552-4514
752 Vallejo Check Cashing 557-2000
754 Olan Mills Portrait Studio 644-5522
756 Transamerica Financial Services 552-6677
758 Golden Lion Restaurant 552-0600
760 Nutri-System Weight Loss Center
557-1000
762 Papa's Delicatessen 557-2973
764 Vacant
766 Sprinkler Store The 642-7775
768 R & S Five & Ten Dollar Store women
clo ret 552-7375

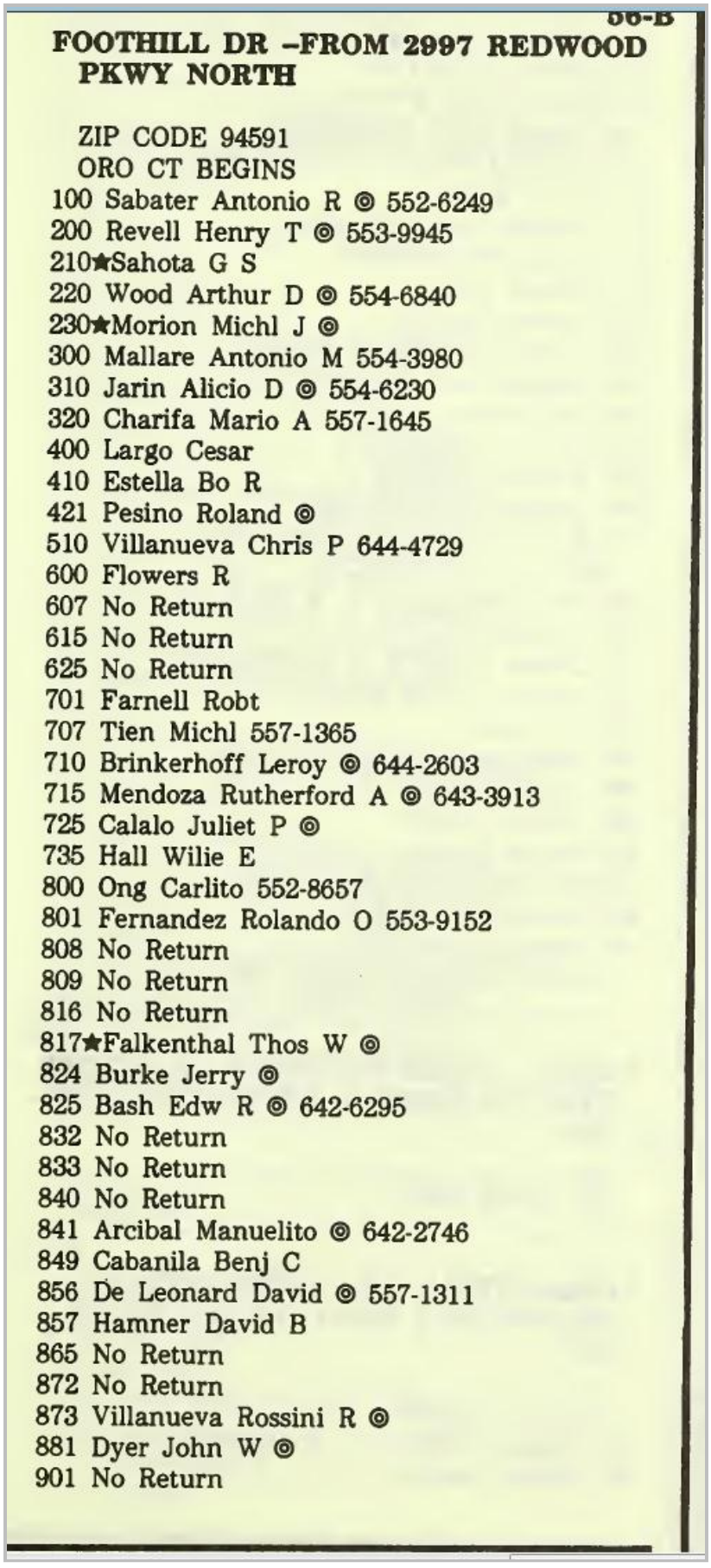
Target Street	Cross Street	Source
-	✓	Polk City Directory

ADMIRAL CALLAGHAN LN 1988

774 Safeway Stores Inc gro retail sls 554-8035
784 Redwood Cleaners clo cleaners 552-8885
786 Movie Movers 643-8646
ROTARY WAY INTERSECTS
800 Greene Avery Motors auto dlr 553-1100
902 Mc Donald's Hamburgers restr 552-7497
904 Targer 642-0419
908 Payless Shoe Source shoe retailers 552-3731
910 Beauty Store & More The 554-6263
912 Mostly Yogurt ice cream & frozen dessert ret 644-5115
914 U S Video 554-6649
916 Music To Your Ears 644-7809
918 Radio Shack 552-6570
920 Radio Shack (Computer Center) computer sls serv & equip 552-1616
922 Clothes Time ret 554-2365
924 Eye Care U S A optom 648-8800
926 Pretty & Plump clothing ret 554-3410
928 Foxy-Five clo-retail 643-4670
930 Body Gear 642-7338
932 De Mares Jewelers Inc 552-2000
934 Lauren's Hallmark Shop 643-4524
U S Postal Service
936 Athletic Express 552-6581
938 Kids Mart 644-9082
940 Linens Unlimited 643-6444
942 Sports Corner Inc 643-4415
944 Vacant
946 Grantree Rental 552-4615
948 Rene's Men & Women Clothing Store 648-1251
950 Vallejo Corner Cleaners 644-2512
952 Toys Plus Pets 553-1500
954 Parties Unlimited 552-7724
956 Oriental Store groc meat ret 552-6800
960 Princess Garden restr 643-0202
962 Software First computer ret 642-4555
964 Vacant
966 Barton's Liquors 554-3256
968 Mail Boxes Etc U S A 642-3533
970 Century 21 Real Estate Academy 643-2136
972a Ortho Mattress & Furniture retail 557-2620

Target Street	Cross Street	Source
-	✓	Polk City Directory

FOOTHILL DR 1988



56-B

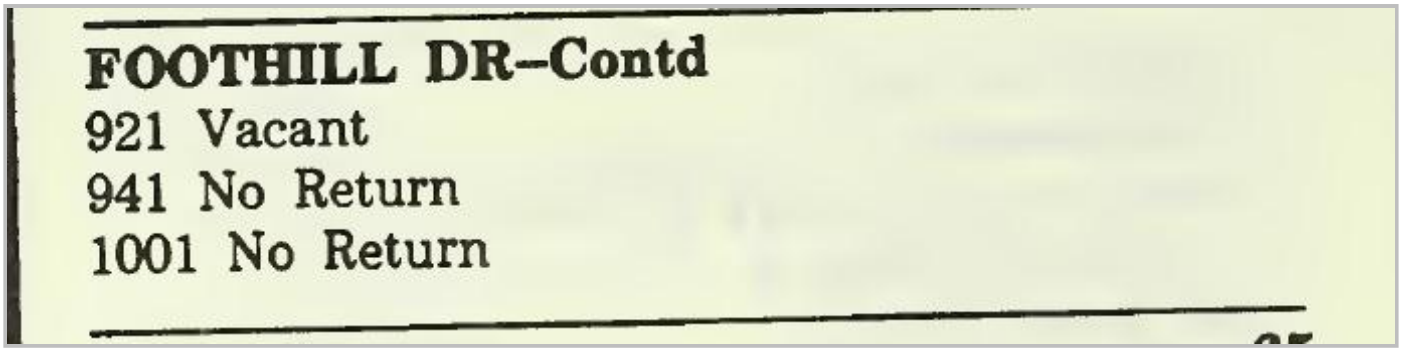
FOOTHILL DR –FROM 2997 REDWOOD PKWY NORTH

ZIP CODE 94591
ORO CT BEGINS

100 Sabater Antonio R ◎ 552-6249
200 Revell Henry T ◎ 553-9945
210★Sahota G S
220 Wood Arthur D ◎ 554-6840
230★Morion Michl J ◎
300 Mallare Antonio M 554-3980
310 Jarin Alicio D ◎ 554-6230
320 Charifa Mario A 557-1645
400 Largo Cesar
410 Estella Bo R
421 Pesino Roland ◎
510 Villanueva Chris P 644-4729
600 Flowers R
607 No Return
615 No Return
625 No Return
701 Farnell Robt
707 Tien Michl 557-1365
710 Brinkerhoff Leroy ◎ 644-2603
715 Mendoza Rutherford A ◎ 643-3913
725 Calalo Juliet P ◎
735 Hall Wilie E
800 Ong Carlito 552-8657
801 Fernandez Rolando O 553-9152
808 No Return
809 No Return
816 No Return
817★Falkenthal Thos W ◎
824 Burke Jerry ◎
825 Bash Edw R ◎ 642-6295
832 No Return
833 No Return
840 No Return
841 Arcibal Manuelito ◎ 642-2746
849 Cabanila Benj C
856 De Leonard David ◎ 557-1311
857 Hamner David B
865 No Return
872 No Return
873 Villanueva Rossini R ◎
881 Dyer John W ◎
901 No Return

Target Street	Cross Street	Source
-	✓	Polk City Directory

FOOTHILL DR 1988



FOOTHILL DR–Contd

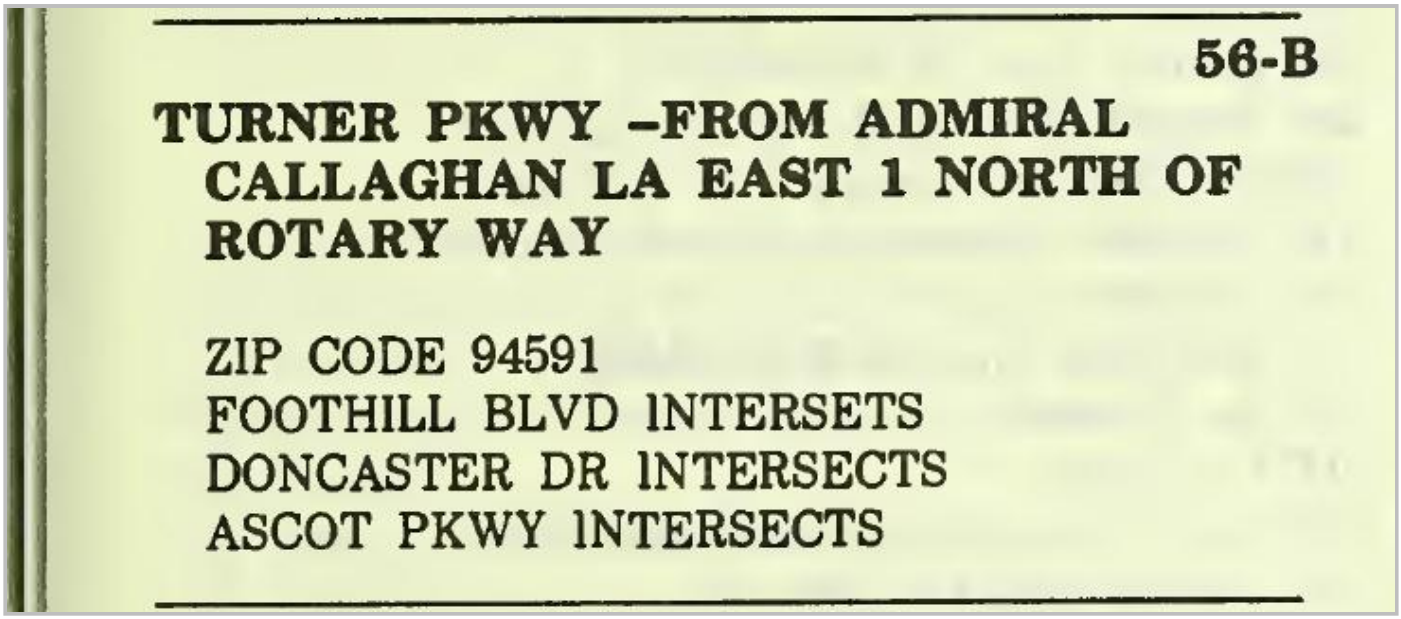
921 Vacant

941 No Return

1001 No Return

Target Street	Cross Street	Source
✓	-	Polk City Directory

TURNER PKWY 1988



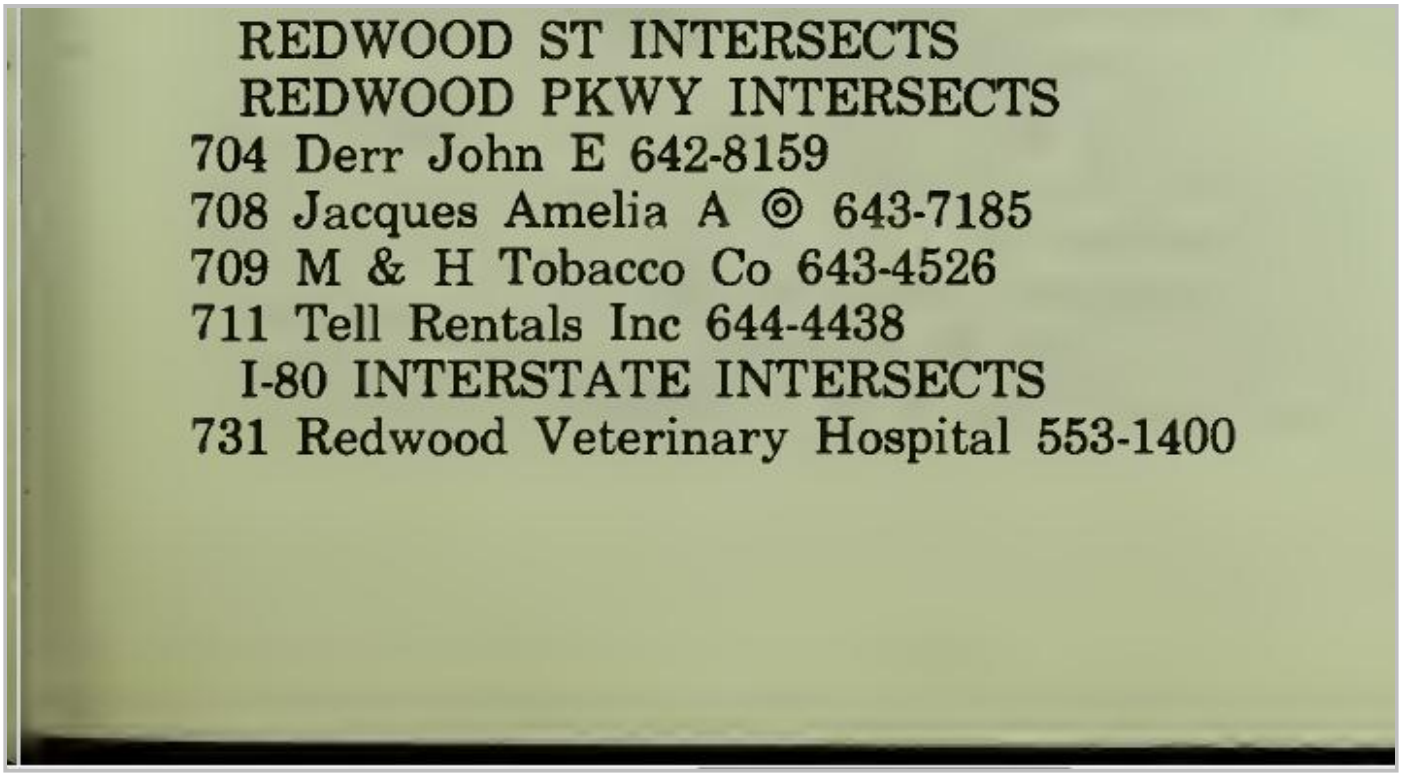
56-B

TURNER PKWY –FROM ADMIRAL CALLAGHAN LA EAST 1 NORTH OF ROTARY WAY

ZIP CODE 94591
FOOTHILL BLVD INTERSETS
DONCASTER DR INTERSECTS
ASCOT PKWY INTERSECTS

Target Street	Cross Street	Source
-	✓	Polk City Directory

ADMIRAL CALLAGHAN LN 1984


REDWOOD ST INTERSECTS
REDWOOD PKWY INTERSECTS
704 Derr John E 642-8159
708 Jacques Amelia A ◎ 643-7185
709 M & H Tobacco Co 643-4526
711 Tell Rentals Inc 644-4438
I-80 INTERSTATE INTERSECTS
731 Redwood Veterinary Hospital 553-1400

Target Street	Cross Street	Source
-	✓	Polk City Directory

ADMIRAL CALLAGHAN LN 1984

740 Redwood Plaza shopping center
742 Round Table Pizza restr 554-4033
744 Allstate Insurance Co 644-7711
746 A B C One Hour Photo 557-1188
748 Redwood Beauty Supply 552-3304
750 Designer Cuts hair salon 552-4514
752 Vallejo Check Cashing 557-2000
754 Olan Mills Portrait Studio 554-8242
756 Fenton Electronics television sls & serv 643-8343
758 Gold Kirin Restaurant 554-8483
760 Nutri-System Weight Loss Center 557-1000
762 Papa's Delicatessen 557-2973
764 Redwood Bottle Shop liquor & misc retail sls 642-7235
766 Vacant
768 Vacant
774 Safeway Stores Inc gro retail sls 554-8035
784 Redwood Cleaners clo cleaners 552-8885
786 Movie Movers 643-8646
ROTARY WAY INTERSECTS
800 Greene Avery Motors auto dlr 553-1100
COLUMBUS PKWY INTERSECTS
902 Mc Donald's restr 552-7497
906 Gemco 554-2912
908 Vacant
910 Beauty Store & More The 554-6263
912 Vacant
914 U S Video 554-6649
916 Sherlock Shoe & Boot 557-5477
918 Radio Shack 552-6570
920 Radio Shack (Computer Center) 552-1616
922 Clothes Time 554-2365
924 Vacant
926 G N C health food store 648-9474
928 Foxy-Five 643-4670
930 Jennel's Fashions 554-2613
932 De Mares Jewelers 552-2000
934 Lawrence Hallmark Shop 643-4524
936 Athletic Shoe Factory 552-6581
938 Kids Mart 644-9082
940 Linens Unlimited 643-6444
942 Sports Corner Inc 643-4415
944 Allison's Place women's fashions 648-9020
946 Wide World Of Shoes 642-1394
950 Tsar Cleaners 644-2512
952 Consumer Distributing 557-3989
954 Vacant
956 Just For Baby (Under Constn)
960 Princess Garden 643-0202
962 Oriental Store 552-6800
964 Rite-Spot Fast Prints
966 Island Liquors 554-3256

Target Street	Cross Street	Source
-	✓	Polk City Directory

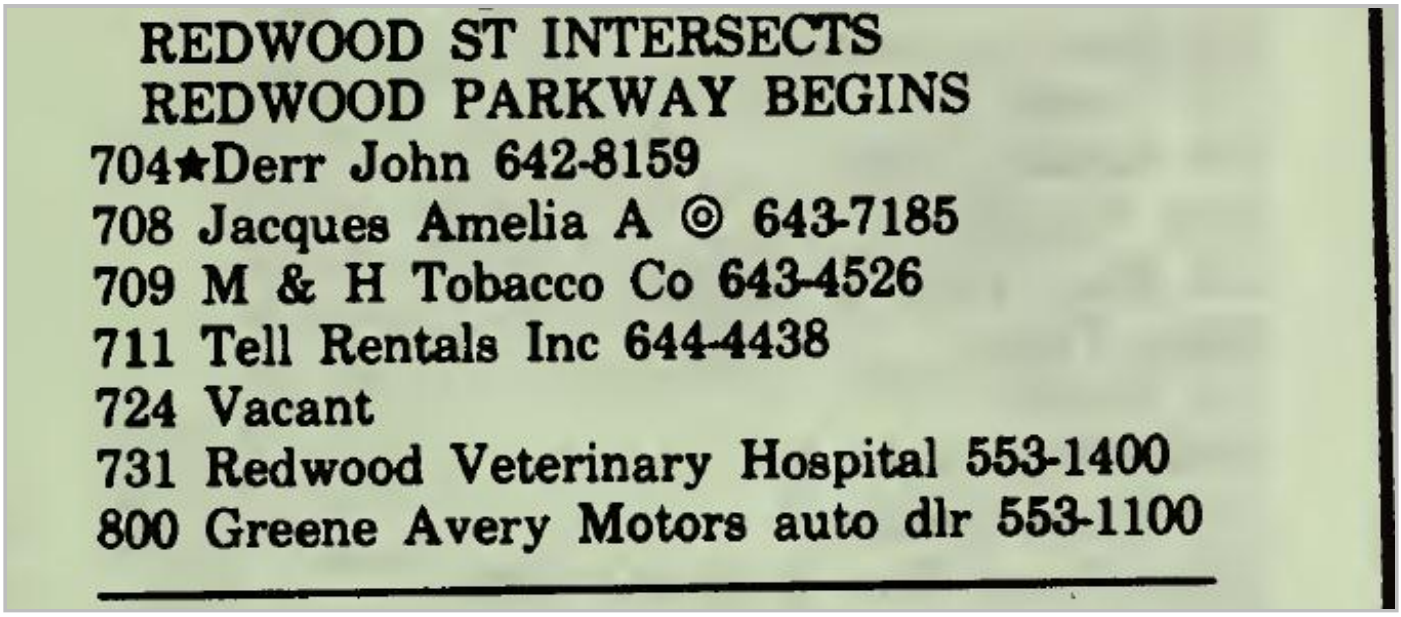
FOOTHILL DR 1984

FOOTHILL DR —FROM 2997 REDWOOD PKWY NORTH

ZIP CODE 94591
ORO CT BEGINS
100 Sabater Antonio R ◎ 552-6249
200 Revell Henry T ◎ 553-9945
210★Remulla Vicente M 553-9945
220★Wood Arthur D ◎ 554-6840
230★Moland Everett V ◎ 642-8068
270 Under Constn
300 Vacant
310★Jarin Alicio D ◎ 554-6230
320★Charifa
400★Largo Cesar
410 No Return
421★Eschete Earl F ◎
600★Flowers
605 Under Constn
615 Under Constn
625 Under Constn
701 Under Constn
707 Under Constn
715★Mendoza Rutherford A ◎ 643-3913
PERCHERON CT BEGINS
DAPPLE DR BEGINS
MUSTANG CT BEGINS
CADLONI LA BEGINS
BYERLY CT BEGINS
PACER CT BEGINS

Target Street	Cross Street	Source
-	✓	Polk City Directory

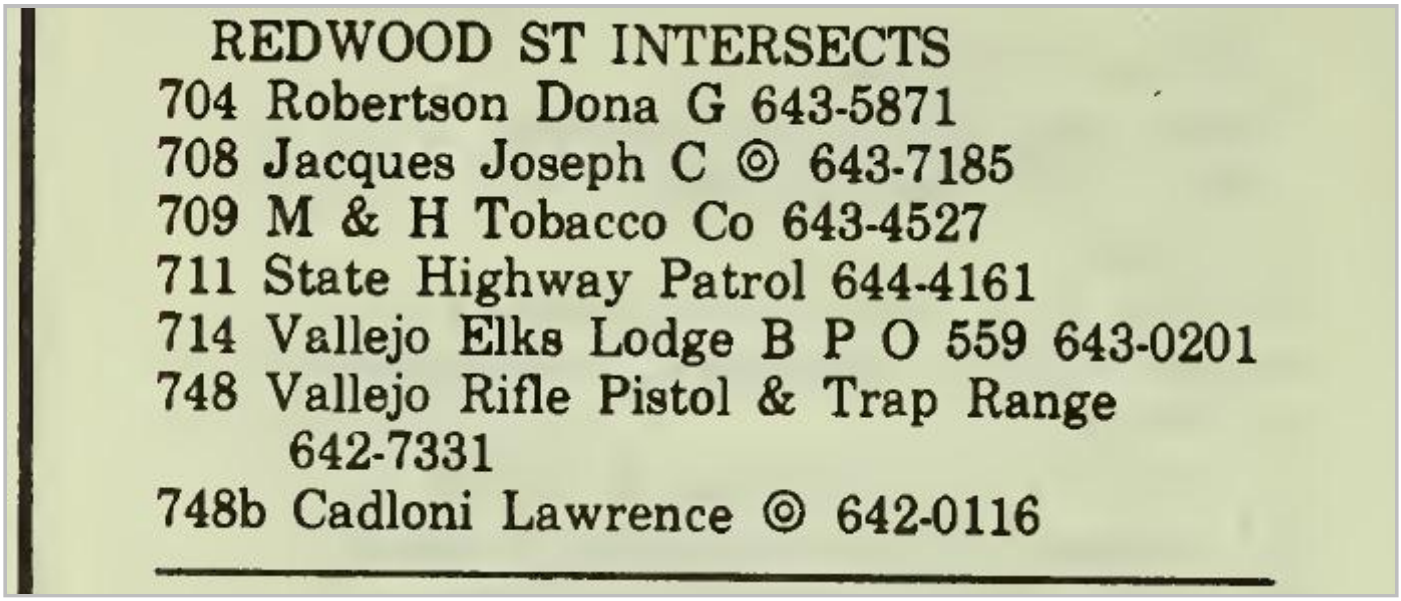
ADMIRAL CALLAGHAN LN 1979



REDWOOD ST INTERSECTS
REDWOOD PARKWAY BEGINS
704★Derr John 642-8159
708 Jacques Amelia A ◎ 643-7185
709 M & H Tobacco Co 643-4526
711 Tell Rentals Inc 644-4438
724 Vacant
731 Redwood Veterinary Hospital 553-1400
800 Greene Avery Motors auto dlr 553-1100

Target Street	Cross Street	Source
-	✓	Polk City Directory

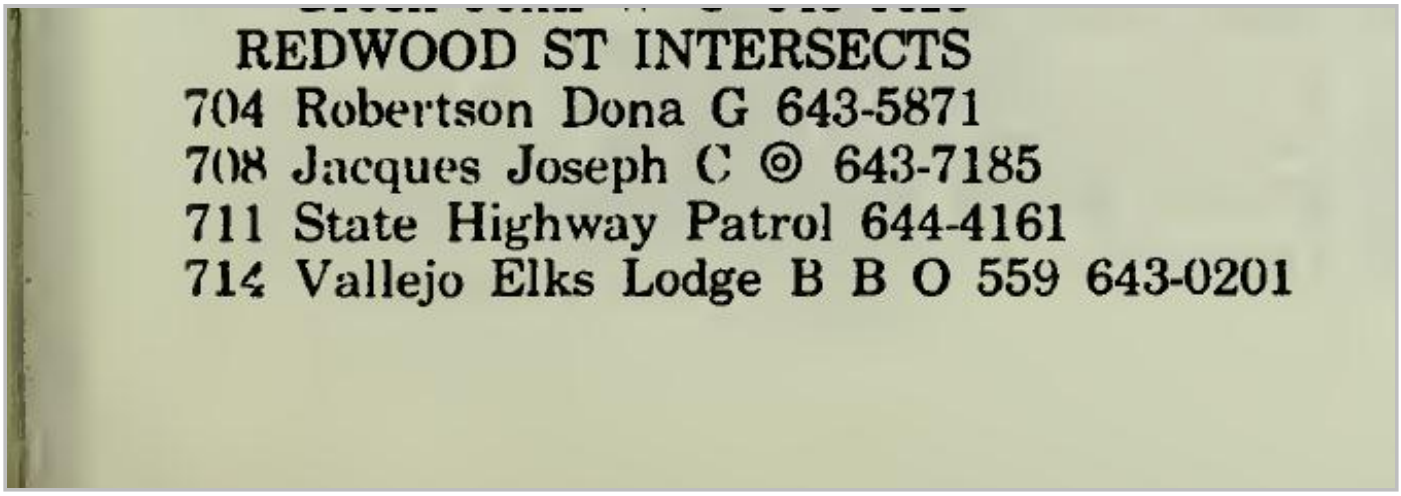
ADMIRAL CALLAGHAN LN 1974



REDWOOD ST INTERSECTS
704 Robertson Dona G 643-5871
708 Jacques Joseph C ◎ 643-7185
709 M & H Tobacco Co 643-4527
711 State Highway Patrol 644-4161
714 Vallejo Elks Lodge B P O 559 643-0201
748 Vallejo Rifle Pistol & Trap Range
642-7331
748b Cadloni Lawrence ◎ 642-0116

Target Street	Cross Street	Source
-	✓	Polk City Directory

ADMIRAL CALLAGHAN LN 1970



REDWOOD ST INTERSECTS
704 Robertson Dona G 643-5871
708 Jacques Joseph C ◎ 643-7185
711 State Highway Patrol 644-4161
714 Vallejo Elks Lodge B B O 559 643-0201

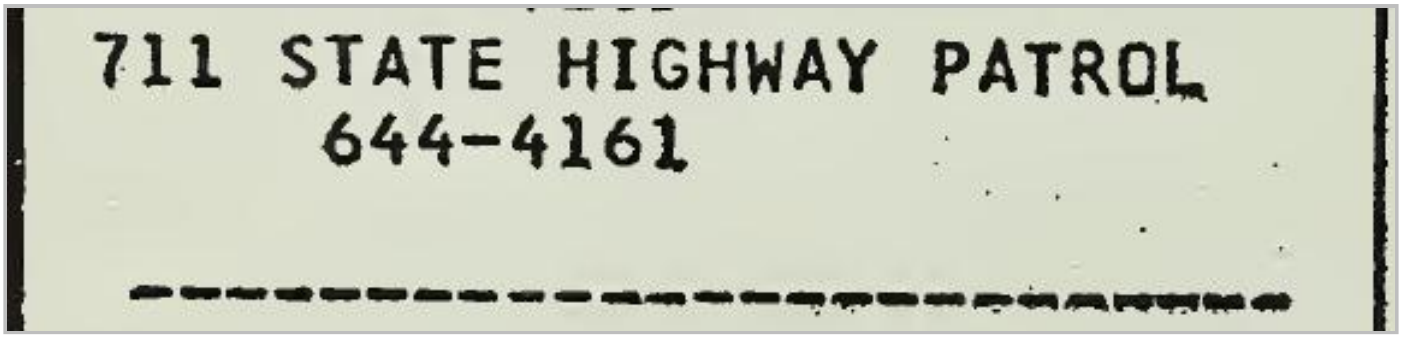
Target Street	Cross Street	Source
-	✓	Polk City Directory

ADMIRAL CALLAGHAN LN 1970

748 Vallejo Rifle Pistol & Trap Range
642-7331

Target Street	Cross Street	Source
-	✓	Polk City Directory

ADMIRAL CALLAGHAN LN 1965



APPENDIX G

Environmental Site Assessment Questionnaires

APPENDIX G

Project Name: Cooke Property

Project No. P2016.001.408

☐ 2010 Crow Canyon Place ▪ Suite 250 ▪ San Ramon, CA 94583	(925) 866-9000 ▪ Fax (888) 279-2698
☐ 2213 Plaza Drive ▪ Rocklin, CA 95765	(916) 786-8883 ▪ Fax (888) 279-2698
☐ 332 Pine Street ▪ Suite 300 ▪ San Francisco, CA 94104	(415) 284-9900 ▪ Fax (888) 279-2698
☐ 6399 San Ignacio Avenue ▪ Suite 150 ▪ San Jose, CA 95119	(408) 574-4900 ▪ Fax (888) 279-2698
☐ 17278 Golden Valley Parkway ▪ Lathrop, CA 95330	(209) 835-0610 ▪ Fax (888) 279-2698
☐ 17675 Sierra Highway ▪ Santa Clarita, CA 91351	(661) 257-4004 ▪ Fax (888) 279-2698
☐ 6 Morgan ▪ Suite 162 ▪ Irvine, CA 92618	(949) 529-3479 ▪ Fax (888) 279-2698

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE FOR CLIENT

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be completed by the user of the phase one environmental site assessment, or their authorized representative.

PART I

1. Property address and Assessor's Parcel Number (APN):

   0052-3[illegible]20-250 ; 0081-490-010

2. Current property owner (name, address, voice/fax number):

   Frank Toller, Sole Trustee to Melvin D. Cooke Trust

3. Date current property owner assumed title of property:

   12-31-2012

4. Current property development/improvements:

   Vacant Property, 12" steel gasline, 18" sewer line exist on Property

5. Past property use, development/improvements:

   Unknown

6. Neighboring property uses:

   Highway 80 + Admiral Callaghan Lane - West
   Turner Parkway + Target Center - North
   Residential Neighborhood - East
   Elevated Apartment Complex - South

PART II

	Yes	No	N/A
1. Are you aware of any environmental cleanup liens against the *property* that are filed under federal, tribal, local or state law?	☐	☒	
2. Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law?	☐	☒	
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?	☐	☒	
4. If a property transaction is occurring in conjunction with this environmental assessment, does the purchase price of this *property* reasonably reflect the fair market value of the *property*?	☒	☐	
5. 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?*	☐	☒	☐
6. Are you aware of any commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, (a) do you know of specific chemicals that are present or once were present at the *property*? (b) do you know of spills or other chemical releases that have taken place at the *property*? (c) do you know of any environmental cleanups that have taken place at the *property*?	☐	☒	
7. 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*?	☐	☒	

If a "Yes" response was provided to any of the above questions, please provide details below:

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Jeb Elmore

Signature: [signature] Date: 10/28/16

APPENDIX H

Qualifications of Environmental Professional

APPENDIX H

SHAWN MUNGER, CHG
PRINCIPAL GEOLOGIST

EDUCATION

BS, Geology, U.C. Davis, 1985

EXPERIENCE

Years with ENGEO: 25
Years with Other Firms: 0

REGISTRATIONS & CERTIFICATIONS

Certified Hydrogeologist, CA, 413
40 Hour HAZWOPER Training, CA
Certified Environmental Manager, NV, 1332
Registered Environmental Assessor II, CA, 20201
Professional Geologist, CA, 5810

SPECIALIZATIONS

- Environmental Assessments and Remediation
- Environmental Restoration
- Water Quality Studies
- Water Wells/Hydrogeology

Since joining ENGEO in 1985, Mr. Munger has been managing groundwater supply evaluations, hydrogeologic studies, chemical assessments, phase I and II site assessment projects, UST site investigations, risk based corrective action (RBCA), VOC remediation, and agricultural impact evaluations. He serves as Principal-in-Charge or Project Manager for environmental and hazardous materials projects involving groundwater hydrology, contaminant fate and transport, and remediation. He is Principal-in-Charge of our on-call contract with DTSC and the environmental components of our on-call contracts with the City of Sacramento and the County of Sacramento.

Selected Project Experience

Seacliff Estates—Richmond, CA
Principal in Charge. Mr. Munger provided oversight, review, and consultation during preparation of phase I and II site assessments and soil remediation. The 12-acre site was formerly part of Kaiser Shipyard No. 3 and was used for ship repair and maintenance along with scrap metal and salvage yards. The property was developed as a single-family residential subdivision.

Renaissance Square—Concord, CA
Project Manager. Mr. Munger provided consultation, data analysis, and field observation. This former automotive dealership was redeveloped as a five-story multi-family residential structure supported on slab-on-grade foundations, with two levels of below-grade parking. Petroleum hydrocarbon-impacted soil was encountered during excavation of the parking structure, which required characterization and remediation. Soil impacts were attributed to former sumps, USTs and hydraulic lifts.

Pleasant Hill BART Station—Walnut Creek, CA
Principal in Charge. Mr. Munger provided oversight, data analysis and consultation during the preparation of a phase II environmental site assessment. The property is an existing BART station that encompasses 20 acres, including the platform/station area, electrical facilities, a parking garage and additional paved parking areas.

Mills Ranch—King City, CA
Principal in Charge. Mr. Munger provided principal oversight of phase I and II environmental site assessments and risk evaluations. The approximate 80-acre property is used for agricultural cultivation and commercial uses. The proposed mixed-use development includes over 400 single-family residential lots.

Select Foods Site/Cross Creek—Hayward, CA
Principal in Charge. Mr. Munger provided principal oversight, consultation, and data analysis. The property was a former processed food facility, a drum recycling business, battery manufacturing operation and a bus assembly plant. Following completion of soil remediation under RWQCB oversight, the property was developed into a single-family residential subdivision.

Southchase Property—West Sacramento, CA
Project Manager. Mr. Munger provided environmental consultation regarding soil contamination and site characterization work. The property is a former farm headquarters with storage structures and orchards.

Westshore—Richmond, CA
Project Manager. Mr. Munger conducted phase I and II site assessments, risk evaluations and prepared a soil management plan. The property was a former automotive manufacturing plant proposed for a multi-unit condominium development, including a 6-story podium structure to include five residential floors with 269 units and one parking floor.

Union Pacific Railroad Corridor—San Jose, CA.
Project Manager. Mr. Munger prepared a phase I and II environmental assessment. Work included a site reconnaissance, historical records research and recovery of soil samples with laboratory analysis. Lead impacted soil was identified which required risk evaluation. This former 1800 lineal foot section of the former Union Pacific Railroad Corridor was proposed for mixed-use development.

Sparklizing Cleaners and Laundry—Fremont, CA
Principal in Charge. Mr. Munger provided principal review and data analysis for this former dry cleaning facility which had released tetrachloroethylene (PCE) to site soil and groundwater. The project site consists of a drycleaning facility located within a commercial/retail center. Drycleaning operations have been conducted at the facility since 1974 and have resulted in chlorinated solvent impacts to soil and groundwater beneath the site. As a result, the CRWQCB opened a Spills, Leaks, Investigations, and Cleanups (SLIC) case and the site was referred to the Alameda County Water District (ACWD) for lead agency oversight. A series of soil and groundwater investigations identified a source area beneath the drycleaner suite and an adjoining retail suite. A CAP submitted to ACWD in 2009 involves using in-situ chemical oxidation (ISCO) to remediate groundwater and vadose zone soil impacts within the source area.

Mare Island, 3rd and Connelly Utility Corridor—Vallejo, CA
Principal in Charge. Mr. Munger provided principal oversight during demolition and soil excavation activities. The project consisted of utility demolition and soil excavation activities

required to prepare for construction of a 300 – foot water and sewer utility corridor along Connelly Street between 3rd Street and Azuar Drive.

Ivy Glen (Former Tredegar)—Fremont, CA
Principal in Charge. Mr. Munger provided oversight of site characterizations, risk evaluations and groundwater monitoring for this for this former industrial facility. The property was a former industrial facility with documented soil and groundwater contamination. Risk assessments allowed redevelopment of the site as a single-family residential subdivision. Groundwater monitoring continues to date as a result of residual docs beneath the property.

County Crossings Property—Antioch, CA
Principal in Charge. Mr. Munger provided environmental consultation and data review with regard to soil and groundwater contamination. Constituents of concern include petroleum hydrocarbons, nitrates and manganese. The approximately 264 acre site includes several former industrial facilities and petroleum pipelines. Soil and groundwater at the site has been impacted with petroleum hydrocarbons, nitrates and manganese. Planned uses include commercial, residential, retail, and a BART-oriented transit village. The center, which is currently in the entitlement phase, is estimated to break ground in 2011.

Arroyo Crossing—Livermore, CA
Principal in Charge. Mr. Munger provided oversight, data analysis and regulatory consultation while ENGEO provided geotechnical and environmental engineering services for this 34-acre site. This former corporation yard and quarry site was developed into a single-family residential subdivision.

620 North Ninth Street—San Jose, CA
Principal in Charge. Mr. Munger provided oversight of soil, groundwater and soil gad characterizations, risk evaluations and remedial action plan preparation. Mr. Munger also closely interacted with RWQCB staff to achieve approval for residential development. The property is a former fruit packing plant and food preparation facility. The proposed development consists of a single-family residential subdivision.

Former SFPP Alignment—Concord, CA
Project Manager. Mr. Munger prepared a Phase I and II environmental assessment for a ± 6,500-foot corridor formerly occupied by the Southern Pacific Railroad (SPRR). Kinder Morgan petroleum pipelines existed within an easement along the property. Work included the recovery of soil and groundwater samples along the SP right of way. The site was a former ± 6,500-foot corridor formerly occupied by the Southern Pacific Railroad. Kinder Morgan petroleum pipelines existed within an easement along the property. The southern portion of the site was crossed by East Bay Municipal Utilities District water distribution lines and a multi-lane highway overpass. The corridor was developed as a self-storage facility.

Gale Ranch Middle School—San Ramon, CA
Principal in Charge. Mr. Munger provided review and supervision of a Preliminary Endangerment Assessment prepared for this school site under the oversight of DTSC. This former site was developed into a public middle school.

Highlands Ranch—Antioch, CA
Principal in Charge. Mr. Munger provided oversight, data analysis, and collaboration with RWQCB personnel. The project site consists of a 140-acre portion of the former Chevron Los Medanos Tank Farm located in Pittsburg, California. The site was historically occupied by 24 crude oil tanks and four wax ponds. Remediation of the crude oil tank and wax pond locations was conducted according to a remedial action plan (RAP) and oversight was provided by the CRWQCB. Remediation was performed over a period of four months and consisted of excavating approximately 110,000 cubic yards of impacted soil and placing the material in windrows for ex-situ bioremediation.

Hercules Property—Hercules, CA
Project Manager. Mr. Munger provided oversight of a phase I environmental site assessment, site asbestos survey, site characterization, and demolition observation/contaminant assessment. The project area consists of ± 167 acres located near and along the southeastern shore of San Pablo Bay in Hercules. The property was once a portion of a 1300-acre manufacturing facility that was operated by DuPont from 1879 to 1913 and Hercules Incorporated from 1913 to 1979. The planned development includes single/multi family residential development with some commercial components.

Gold Rush Ranch and Golf Resort—Sutter creek, CA
Principal in Charge. Mr. Munger provided principal oversight during the preparation of a preliminary endangerment report, including soil, groundwater and surface water sampling. The project site consists of 945 acres of undeveloped land located near the City of Sutter Creek, California. The proposed development plan for the site involves the Gold Rush Ranch and Golf Resort, which includes an 18-hole championship golf course, 1,334 new homes, a commercial center, and open space. The client has entered into a VCA with the Department of Toxic Substances Control (DTSC) to address historic mine tailings at the site. A PEA was prepared to evaluate human health risks associated with elevated arsenic in tailings, soil, and surface water at the site. The PEA was approved by DTSC in 2009. Based on the findings of the PEA, a removal action workplan (RAW) will be prepared to address the human health risks associated with the arsenic impacts.

1000 Howe Road—Martinez, CA
Principal in Charge. Mr. Munger provided oversight and analysis for this soil remediation project. Mr. Munger worked closely with RWQCB personnel to develop a cost effective and timely closure for site closure and approval for residential development. The site is occupied by a general engineering contractor and was a former bus leasing company. Improvements at the property included an office/warehouse structure and an equipment yard. The proposed development consists of a single-family residential subdivision.